



Pushing Performance



PEOPLE. POWER. PARTNERSHIP.

# HARTING Industrial Connectors Han<sup>®</sup>

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## Economic and Reliable Connections

### Specifications

DIN EN 60664-1 (VDE 0110-1)  
Principles,  
requirements and tests

DIN EN 61984 (VDE 0627)  
Connectors,  
Safety requirements and tests

### Note:

The connectors included in this catalogue should not be coupled or decoupled under electrical load unless otherwise stated.

The connector must not be powered-up in the un-mated condition. This is also true if the connector is closed with a protection cover, unless otherwise stated.

The provision of protection against electric shock is the responsibility of the user. Protection can be achieved by the use of HARTING hoods and housings coupled with/or alternatively appropriate installation methods provided by the user.

Connectors of the same or different series being mounted side by side may be protected against incorrect mating by the use of coding options.

### Standard

DIN EN 175301-801

### Approvals

UL File No. E 235076 ([www.ul.com](http://www.ul.com))

CSA File No. LR 18753, SEV  
for inserts

GL certificate No. 61754 - 14 HH



Certified according to EN ISO 9001  
in design/development, production,  
installation and servicing

### General information

It is the customer's responsibility to check whether the components illustrated in this catalogue also comply with different regulations from those stated in special fields of applications.

We reserve the right to modify designs or substance of content in order to improve quality, keep pace with technological advancement or meet particular requirements in production.

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### Terminations

- Screw terminal
- Crimp terminal
- Cage-clamp terminal
- Wrap terminal
- Solder terminal
- Axial-screw terminal
- Rapid terminal
- IDC termination

### Inserts

- Leading protective ground
- Polarised for correct mating
- Interchangeability of male and female inserts in hoods and housings
- Captive fixing screws
- Can be used with hoods and housings, or for rack and panel applications

### Hoods/Housings

- Standard Hoods/Housings
- Hoods/Housings for harsh environmental requirements
- Hoods/Housings for intrinsically safe plant
- Degree of protection IP 65
- Electrical connection with protective ground
- High mechanical strength and vibration-resistance ensured by locking levers
- Spring-loaded covers in shockproof thermoplastic or metal covers, both lockable

### Accessories

- Extensive range of cable protection and sealing accessories
- Protective covers available
- Coding options for incorrect mating protection

For "non standard applications" we can manufacture designs to match your requirements. Please discuss requirements with us.

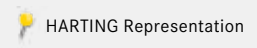
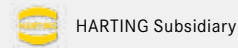
HARTING components help you to construct top quality products – economically and in line with market requirements.

# Transforming customer wishes into concrete solutions



The HARTING Technology Group is skilled in the fields of electrical, electronic and optical connection, transmission and networking technology, as well as in manufacturing, mechatronics and software creation. The Group uses these skills to develop customized solutions and products such as connectors for energy and data-transmission/data-networking applications, including, for example, mechanical engineering, rail technology, wind energy plants, factory automation and the telecommunications sector. In addition, HARTING also produces electro-magnetic components for the automobile industry and offers solutions in the field of housing technology and shop systems.

The HARTING Group currently comprises 58 sales companies and production plants worldwide employing a total of about 5,500 staff.



### We aspire to top performance.

Connectors ensure functionality. As core elements of electrical and optical termination, connection and infrastructure technologies, they are essential in enabling the modular construction of devices, machines and systems across an extremely wide range of industrial applications. Their reliability is a crucial factor guaranteeing smooth functioning in the manufacturing area, telecommunications, applications in medical technology – in short, connectors are at work in virtually every conceivable application area. Thanks to the ongoing development of our technologies, our customers enjoy investment security and benefit from durable, long-term functionality.

### Wherever our customers are, we're there.

Increasing industrialization is creating growing markets that are characterized by widely diverging demands and requirements. What these markets all share in common is the quest for perfection, increasingly efficient processes and reliable technologies. **HARTING** is providing these technologies – in Europe, the Americas and Asia. In order to implement customer requirements in the best possible manner, the **HARTING** professionals at our international subsidiaries engage in up-close, partnership-based interaction with our customers, right from the very early product development phase.

Our on-site staff form the interface to the centrally coordinated development and production departments. In this way, our customers can rely on consistently high, superior product quality – worldwide.

### Our claim: Pushing Performance.

**HARTING** provides more than optimally attuned components. In order to offer our customers the best possible solutions, on request **HARTING** contributes a great deal more and is tightly integrated into the value-creation process.

From ready-assembled cables through to control racks or ready-to-go control desks. Our aim is to generate maximum benefit for our customers – with no compromises!

### Quality creates reliability – and warrants trust.

The **HARTING** brand stands for superior quality and reliability – worldwide. The standards we set are the result of consistent, stringent quality management that is subject to regular certifications and audits.

EN ISO 9001, the EU Eco-Audit and ISO 14001:2004 are key elements here. We take a proactive stance towards new requirements, which is why **HARTING** is the first company worldwide to have obtained the new IRIS quality certificate for rail vehicles.



**HARTING technology creates added value for customers.** Technologies by **HARTING** are at work worldwide. **HARTING's** presence stands for smoothly functioning systems powered by intelligent connectors, smart infrastructure solutions and sophisticated network systems. Over the course of many years of close, trust-based cooperation with its customers, the **HARTING** Technology Group has become one of the leading specialists globally for connector technology. We offer individual customers specific and innovative solutions that go beyond the basic standard functionalities. These tailored solutions deliver sustained results, ensure investment security and enable customers to achieve significant added value.

**Opting for HARTING opens up an innovative, complex world of concepts and ideas.**

In order to develop and produce connectivity and network solutions serving an exceptionally wide range of connector applications in a professional and cost-effective manner, **HARTING** not only commands the full array of conventional tools and basic technologies. Above and beyond these capabilities, **HARTING** is constantly harnessing and refining its broad base of knowledge and experience to create new solutions that also ensure continuity. To secure its lead in know-how, **HARTING** draws on a wealth of sources from its in-house research and applications.

Salient examples of these sources of innovative knowledge include microstructure technologies, 3D design and connection technolo-

gy, high-temperature and ultrahigh-frequency applications that are finding use in telecommunications and automation networks, in the automotive industry, or in industrial sensor and actuator applications, RFID and wireless technologies, in addition to packaging and housing made of plastics, aluminum and stainless steel.

**HARTING overcomes technological limitations.**

Drawing on the comprehensive resources of the group's technology pool, **HARTING** devises practical solutions for its customers. Whether this involves industrial networks for manufacturing automation, or hybrid interface solutions for wireless telecommunication infrastructures, 3D circuit carriers with microstructures, or cable assemblies for high-temperature applications in the automotive industry – **HARTING** technologies offer not only components, but comprehensive solutions attuned to individual customer requirements and preferences. The range of cost-effective solutions covers ready-to-use cable configurations, completely assembled backplanes and board system carriers, as well as fully wired and tested control panels.

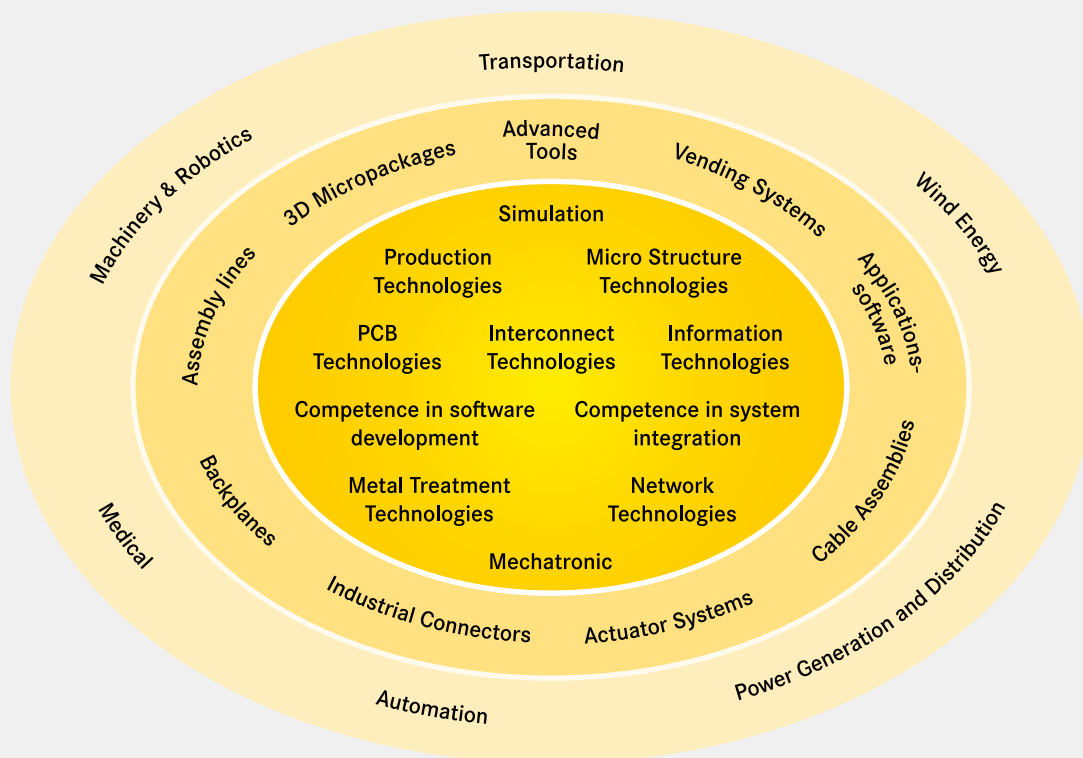
In order to ensure the future-proof design of RF and EMC-compatible interface solutions, the central **HARTING** laboratory (certified to EN 45001) employs simulation tools, as well as experimental, testing and diagnostics facilities all the way to scanning electron microscopes. In addition to product and process suitability considerations, lifecycle and environmental aspects play a key role in the selection of materials and processes.



HARTING's knowledge is practical know-how that generates synergy effects.

HARTING commands decades of experience with regard to the applications conditions involved in connections in telecommunications, computer, network and medical technologies, as well as industrial automation technologies, e.g. in the mechanical engineering and plant engineering areas, in addition to the power generation industry and the transportation sector. HARTING is highly

conversant with the specific application areas in all of these technology fields. In every solution approach, the key focus is on the application. In this context, uncompromising, superior quality is our hallmark. Every new solution found invariably flows back into the HARTING technology pool, thereby enriching our resources. And every new solution we go on to create will draw on this wealth of resources in order to optimize each and every individual solution. HARTING is synergy in action.





The **HARTING eCatalogue / eShop** can be found on our homepage at [www.HARTING.com](http://www.HARTING.com) or at the direct link [www.eCatalogue.HARTING.com](http://www.eCatalogue.HARTING.com).

The HARTING e-Catalogue is your platform for conveniently selecting individual products as well as configuring complete solutions. Our comprehensive product pages provide you with all necessary technical information and CAD files in various formats for downloading. You may also contact our technical sales department directly.

Find out about **product innovations and news** on the start page of the HARTING e-Catalogue or go directly to [www.product-news.HARTING.com](http://www.product-news.HARTING.com).

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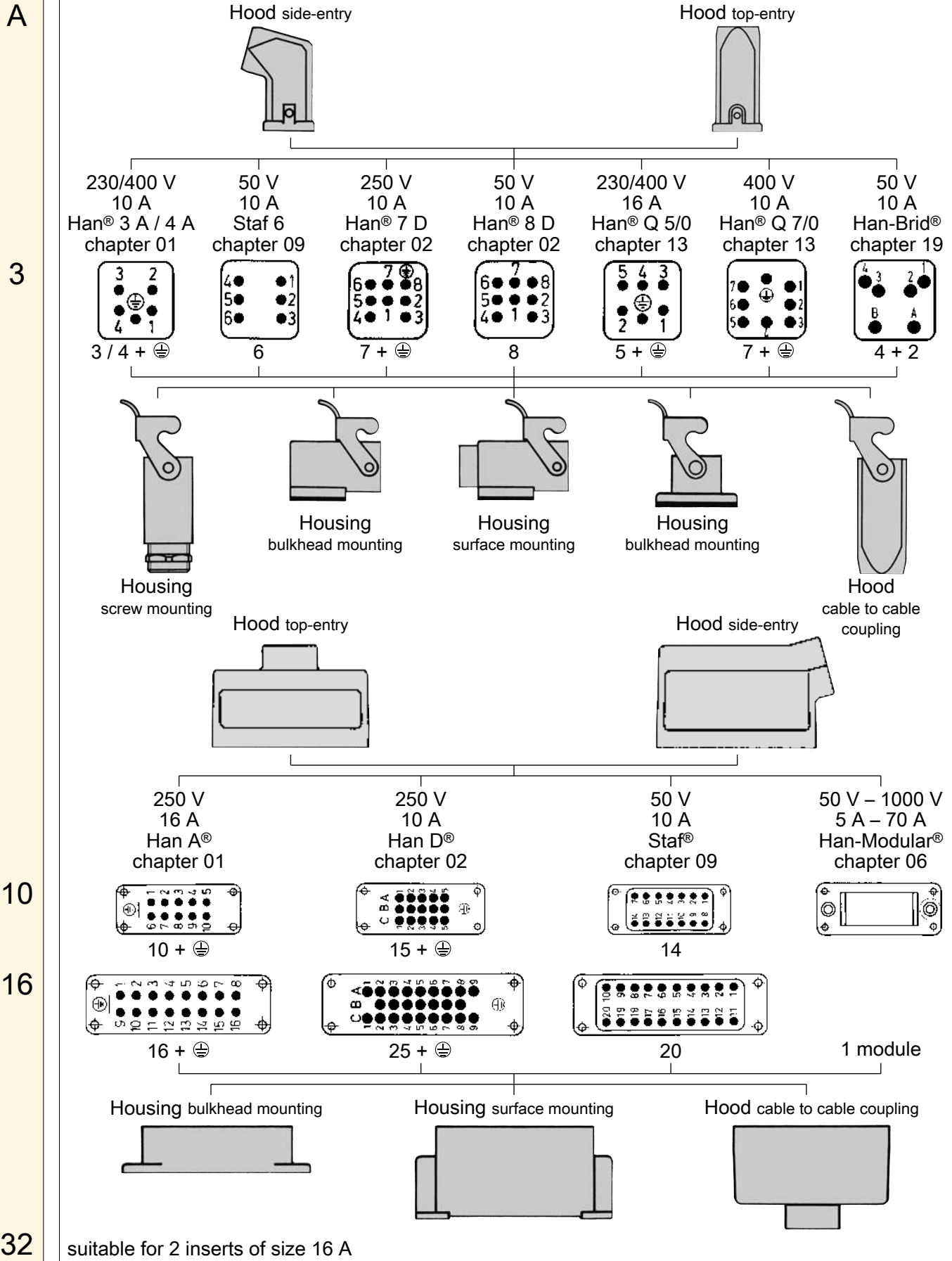
[www.eShop.HARTING.com](http://www.eShop.HARTING.com)



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Declaration of Conformity .....	<b>Info 00.24</b>

Info

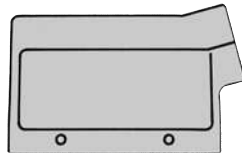
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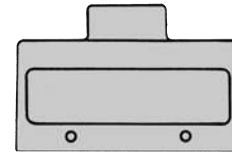
Info  
00  
·  
2

Size Description

B



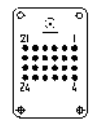
Hood side-entry



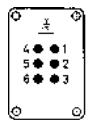
Hood top-entry

250 V 10 A Han D® chapter 02	250 V 10 A Han DD® chapter 02	500 V 16 A Han E® Han® ES chapter 03	500 V 16 A Han® EE Han® EEE chapter 03	400/690 V 35 A Han® HsB chapter 07	830 V 16 A Han Hv E® Han® Hv ES chapter 04	160 V – 690 V 10 A – 100 A Han-Com® chapter 05	50 V – 5000 V 5 A – 200 A Han- Modular® chapter 06
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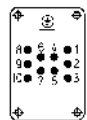
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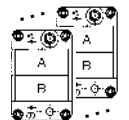
24 + ⚡



6 + ⚡

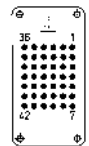


10 + ⚡

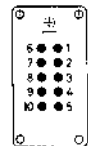


2 modules

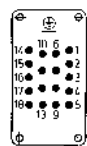
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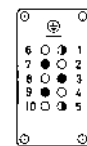
42 + ⚡



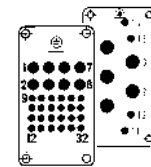
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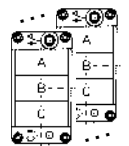
18 + ⚡



3 + ⚡

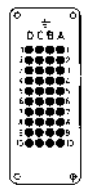


4/4 + ⚡  
8/24 + ⚡

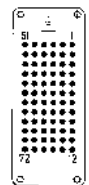


3 modules

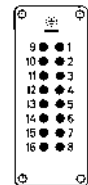
16



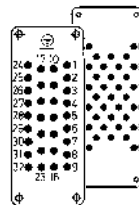
40 + ⚡



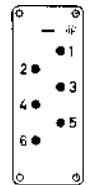
72 + ⚡



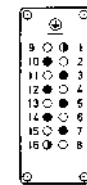
16 + ⚡



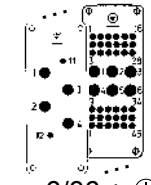
40 + ⚡



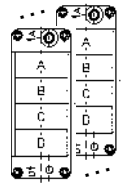
6 + ⚡



6 + ⚡

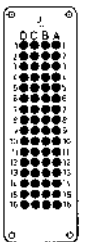


6/36 + ⚡  
4/2 + ⚡

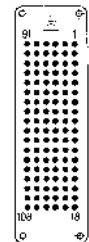


4 modules

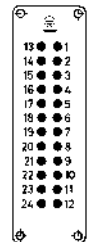
24



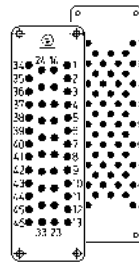
64 + ⚡



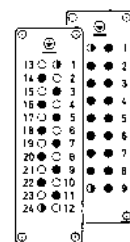
108 + ⚡



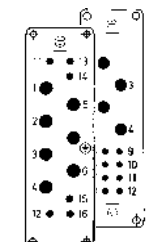
24 + ⚡



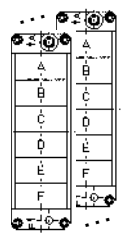
64 + ⚡



16 + ⚡  
10 + ⚡

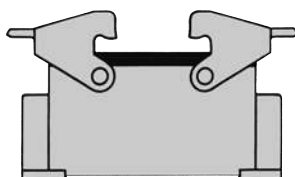


4/8 + ⚡  
6/6 + ⚡

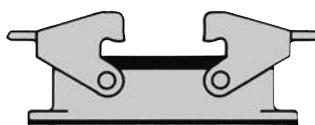


6 modules

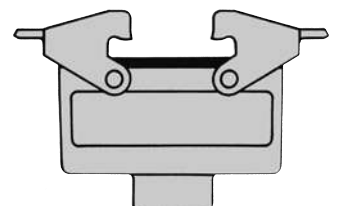
Housing surface mounting



Housing bulkhead mounting



Hood cable to cable coupling



32

suitable for 2 inserts of size 16 B

48

suitable for 2 inserts of size 24 B

Info

For a complete connector components may be ordered from the following sub headings

Info

## Cable entry protection

- Universal cable glands
- Special cable clamp with strain relief, bell mouthed cable fitting and anti-twist devices
- Cable gland with normal or multiple seal
- Extensive range of accessories

## Hoods

- low or high construction
- top or side cable entry
- 1 or 2 locking levers

## Male insert with

- screw terminal or crimp terminal (order contacts separately) or cage-clamp terminal

## Female insert with

- screw terminal or crimp terminal (order contacts separately) or cage-clamp terminal

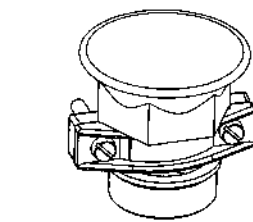
## Housings

- Housing (bulkhead mounting) with or without thermoplastic or metal covers
- 1 or 2 locking levers
- Housing (surface mounting) low or high construction with or without thermoplastic or metal covers
- 1 or 2 locking levers
- 1 or 2 cable entries
- Hood (cable to cable) low or high construction for cable to cable connections

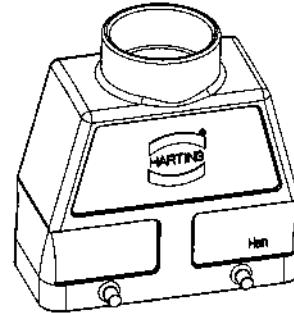
## Accessories

- Protective covers available
- Code and guide pins for coding
- Special insert fixing screws for use without hoods and housings
- Label according to CSA-approval

Suitable hoods and housings will be found on the same page.



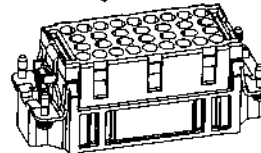
Cable clamp



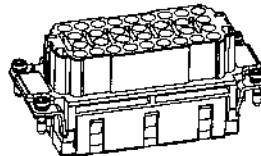
Hood



Male contacts



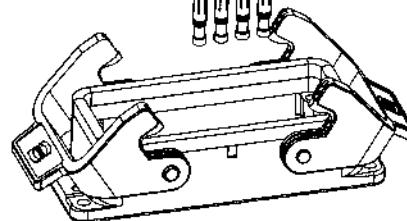
Male insert



Female insert



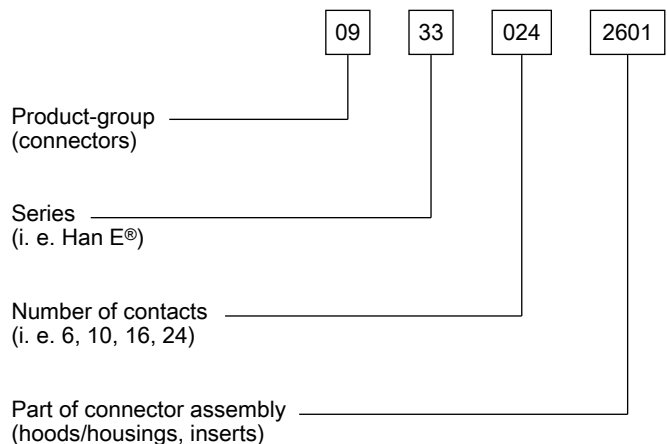
Female contacts



Housing

## Part number explanation

Our computerized ordering system uses the following code:



The connector's housing, sealing and locking mechanism protect the connection from external influences such as mechanical shocks, foreign bodies, humidity, dust, water or other fluids such as cleansing and cooling agents, oils, etc. The degree of protection the housing offers is explained in the IEC 60529, DIN EN 60529, standards that categorize enclosures according to foreign body and water protection.

The following table shows the different degrees of protection.

Code letters  
(International Protection)



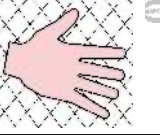

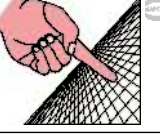

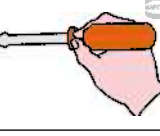

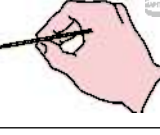

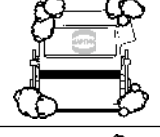

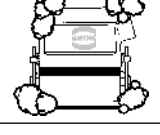

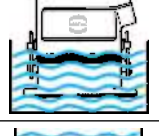


**IP**

First Index Figure  
(Foreign bodies protection)

**6**

Second Index Figure  
(Water protection)

**5**

Index figure	Degree of protection			Index figure	Degree of protection		
0	No protection		No protection against accidental contact, no protection against solid foreign bodies	0	No protection against water		No protection against water
1	Protection against large foreign bodies		Protection against contact with any large area by hand and against large solid foreign bodies with $\varnothing > 50$ mm	1	Drip-proof		Protection against vertical water drips
2	Protection against medium sized foreign bodies		Protection against contact with the fingers, protection against solid foreign bodies with $\varnothing > 12$ mm	2	Drip-proof		Protection against water drips (up to a 15° angle)
3	Protection against small solid foreign bodies		Protection against tools, wires or similar objects with $\varnothing > 2.5$ mm, protection against small foreign solid bodies with $\varnothing > 2.5$ mm	3	Spray-proof		Protection against diagonal water drips (up to a 60° angle)
4	Protection against grain-shaped foreign bodies		As 3 however $\varnothing > 1$ mm	4	Splash-proof		Protection against splashed water from all directions
5	Protection against injurious deposits of dust		Full protection against contact. Protection against interior injurious dust deposits	5	Hose-proof		Protection against water (out of a nozzle) from all directions
6	Protection against ingress of dust		Total protection against contact. Protection against penetration of dust	6	Strong hose-proof		Protection against strong water (out of a nozzle) from all directions
				7	Protected against immersion		Protected against temporary immersion
				8	Water-tight		Protected against water pressure
				9K*	Protected against high-pressure		Protected against water from high-pressure / steam jet cleaners

Description according to IEC 60529  
\* ... IPX9K acc. to ISO 20653

Info

## Standard hoods/housings for industrial connectors

Field of application	For excellent mechanical and electrical protection in demanding environments, for example, in the automobile and mechanical engineering industries also for process and regulation control applications
Distinguishing feature	Hoods/housings colour-coded grey (RAL 7037)
Material of hoods/housings	Die-cast light alloy
Locking levers	Han-Easy Lock®
Cable entry protection	Optional special cable clamp for hoods with strain relief, bell mouthed cable fitting and anti-twist devices



## Han® M hoods/housings for more demanding environmental requirements

Field of application	For all applications where aggressive environmental conditions and extreme climatic atmospheres are encountered
Distinguishing feature	Hoods/housings colour-coded black (RAL 9005)
Material of hoods/housings	Die-cast light alloy, corrosion resistant
Locking levers	Corrosion resistant stainless steel
Cable entry protection	Special cable clamp for hoods with strain relief, bell mouthed cable fitting and anti-twist devices



## Han® EMC hoods/housings for higher EMC requirements

Field of application	For sensitive interconnections that have to be shielded against electrical, magnetic or electro-magnetic interferences
Distinguishing feature	Electrically conductive surface, internal seal
Material of hoods/housings	Die-cast light alloy
Locking levers	Han-Easy Lock®
Cable entry protection	EMC cable clamp in order to connect the cable shielding to the hood without interruption of the shielding



## Han® HPR hoods/housings for harsh outdoor environments

Field of application	For external electrical interconnections in vehicles, in highly demanding environments and wet areas, as well as for sensitive interconnections that have to be shielded
Distinguishing feature	Hoods/housings colour-coded black, internal seal (RAL 9005)
Locking parts	Stainless steel
Material of hoods/housings	Die-cast light alloy, corrosion resistant
Cable entry protection	Optional universal cable clamp for hoods with strain relief, or special cable clamp with bell mouthed cable fitting and anti-twist devices (use of adapter is necessary)



## Han-INOX® hoods/housings for harsh environments

Field of application	For excellent mechanical and electrical protection in demanding environments, for example, in the food, automobile and mechanical engineering industries also for process and regulation control applications
Distinguishing feature	Matt-finished metal surface
Material of hoods/housings	Stainless steel
Locking levers	Stainless steel
Cable entry protection	Standard cable gland (stainless steel)



## Han-Eco® – Lightweight hood/housing made of high-performance plastic

Field of application	Industrial environments, outdoor applications
Distinguishing feature	Black plastic hoods / housings
Material of hoods/housings	Polyamide (glass-fibre reinforced)
Locking levers	Double locking lever / single locking lever (10 A / 16 A) (polyamide, glass-fibre reinforced)
Cable entry protection	Integrated plastic cable gland (optional) for sizes 6 B, 10 B, 16 B, 24 B / 10 A, 16 A



## Han-Yellok® – Compact hood/housing in a shapely design

Field of application	Industrial environments (e.g. in robotics, machinery)
Distinguishing feature	Internal locking mechanism, push-buttons, two-part hood
Material of hoods/housings	Zinc die-cast, aluminum
Locking parts	Stainless steel and polyamide
Cable entry protection	Standard cable gland (with metric threads M20 / M25 / M32 / M40) for hoods with strain relief or special cable glands



## Recommended tightening torque for housings, bulkhead mounting

Series	Number of screws	Size of screws	Recommended Tightening torque (Nm)	Remarks
Han® 3 A	2	M 3	0.8 ... 1.0	Gasket
Han® 10 A / 16 A	4	M 3	0.8 ... 1.0	Gasket
Han® 10 EMV / 16 EMV	4	M 3	min. 1.0	O-ring
Han® 32 A	4	M 4	0.8 ... 1.0	Gasket
Han® 6 B / 10 B / 16 B / 24 B	4	M 4	0.8 ... 1.0	Gasket
Han® 32 B	4	M 5	min. 2.5	O-ring
Han® 48 B	4	M 6	min. 3.0	O-ring
Han® 3 HPR	2	M 4	min. 1.0	O-ring
Han® 6 / 10 / 16 / 24 HPR	4	M 6	min. 3.0	O-ring
Han® 48 HPR	4	M 8	min. 5.0	O-ring

To offer safe protection the surface condition for mounting panel should be according to DIN 4766:

- Waviness  $\leq 0.2$  mm on 200 mm distance
- Roughness  $R_a \leq 16$   $\mu$ m

## General remark for assembling

During assembly and handling of the connector, any kind of damage to the surface of the housing must be avoided to guarantee the correct surface protection.

Info

## Housing with 2 levers Han-Easy Lock®

- easy operation
- high degree of pressure tightness
- reliable locking guaranteed by 4 locking points
- space saving mounting
- ideal for mounting side by side
- cable to cable connection is possible
- high seal force

Details of Han-Easy Lock® see chapter 31



## Housing with 1 lever Han-Easy Lock®

- easily accessible, even with side entry
- possibility to lock protective covers on the housing
- cable to cable connection is possible
- 2 locking points on the longitudinal axis



## 1 lever in central position

- easily accessible, even with side entry
- 2 locking points on the lateral axis
- space saving mounting
- ideal for mounting side by side
- single hand operation



## Screw locking / toggle locking

- hexagon nuts tightened with spanner
- highest degree of pressure tightness
- easily accessible, also with side entry
- use of tools avoids access by unauthorized persons



## Hood with 2 levers Han-Easy Lock®

- easy operation
- high degree of pressure tightness
- ideal for mating to housings with protection cover
- high seal force

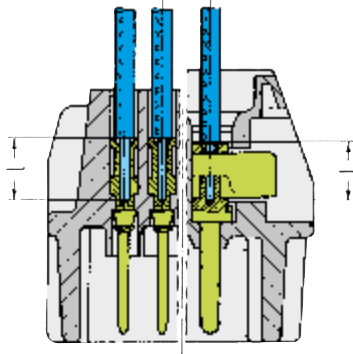
Details of Han-Easy Lock® see chapter 31



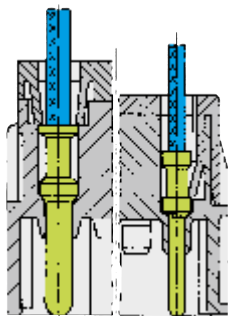
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## Crimp connection



Han DD®  
 Han D®  
 R 15  
 Han-Modular® (10 A)  
 Han E®  
 Han A®  
 Han Hv E®



Han-Com® (40 A)  
 Han-Modular® (40 A)  
 Han E®  
 Han A®  
 Han Hv E®  
 Han® EE  
 Han® EEE  
 Han-Modular® (16 A)  
 Han® Q

A perfect crimp connection is gastight, therefore corrosion free and amounts to a cold weld of the parts being connected. For this reason, major features in achieving high quality crimp connections are the design of the contact crimping parts and of course the crimping tool itself. Wires to be connected must be carefully matched with the correct size of crimp contacts. If these basic requirements are met, users will be assured of highly reliable connections with low contact resistance and high resistance to corrosive attack.

The economic and technical advantages are:

- Constant contact resistance as a result of precisely repeated crimp connection quality
- Corrosion free connections as a result of cold weld action
- Pre-preparation of cable forms with crimp contacts fitted
- Optimum cost cable connection

Requirements for crimp connectors are laid down in DIN EN 60352-2 as illustrated in the table.

### Pull out force of stranded wire

The main criterion by which to judge the quality of a crimp connection is the retention force achieved by the wire conductor in the terminal section of the contact. DIN EN 60352-2 defines the extraction force in relation to the cross-section of the conductor. When fitted using HARTING crimping tools and subject to their utilization in an approved manner, our crimp connectors comply with the required extraction forces.

### Crimping tools

Crimping tools (hand operated or automatic) are carefully designed to produce with high pressure forming parts a symmetrical connection of the crimping part of the contact and the wire being connected with the minimum increase in size at the connection point. The positioner automatically locates the crimp and wire at the correct point in the tool.

A ratchet in the tool performs 2 functions:

- It prevents insertion of the crimp into the tool for crimping before the jaws are fully open
- It prevents the tool being opened before the crimping action is completed

Identical, perfectly formed, connections can be produced using this crimping system.

Crimp-cross section



HARTING-crimp profile



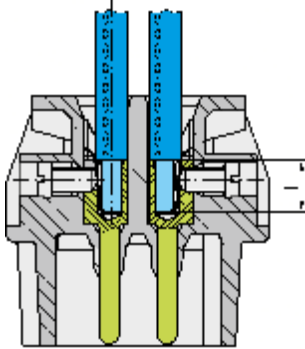
BUCHANAN crimp profile

Tensile strength of crimped connections  
 (Table 1 of the DIN EN 60352-2)

Conductor cross-section		Tensile strength
mm <sup>2</sup>	AWG	N
0.05	30	6
0.08	28	11
0.12	26	15
0.14		18
0.22	24	28
0.25		32
0.32	22	40
0.5	20	60
0.75		85
0.82	18	90
1.0		108
1.3	16	135
1.5		150
2.1	14	200
2.5		230
3.3	12	275
4.0		310
5.3	10	355
6.0		360
8.4	8	370
10.0		380

Wire gauge		Internal diameter Ø (mm)	Stripping length l (mm)		
(mm <sup>2</sup> )	AWG		Han® DD Han® D R15 Han-Modular® (10 A)	Han E® Han A® Han Hv E®	Han® C
0.14 ... 0.37	26 ... 22	0.9	8	-	-
0.5	20	1.15	8	7.5	-
0.75	18	1.3	8	7.5	-
1	18	1.45	8	7.5	-
1.5	16	1.75	8	7.5	9.5
2.5	14	2.25	6	7.5	9.5
4	12	2.85	-	7.5	9.5
6	10	3.5	-	-	9.5
10	8	4.3	-	-	12-18

## Screw terminal



Screw terminals meet VDE 0609 /EN 60 999. Dimensions and tightening torques for testing are shown in following table.

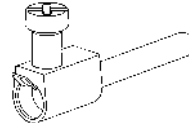
Screw dimensions and tightening torque for screw terminals

Wire gauge (mm <sup>2</sup> )	1.5	2.5	4	6	10	16
Screw thread	M3	M3	M3.5	M4	M4	M6
Test moment of torque (Nm)	0.5	0.5	0.8	1.2	1.2	1.2*
min. pull-out for stranded wire (N)	40	50	60	80	90	100

\* for screws without heads

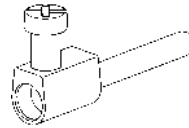
The relevant regulations state that in the case of

- Terminals with wire protection



the use of ferrules is not necessary. Series Han E<sup>®</sup>, Han<sup>®</sup> HsB, Han Hv E<sup>®</sup>, Han<sup>®</sup> K 6/12, Han<sup>®</sup> K 6/6

- Terminals without wire protection



The insulation is first stripped and then a wire ferrule must be used.

Series Han<sup>®</sup> K 4/x, Han A<sup>®</sup>, Staf<sup>®</sup>

## Screw terminal

Inserts	Wire protection		min. wire gauge		max. wire gauge*		Stripping length mm
	Yes	No	mm <sup>2</sup>	AWG	mm <sup>2</sup>	AWG	
Han <sup>®</sup> 3 A, Han <sup>®</sup> 4 A		X	0.75	18	1.5	16	4.5
Han <sup>®</sup> 10 A, 16 A, 32 A		X	0.75	18	2.5	14	7.5
Han E <sup>®</sup> , Hv E <sup>®</sup>	X		0.75	18	2.5	14	7.5
Han <sup>®</sup> HsB	X		1.5	16	6	10	11.5
Han <sup>®</sup> K 6/6, K 6/12 (signal contacts)	X		0.2	24	2.5	14	7.5
Han <sup>®</sup> K 4/2, K 4/8 (signal contacts)		X	0.5	20	2.5	14	7.5
Han <sup>®</sup> K 4/0, K 4/2, K 4/8 (power contacts)		X	1.5	16	16	6	14
Han E <sup>®</sup> AV, Han D <sup>®</sup> AV	X		0.2	24	2.5	14	8 ... 11
Staf <sup>®</sup>		X	0.5	18	1.5	16	4.5

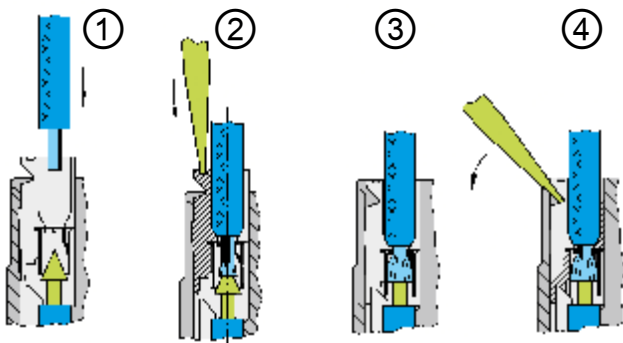
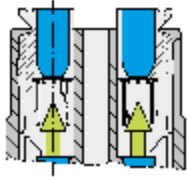
\* Rated wire gauge according to DIN EN 60 999-1

## Recommended screw drivers and tightening torques

Screw size	Connector type	Tightening torque (Nm)	Tightening torque (lbft)	Recommended screw driver
M2.5	Cover / cable clamp screws: Han® Megabit, Han® Gigabit, Han® Shielded Module	0.40	0.30	PH 1
M3	Screw terminals: Han® 3 A, Han® 4 A, Han® Q 5/0 (PE), Han® Q 7/0 (PE), Staf®	0.25	0.20	slotted 0.4 x 2.5
M3	Screw terminals: Han D® AV, Han E® AV, Han® K 6/6, Han® K 6/12 (signal)	0.50	0.40	slotted 0.5 x 3.0
M3	Screw terminals: Han® 10A ... 32A, Han® E, Han Hv E®, Han® HsB	0.50	0.40	slotted 0.6 x 3.5 or PH 1
M3	Screw terminals: Han® E High Temp, Han® Thermocouple	0.50	0.40	slotted 0.6 x 3.5
M3	Cable clamp screws: Han-Quintax®, Han-Quintax® High Density, Han® D Coax, Han® E Coax	0.70	0.50	slotted 0.6 x 3.5
M3	Cable clamp screws: Han® D-Sub, USB Module	0.50	0.40	slotted 0.6 x 3.5 or PH 1
M3	Fixing screws: Connectors sizes 10 A, 16 A	0.50	0.40	slotted 0.6 x 3.5 or PH 1
M3	Fixing screws: Connectors sizes 6 B ... 24 B	0.50	0.40	slotted 0.6 x 3.5 or PH 2
M3	Ground terminals: Han-Modular® Hinged frames 1 ... 2.5 mm <sup>2</sup>	0.80	0.60	slotted 0.6 x 3.5 or PH 2
M3	Han® guiding pins and bushes	0.50	0.40	slotted 1 x 6.0
M3.5	Ground terminals: Han® 10 A, Han® 16 A, Han 15 D®, Han 25 D®	0.80	0.60	slotted 0.6 x 3.5 or PH 1
M4	Screw terminals: Han® HsB	1.20	0.90	slotted 0.6 x 3.5 or PH 1
M4	Fixing screws: Han-Yellock®	1.20	0.90	slotted 0.8 x 4.5 or PH 2
M4	Ground terminals: Han-Modular® Hinged frames 4 ... 10 mm <sup>2</sup>	1.20	0.90	slotted 0.6 x 3.5 or PH 2
M4	Ground terminals: Han E®, Han® ES, Han® ESS, Han® ES Press, Han Hv E®, Han® Hv ES, Han E® High Temp, Han 40 D®, Han 64 D®, Han DD®, Han® K 8/24, Han® K 4/X, Han® K 6/12, Han® K 6/36	1.20	0.90	slotted 0.8 x 4.5 or PH 2
M5	Ground terminals: Han® HsB, Han® K12/2, Han® K4/X, Han® K6/12, Han® K6/36	2.00	1.40	slotted 0.8 x 4.5 or PH 2
M6	Screw terminals: Han® K power contacts, Han-Eco® PE module	for Han® K see chapter 05, Han-Eco® PE module (1.2-3 Nm)		slotted 0.8 x 4.5

Increasing the tightening torque does not improve considerably the contact resistances. The torque moments were determined when optimum mechanical, thermal and electrical circumstances were given. If the recommended figures are considerably exceeded the wire or the termination can be damaged.

## Han-Quick Lock® termination technique



This new termination technique from HARTING combines the reliability and the simple operation of the cage clamp termination with the low space requirements of crimp technology.

Han-Quick Lock® is ideally suited to high contact densities and is considerably superior over other termination techniques. No other technology is so simple, space saving and fast. For this vibration safe termination, no special tools are necessary.

- Fast, simple and robust termination technique
- Field assembly without a special tool
- Compatible also to inserts with other termination technologies
- Combines high contact density similar to crimp termination with the simple connection like a cage clamp terminal
- For stranded wire according to IEC 60228 Class 5

### Insert connectors:

- Han® 3 A
- Han® 4 A
- Han® 7 D
- Han® 8 D
- Han® Q 4/2
- Han® Q 5/0
- Han® Q 8/0
- Han® Q 12/0
- Han® EE modules
- Han® DD modules
- Han® PushPull Power 4/0

### Technical characteristics:

#### Material

Isolation body	Polycarbonate
Active termination element	Polycarbonate
Quick-Lock spring	Stainless steel
Contact	Copper alloy

#### Blue slide

Terminal cross-section  
0.5 ... 2.5 mm<sup>2</sup> / AWG 20 ... 14

#### Black slide

Terminal cross-section  
0.25 ... 1.5 mm<sup>2</sup> / AWG 23 ... 16

Stripping length

10 mm

Insulating resistance

> 10<sup>10</sup> Ohm

Flammability

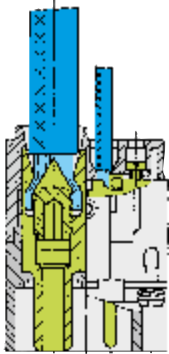
according to UL 94 V 0

Termination tool

Screwdriver  
0.4 x 2.5 mm resp.  
0.5 x 3.0 mm (recommended for wire gauges > 1.5 mm<sup>2</sup>)

Info

## Axial screw terminal



This termination combines the benefits of screw and crimp terminations:

- Less space required
- Easy handling
- No special tools

### Remarks on the axial screw technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

#### Background:

According to DIN EN 60 228 for cables and insulated wires the wire gauge will be determined by conductance ( $\Omega/\text{km}$ ) and maximum wire diameter. A minimum cable diameter is not specified! (Example: nominal wire gauge =  $95 \text{ mm}^2$  → real, geometric wire gauge =  $89 \text{ mm}^2$ )

#### Recommendation:

If you want to apply the axial screw technique in combination with cables that have cross sections extremely deviating from the nominal value, this must be checked separately.

#### Strain relief:

In order to ensure that the contact is protected against radial stress, you must fix the cable at an adequate distance from the terminal.

Details for professional strain relief design can be found in the standard DIN VDE 0100-520: 2003-06 (see enclosed table).

Outer cable diameter (mm)	Maximum fixing distance (mm)	
	horizontal	vertical
$D \leq 9$	250	400
$9 < D < 15$	300	400
$15 < D < 20$	350	450
$20 < D < 40$	400	550

#### Cables:

The axial screw technology is developed for wires according to DIN EN 60 228 class 5 (see table: Wire assembly according to DIN EN 60 228). Deviating cable assemblies have to be tested separately.

#### Assembly remarks:

Before starting the assembly the user must ensure that the axial cone is screwed fully downward to completely open the contact chamber.

After stripping the cable insulation the strands must not be twisted and the maximum cable insulation must not exceed the recommended dimension.

Insert the wire completely into the contact chamber until the copper strands reach the bottom. Keep the cable in position while applying the recommended tightening torque.

#### Maintenance of the axial screw termination:

In order to avoid damage to individual cable strands you must re-apply the tightening torque only once after the initial assembly of the application.

Wire gauge (mm <sup>2</sup> )	Stranded wires DIN EN 60228 class 2	Fine stranded wires DIN EN 60228 class 5	Super fine stranded wires DIN EN 60228 class 6			
			28 x 0.15	64 x 0.10	131 x 0.07	256 x 0.05
0.5	7 x 0.30	16 x 0.20	28 x 0.15	64 x 0.10	131 x 0.07	256 x 0.05
0.75	7 x 0.37	24 x 0.20	42 x 0.15	96 x 0.10	195 x 0.07	384 x 0.05
1	7 x 0.43	32 x 0.20	56 x 0.15	128 x 0.10	260 x 0.07	512 x 0.05
1.5	7 x 0.52	30 x 0.25	84 x 0.15	192 x 0.10	392 x 0.07	768 x 0.05
2.5	7 x 0.67	50 x 0.25	140 x 0.15	320 x 0.10	651 x 0.07	1280 x 0.05
4	7 x 0.85	56 x 0.30	224 x 0.15	512 x 0.10	1040 x 0.07	
6	7 x 1.05	84 x 0.30	192 x 0.20	768 x 0.10	1560 x 0.07	
10	7 x 1.35	80 x 0.40	320 x 0.20	1280 x 0.10	2600 x 0.07	
16	7 x 1.70	128 x 0.40	512 x 0.20	2048 x 0.10		
25	7 x 2.13	200 x 0.40	800 x 0.20	3200 x 0.10		
35	7 x 2.52	280 x 0.40	1120 x 0.20			
50	19 x 1.83	400 x 0.40	705 x 0.30			
70	19 x 2.17	356 x 0.50	990 x 0.30			
95	19 x 2.52	485 x 0.50	1340 x 0.30			
120	37 x 2.03	614 x 0.50	1690 x 0.30			
150	37 x 2.27	765 x 0.50	2123 x 0.30			
185	37 x 2.52	944 x 0.50	1470 x 0.40			
240	61 x 2.24	1225 x 0.50	1905 x 0.40			

Wire assembly according to DIN EN 60 228

Info

Insert	Wire gauge	Stripping length		Tightening torque		Max. cable insulation diameter	Size hexagon recess	Insert dimension for cable indication (ISK)
	(mm <sup>2</sup> )	(mm)		(Nm)		(mm)	(SW)	(mm)
Han® K 4/4 finger safe	6 ... 16	6 mm <sup>2</sup> :	11+1	6 mm <sup>2</sup> :	2	8.9	2.5	7.4 PE: 8.9
		10 mm <sup>2</sup> :	11+1	10 mm <sup>2</sup> :	3			
16 mm <sup>2</sup> :		11+1	16 mm <sup>2</sup> :	4				
Han® K 4/4	10 ... 22	10 mm <sup>2</sup> :	11+1	10 mm <sup>2</sup> :	3	8.9	2.5	7.4 7.4 5.4 PE: 8.9
		16 mm <sup>2</sup> :	11+1	16 mm <sup>2</sup> :	4			
		22 mm <sup>2</sup> :	11+1	22 mm <sup>2</sup> :	4			
	6 ... 16	6 mm <sup>2</sup> :	11+1	6 mm <sup>2</sup> :	2	8.9	2.5	7.4 PE: 8.9
10 mm <sup>2</sup> :	11+1	10 mm <sup>2</sup> :	3					
16 mm <sup>2</sup> :	11+1	16 mm <sup>2</sup> :	4					
Han® K 6/12	2.5 ... 8	2.5 mm <sup>2</sup> :	5+1	2.5 mm <sup>2</sup> :	1.5	6.2	2	7.4
		4 mm <sup>2</sup> :	5+1	4 mm <sup>2</sup> :	1.5			
		6 mm <sup>2</sup> :	8+1	6 mm <sup>2</sup> :	2			
		8 mm <sup>2</sup> :	8+1	8 mm <sup>2</sup> :	2			
Han® K 6/6	6 ... 10	6 mm <sup>2</sup> :	8+1	6 mm <sup>2</sup> :	2	6.2	2	4.7
		8 mm <sup>2</sup> :	8+1	8 mm <sup>2</sup> :	2			
		10 mm <sup>2</sup> :	8+1	10 mm <sup>2</sup> :	2			
Han® K 8/0	10 ... 25	10 mm <sup>2</sup> :	13+/-1	10 mm <sup>2</sup> :	6	11.4	4	4.9
		16 mm <sup>2</sup> :	13+/-1	16 mm <sup>2</sup> :	6			
		25 mm <sup>2</sup> :	13+/-1	25 mm <sup>2</sup> :	7			
		16 ... 35	16 mm <sup>2</sup> :	13+/-1	16 mm <sup>2</sup> :			
25 mm <sup>2</sup> :	13+/-1	25 mm <sup>2</sup> :	7					
35 mm <sup>2</sup> :	13+/-1	35 mm <sup>2</sup> :	8					
Han® K 8/0	10 ... 25	10 mm <sup>2</sup> :	13+/-1	10 mm <sup>2</sup> :	6	11.4	4	4.75
		16 mm <sup>2</sup> :	13+/-1	16 mm <sup>2</sup> :	6			
		25 mm <sup>2</sup> :	13+/-1	25 mm <sup>2</sup> :	7			
Han® Q 2/0 Han® Q 2/0 High Voltage	2.5 ... 10	2.5 mm <sup>2</sup> :	8+1	2.5 mm <sup>2</sup> :	1.8	7.3	2	5.6
		4 mm <sup>2</sup> :	8+1	4 mm <sup>2</sup> :	1.8			
		6 mm <sup>2</sup> :	8+1	6 mm <sup>2</sup> :	1.8			
		10 mm <sup>2</sup> :	8+1	10 mm <sup>2</sup> :	1.8			
Han® Q 4/2 Han® Q 4/2 with Han-Quick Lock®	4 ... 10	4 mm <sup>2</sup> :	8+1	4 mm <sup>2</sup> :	1.8	7.3	2	5.6
		6 mm <sup>2</sup> :	8+1	6 mm <sup>2</sup> :	1.8			
		10 mm <sup>2</sup> :	8+1	10 mm <sup>2</sup> :	1.8			
Han® 200 A module without PE Han® 200 A module with PE	25 ... 40	25 mm <sup>2</sup> :	16	25 mm <sup>2</sup> :	8	12	5	0
		40 mm <sup>2</sup> :	16	40 mm <sup>2</sup> :	8			
	40 ... 70	40 mm <sup>2</sup> :	16	40 mm <sup>2</sup> :	9	12	5	0
70 mm <sup>2</sup> :	16	70 mm <sup>2</sup> :	10					
Han® 100 A module	6 ... 10	6 mm <sup>2</sup> :	13+/-1	6 mm <sup>2</sup> :	4	11.4	2.5	4.9
		8 mm <sup>2</sup> :	13+/-1	8 mm <sup>2</sup> :	4			
		10 mm <sup>2</sup> :	13+/-1	10 mm <sup>2</sup> :	4			
	10 ... 25	10 mm <sup>2</sup> :	13+/-1	10 mm <sup>2</sup> :	6	11.4	4	4.9
		16 mm <sup>2</sup> :	13+/-1	16 mm <sup>2</sup> :	6			
		25 mm <sup>2</sup> :	13+/-1	25 mm <sup>2</sup> :	7			
	16 ... 35	16 mm <sup>2</sup> :	13+/-1	16 mm <sup>2</sup> :	6	11.4	4	4.9
		25 mm <sup>2</sup> :	13+/-1	25 mm <sup>2</sup> :	7			
35 mm <sup>2</sup> :		13+/-1	35 mm <sup>2</sup> :	8				
38	38 mm <sup>2</sup> :	13+/-1	38 mm <sup>2</sup> :	8	11.4	4	4.9	
Han® 70 A module	6 ... 16	6 mm <sup>2</sup> :	11+1	6 mm <sup>2</sup> :	2	8.9	2.5	7.4
		10 mm <sup>2</sup> :	11+1	10 mm <sup>2</sup> :	3			
		16 mm <sup>2</sup> :	11+1	16 mm <sup>2</sup> :	4			
	14 ... 22	14 mm <sup>2</sup> :	12.5+1	14 mm <sup>2</sup> :	4	10	2.5	5.9
16 mm <sup>2</sup> :	12.5+1	16 mm <sup>2</sup> :	4					
22 mm <sup>2</sup> :	12.5+1	22 mm <sup>2</sup> :	4					
Han® 40 A module	2.5 ... 8	2.5 mm <sup>2</sup> :	5+1	2.5 mm <sup>2</sup> :	1.5	4	2	4.7
		4 mm <sup>2</sup> :	5+1	4 mm <sup>2</sup> :	1.5			
		6 mm <sup>2</sup> :	8+1	6 mm <sup>2</sup> :	2			
		8 mm <sup>2</sup> :	11+1	10 mm <sup>2</sup> :	2			
	6 ... 10	6 mm <sup>2</sup> :	8+1	6 mm <sup>2</sup> :	2	6	2	4.7
		10 mm <sup>2</sup> :	11+1	10 mm <sup>2</sup> :	2			

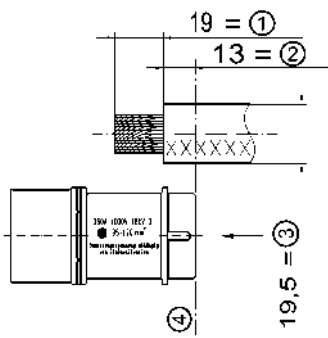
Insert	Wire gauge	Stripping length		Tightening torque		Max. cable insulation diameter	Size hexagon recess	Insert dimension for cable indication (ISK)
	(mm <sup>2</sup> )	(mm)		(Nm)		(mm)	(SW)	(mm)
Han® C module with axial screw terminal	2.5 ... 8	2.5 mm <sup>2</sup> :	5+1	2.5 mm <sup>2</sup> :	1.5	4	2	5.2
		4 mm <sup>2</sup> :	5+1	4 mm <sup>2</sup> :	1.5	4		
6 mm <sup>2</sup> :		8+1	6 mm <sup>2</sup> :	2	6			
8 mm <sup>2</sup> :		8+1	8 mm <sup>2</sup> :	2	8.2			
	6 ... 10	6 mm <sup>2</sup> :	8+1	6 mm <sup>2</sup> :	2	6	2	5.2
		10 mm <sup>2</sup> :	11+1	10 mm <sup>2</sup> :	2	8.2		
Han® K3/0 straight	25 ... 40	25 mm <sup>2</sup> :	22	25 mm <sup>2</sup> :	8	15	5	8.2
		40 mm <sup>2</sup> :	22	40 mm <sup>2</sup> :	8			
	35 ... 70	35 mm <sup>2</sup> :	22	35 mm <sup>2</sup> :	8	15	5	8.2
		50 mm <sup>2</sup> :	22	50 mm <sup>2</sup> :	9			
		70 mm <sup>2</sup> :	22	70 mm <sup>2</sup> :	10			
Han® K3/0 angled	25 ... 40	25 mm <sup>2</sup> :	22	25 mm <sup>2</sup> :	8	15	5	9
		40 mm <sup>2</sup> :	22	40 mm <sup>2</sup> :	8			
	35 ... 70	35 mm <sup>2</sup> :	22	35 mm <sup>2</sup> :	8	15	5	9
		50 mm <sup>2</sup> :	22	50 mm <sup>2</sup> :	9			
		70 mm <sup>2</sup> :	22	70 mm <sup>2</sup> :	10			
Han® K3/2 straight	35 ... 70	35 mm <sup>2</sup> :	22	35 mm <sup>2</sup> :	8	power: 15	5	power: 8.2
		50 mm <sup>2</sup> :	22	50 mm <sup>2</sup> :	9			
	PE: 25 ... 40	70 mm <sup>2</sup> :	22	70 mm <sup>2</sup> :	10	PE: 10		PE: 7.2
		PE:	14					
Han® K3/2 angled	25 ... 40	25 mm <sup>2</sup> :	22	25 mm <sup>2</sup> :	8	power: 15	5	power: 9.0
		40 mm <sup>2</sup> :	22	40 mm <sup>2</sup> :	8			
	35 ... 70	35 mm <sup>2</sup> :	22	35 mm <sup>2</sup> :	8	power: 15	5	power: 9.0
		50 mm <sup>2</sup> :	22	50 mm <sup>2</sup> :	9			
		70 mm <sup>2</sup> :	22	70 mm <sup>2</sup> :	10			PE: 7.2
Han® HC Modular 350	20 ... 35	20 mm <sup>2</sup> :	19+1	20 mm <sup>2</sup> :	8	19.5	5	13
		35 mm <sup>2</sup> :	19+1	35 mm <sup>2</sup> :	8			
	35 ... 70	35 mm <sup>2</sup> :	19+1	35 mm <sup>2</sup> :	8	19.5	5	13
		50 mm <sup>2</sup> :	19+1	50 mm <sup>2</sup> :	10			
		70 mm <sup>2</sup> :	19+1	70 mm <sup>2</sup> :	12			
	95 ... 120	95 mm <sup>2</sup> :	19+1	95 mm <sup>2</sup> :	14	19.5	5	13
120 mm <sup>2</sup> :		19+1	120 mm <sup>2</sup> :	16				
Ground contact for Han® HC Modular	35 ... 70	35 mm <sup>2</sup> :	19+1	35 mm <sup>2</sup> :	8	-	5	-
		50 mm <sup>2</sup> :	19+1	50 mm <sup>2</sup> :	10			
		70 mm <sup>2</sup> :	19+1	70 mm <sup>2</sup> :	12			
Han® HC Modular 650	60 ... 70	60 mm <sup>2</sup> :	23+2	60 mm <sup>2</sup> :	12	27	8	28
		70 mm <sup>2</sup> :	23+2	70 mm <sup>2</sup> :	12			
	70 ... 120	70 mm <sup>2</sup> :	23+2	70 mm <sup>2</sup> :	12	26.5	8	28
		95 mm <sup>2</sup> :	23+2	95 mm <sup>2</sup> :	14			
		120 mm <sup>2</sup> :	23+2	120 mm <sup>2</sup> :	16			
	150 ... 185	150 mm <sup>2</sup> :	23+2	150 mm <sup>2</sup> :	17	26.5	8	28
185 mm <sup>2</sup> :		23+2	185 mm <sup>2</sup> :	18				

Overview inserts with axial screw terminal

### Insulating base dimension for the cable marking (ISK)

Marking the proper cable position for the axial screw connection contact point:

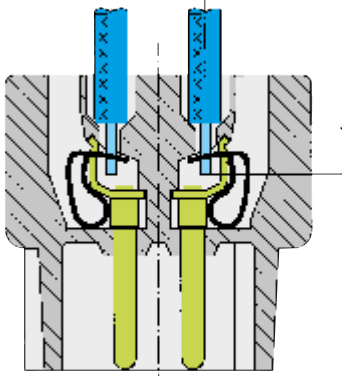
By marking the cable sheathing you can specify the proper point for tightening the axial screw on the connecting cable. If the cable is pushed into the insulating base up to the marker (where the marker is flush with the upper edge of the insulating base), then the cable is in the correct position for being connected. The following figure (on the next page) illustrates this process when using the Han® HC Modular 350 contact. The marker and the upper edge of the insulating base are at the same level (as indicated by the dashed line).



- ① stripping length
- ② insulator dimension (ISK dimension)
- ③ max. cable insulation diameter
- ④ sink line



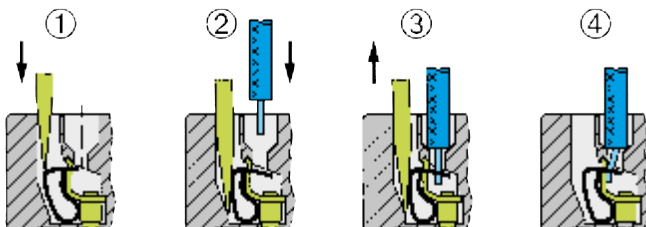
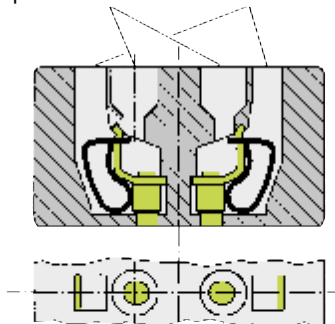
## Cage-clamp terminal



This termination method requires very little preparation of the wire and no special tools, leading to a low installed cost and a high degree of mechanical security.

- For all stranded and solid wires with a cross section 0.14 to 2.5 mm<sup>2</sup>.
- Ease of termination. Conductor and screwdriver are in same plane.
- No special preparation of stripped conductor.
- The larger the conductor the higher the clamping force.
- The termination is vibration-proof.
- Guaranteed constant low resistance connection of the cage-clamp terminal.
- The cage-clamp system is internationally approved. VDE, CSA, UL, ÖVE, SEMKO, LCIE (France), Germanischer Lloyd, DET Norske Veritas

One conductor per termination Slot for screwdriver



Screwdriver width: 0.6 x 3.5 mm

Kontakteinsätze	max. Leiterquerschnitt		Abisolierlänge l (mm)
	(mm <sup>2</sup> )	AWG	
Han <sup>®</sup> ES, Han <sup>®</sup> Hv ES	0.14 ... 2.5	26 ... 14	7 ... 9
Han <sup>®</sup> ESS	0.14 ... 2.5	26 ... 14	9 ... 11
Han <sup>®</sup> ES Press	0.14 ... 2.5	26 ... 14	9 ... 11
Han <sup>®</sup> K 4/4	0.14 ... 2.5	26 ... 14	7 ... 9
Han <sup>®</sup> ES Modul	0.14 ... 2.5	26 ... 14	7 ... 9

## Han<sup>®</sup> ES Press

The circular openings in the insert are used to hold the wire that is being connected. Note that there are two rows of rectangular holes (intended for plug-in jumpers) located between the contact openings of the Han<sup>®</sup> ES Press insert.

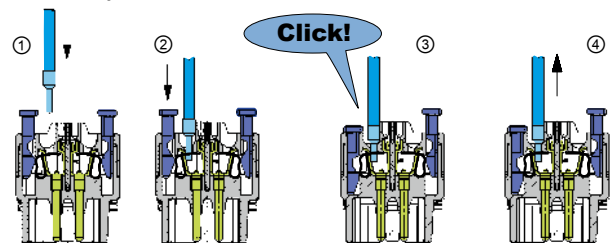
**Note: Only one wire per termination point!**

Each termination point is, in principle, only suited to hold a single wire. When required, two or more wires may be contacted per termination point; contact HARTING Technical Support first for more information.

### Note!

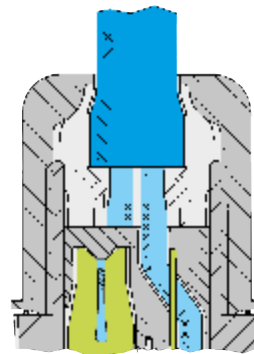
An effective and durable spring clamp connection requires that the wire is properly stripped. The correct stripping lengths for the Han<sup>®</sup> ES Press contacts are specified in the table below, left side.

### Assembly



④ = Gentle test pull!

## IDC (Insulation displacement terminal)



Inserts	max. wire gauge	
	(mm <sup>2</sup> )	AWG
M8-S/M12-S	0.14 ... 0.34	26 ... 22
Circular connectors M12 angled	0.25 ... 0.50	24 (7/32) ... 22
Circular connectors M12-L	0.34 ... 0.75	22 ... 18
M12-L PROFIBUS	0.25 ... 0.34	24 ... 22
M12-L Ethernet	0.25 ... 0.34	24 ... 22
	0.34 ... 0.5	22 ... 18
Panel feed through Pg 13.5 /M20	0.75 ... 1.50	18 ... 16
Panel feed through Pg 9	0.25 ... 0.50	24 (7/32) ... 22
HARAX <sup>®</sup> 3 A	0.75 ... 1.5	18 ... 16

## General

The choice of connectors entails more than just considering factors such as functionality, the number of contacts, current and voltage ratings. It is equally important to take account of where the connectors are to be used and the prevailing ambient conditions. This in turn means that, dependent on the conditions under which they are to be installed and pursuant to the relevant standards, different voltage and current ratings may apply for the same connectors.

The most important influencing factors and the corresponding electrical characteristics of the associated connectors are illustrated here in greater detail.

## Overvoltage category

The overvoltage category is dependent on the mains voltage and the location at which the equipment is installed. It describes the maximum overvoltage resistance of a device in the event of a power supply system fault, e. g. in the event of a lightning strike.

The overvoltage category affects the dimensioning of components in that it determines the clearance air gap. Pursuant to the relevant standards, there are 4 overvoltage categories.

Equipment for industrial use, such as fall HARTING heavy duty Han connector, fall into Overvoltage Category III.

## Extract from DIN VDE 0110-1 and IEC 60 664-1, Para. 2.2.2.1.1

Equipment of overvoltage category IV is for use at the origin of the installation.

**Note 1:** Examples of such equipment are electricity meters and primary overcurrent protection equipment.

Equipment of overvoltage category III is equipment in fixed installations and for cases where the reliability and the availability of the equipment is subject to special requirements.

**Note 2:** Examples of such equipment are switches in the fixed installation and equipment for industrial use with permanent connection to the fixed installation.

Equipment of overvoltage category II is energy-consuming equipment to be supplied from the fixed installation.

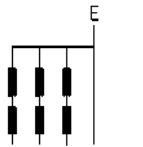
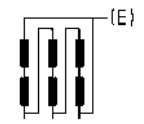


**Note 3:** Examples of such equipment are appliances, portable tools and other household equipment with similar loads.

If such equipment is subjected to special requirements with regard to reliability and availability, overvoltage category III applies.

Equipment of overvoltage category I is equipment for connection to circuits in which measures are taken to limit transient overvoltages to an appropriately low level.

**Note:** Examples are protected electronic circuits.

## Rated impulse voltages (Table B2 of DIN EN 60 664-1)

Voltage line-to-neutral derived from nominal voltages A.C. or D.C. up to and including	Nominal voltages presently used in the world (= Rated insulation voltage of equipment)				Rated impulse voltage for equipment			
	Three-phase 4-wire systems with earthed neutral	Three-phase 3-wire systems earthed or un-earthed	Single-phase 2-wire systems A.C. or D.C.	Single-phase 3-wire systems A.C. or D.C.	Overvoltage category			
					I Special protected levels	II Level for electrical equipment (household and others)	III Level for distribution supply systems	IV Input level
V	V	V	V	V	V	V	V	V
50			12.5 24 25 30 42 48	30 ... 60	330	500	800	1500
100	66/115	66	60		500	800	1500	2500
150	120/208* 127/220	115, 120 127	100** 110, 220	100 ... 200** 110 ... 220 120 .. 240	800	1500	2500	4000
300	220/380, 230/400 240/415, 260/440 277/480	200**, 220 230, 240 260, 277	220	220 ... 440	1500	2500	4000	6000
600	347/600, 380/660 400/690, 417/720 480/830	347, 380, 400 415, 440, 480 500, 577, 600	480	480 ... 960	2500	4000	6000	8000
1000		660 690, 720 830, 1000	1000		4000	6000	8000	12 000

\* ... Practice in the U.S.A and in Canada

\*\* ... Practice in Japan

## Pollution degree

The dimensioning of operating equipment is dependent on environmental conditions. Any pollution or contamination may give rise to conductivity that, in combination with moisture, may affect the insulating properties of the surface on which it is deposited. The pollution degree influences the design of components in terms of the creepage distance.

The pollution degree is defined for exposed, unprotected insulation on the basis of environmental conditions.

HARTING heavy duty Han connectors are designed as standard for Pollution Degree 3.

**Pollution degree 1**  
in air-conditioned or clean, dry rooms, such as computer and measuring instrument rooms, for example.

**Pollution degree 2**  
in residential, sales and other business premises, precision engineering workshops, laboratories, testing bays, rooms used for medical purposes. As a result of occasional moisture condensation, it is to be anticipated that pollution/contamination may be temporarily conductive.

**Pollution degree 3**  
in industrial, commercial and agricultural premises, unheated storage premises, workshops or boiler rooms, also for the electrical components of assembly or mounting equipment and machine tools.

**Pollution degree 4**  
in outdoor or exterior areas such as equipment mounted on the roofs of locomotives or tramcars.

### Extract from DIN EN 60 664-1 (VDE 0110-1), Para. 4.6.2

**Pollution degree 1:** No pollution or only dry, non-conductive pollution occurs. The pollution has no influence.

**Pollution degree 2:** Only non-conductive pollution occurs except that occasionally a temporary conductivity caused by condensation is to be excepted.

**Pollution degree 3:** Conductive pollution occurs or dry non-conductive pollution occurs which becomes conductive due to condensation which is to be expected.

**Pollution degree 4:** Continuous conductivity occurs due to conductive dust, rain or other wet conditions.

## Special ruling for connectors

Subject to compliance with certain preconditions, the standard for connectors permits a lower pollution degree than that which applies to the installation as a whole. This means that in a pollution degree 3 environment, connectors may be used which are electrically rated for pollution degree 2.

The basis for this is contained in DIN EN 61 984, Para. 6.19.2.3.

### Extract form DIN EN 61 984, Para. 6.19.2.3

For a connector with a degree of protection IP 54 or higher according to IEC 60 529 the insulating parts inside the enclosure may be dimensioned for a lower pollution degree.

This also applies to mated connectors where enclosure is ensured by the connector housing and which may only be disengaged for test and maintenance purposes.

## The conditions fulfills,

- a connector which is protected to at least IP 54 as per IEC 60 529,
- a connector which is installed in a housing and which as described in the standard is disconnected for testing and maintenance purposes only,
- a connector which is installed in a housing and which when disconnected is protected by a cap or cover to at least IP 54,
- a connector located inside a switching cabinet to at least IP 54.

These conditions do not extend to connectors which when disconnected remain exposed to the industrial atmosphere for an indefinite period.

It should be noted that pollution can affect a connector from the inside of an installation outwards.

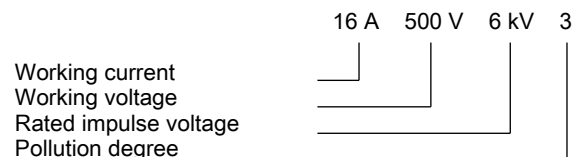
## Typical applications in which to choose pollution degree 2 connectors:

- A connector serving a drive motor which is disconnected only for the purpose of replacing a defective motor, even when the plant or system otherwise calls for pollution degree 3.
- Connectors serving a machine of modular design which are disconnected for transport purposes only and enable rapid erection and reliable commissioning. In transit, protective covers or adequate packing must be provided to ensure that the connectors are not affected by pollution/contamination.
- Connectors located inside a switching cabinet to IP 54. In such cases, it is even possible to dispense with the IP 54 housings of the connectors themselves.

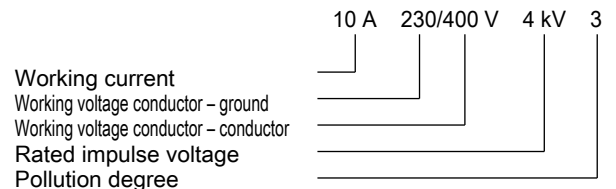
## Specifying electrical data

Electrical data for connectors are specified as per DIN EN 61 984.

This example identifies a connector suitable for use in an unearthed power system or earthed delta circuit (see page 00.22, Table B2 of DIN EN 60 664-1):



This example identifies a connector suitable exclusively for use in earthed power systems (see page 00.22, Table B2 of DIN EN 60 664-1):



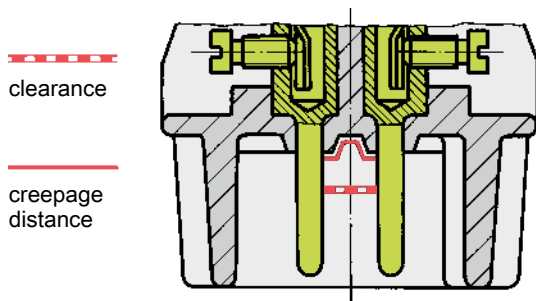
## Other terms explained

### Clearance air gap

The shortest distance through the air between two conductive elements (see DIN EN 60664-1 (VDE 0110-1), Para. 3.2). The air gaps are determined by the surge voltage withstand level.

### Creepage distance

Shortest distance on the surface of an solid insulating material between two conductive elements (see DIN EN 60664-1 (VDE 0110-1), Para. 3.3). The creepage distances are dependent on the rated voltage, the pollution degree and the characteristics of the insulating material.

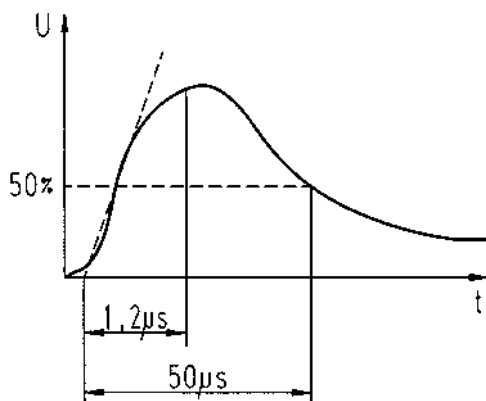


### Working voltage

Fixed voltage value on which operating and performance data are based. More than one value for rated voltage or rated voltage range may be specified for the same connector.

### Rated impulse voltage

The rated impulse voltage is determined on the basis of the overvoltage category and the nominal power supply voltage. This level in turn directly determines the test voltage for testing the overvoltage resistance of the connector (Waveform voltage in 1.2/50  $\mu$ s as per IEC 60060-1).



### Working current

Fixed current, preferably at an ambient temperature of 40 °C, which the connector can carry on a permanent basis (without interruption), passing simultaneously through all contacts which are in turn connected to the largest possible conductors, without exceeding the upper temperature limit.

The dependence of the rated current on ambient temperature is illustrated in the respective derating diagrams.

### Transient overvoltages

Short-term overvoltage lasting a few milliseconds or less, oscillatory or non-oscillatory, generally heavily damped (see DIN EN 60664-1 (VDE 0110-1, Para. 3.7.2). An overvoltage may occur as a result of switching activities, a defect or lightning surge, or may be intentionally created as a necessary function of the equipment or component.

### Power-frequency withstand voltage

A power-frequency overvoltage (50/60 Hz).

Applied for a duration of one minute when testing dielectric strength. For test voltages in association with surge voltage withstand levels, see extract from Table 8, DIN EN 61984.

Test voltages (Extract from Table 8, DIN EN 61984)

Impulse withstand voltage kV (1.2/50 $\mu$ s) at an altitude of 2 000 m	RMS withstand voltage kV (50/60 Hz)
0.5	0.37
0.8	0.50
1.5	0.84
2.5	1.39
4	2.21
6	3.31
8	4.26
12	6.6

### CTI (Comparative Tracking Index)

This figure gives an indication of the conductivity of insulating materials and affects the specified creepage distances. The influence of the CTI value on the creepage distance is as follows: the higher the index value, the shorter the creepage distance. The CTI is used to divide plastics into insulation groups.

Breakdown of insulation groups:

- I 600  $\leq$  CTI
- II 400  $\leq$  CTI < 600
- IIIa 175  $\leq$  CTI < 400
- IIIb 100  $\leq$  CTI < 175

### Protection levels as per IEC 60529

The protection level describes the leak-proof character of housing, e. g. for electrical equipment. It ranges from IP 00 to IP 68. HARTING heavy duty Han connectors feature a standard protection level of IP 65 (see page 00.5, table based on DIN EN 60529, IEC 60529).

### Derating diagram as per DIN EN 60512-5-2

These diagrams are used to illustrate the maximum current carrying capacity of components. The illustration follows a curve which shows the current in relation to ambient temperature. Current carrying capacity is limited by the thermal characteristics of contacts and insulating elements which have an upper temperature limit which should not be exceeded.

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## Current carrying capacity

The current carrying capacity is determined in tests which are conducted on the basis of the DIN EN 60512-5-2. The current carrying capacity is limited by the thermal properties of materials which are used for inserts as well as by the insulating materials. These components have a limiting temperature which should not be exceeded.

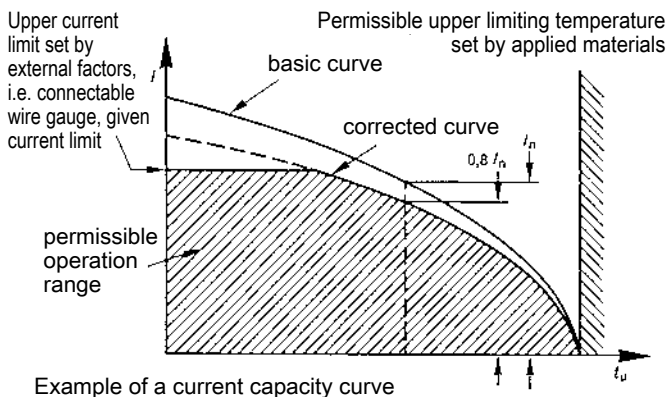
The relationship between the current, the temperature rise (loss at the contact resistance) and the ambient temperature of the connector is represented by a curve. On a linear coordinate system the current lies on the vertical line (ordinate) and the ambient temperature on the horizontal line (abscissa) which ends at the upper limiting temperature.

In another measurement the self-heating ( $\Delta t$ ) at different currents is determined.

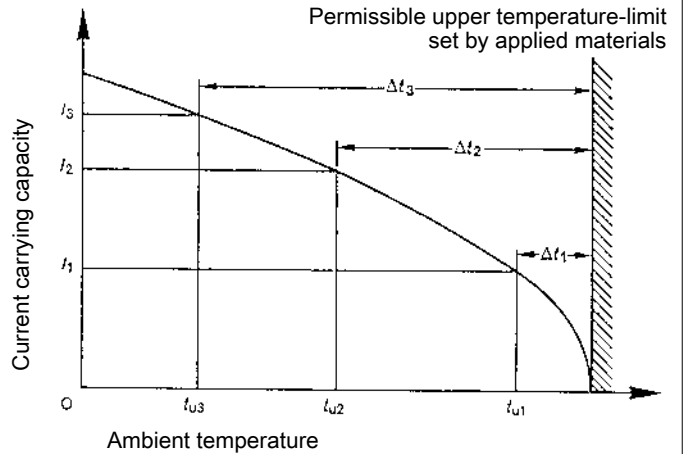
At least 3 points are determined which are connected to a parabolic curve, the basic curve.

The corrected current carrying capacity curve is derived from this basic curve. The reasons for the correction are external factors that bring an additional limitation to the current carrying capacity, i.e. connectable wire gauge or an unequal dispersion of current.

The derating diagrams pictured as curve have been primarily determined with tin-plated cables as well as with physical cross sections close to the respective ISO-cable cross section.



Definition: The rated current is the continuous, not interrupted current a connector can take when simultaneous power on all contacts is given, without exceeding the maximum temperature.



Acc. to DIN EN 61984 the sum of ambient temperature and the temperature rise of a connector shall not exceed the upper limiting temperature. The limiting temperature is valid for a complete connector, that means insert plus housing.

As a result the insert gives the limit for the temperature of a complete connector and thus housings as well.

In practice it is not usual to load all terminals simultaneously with the maximum current. In such a case single contacts can be loaded with a higher current as permitted by the current capacity curve, if less than 20 % of the whole is loaded.

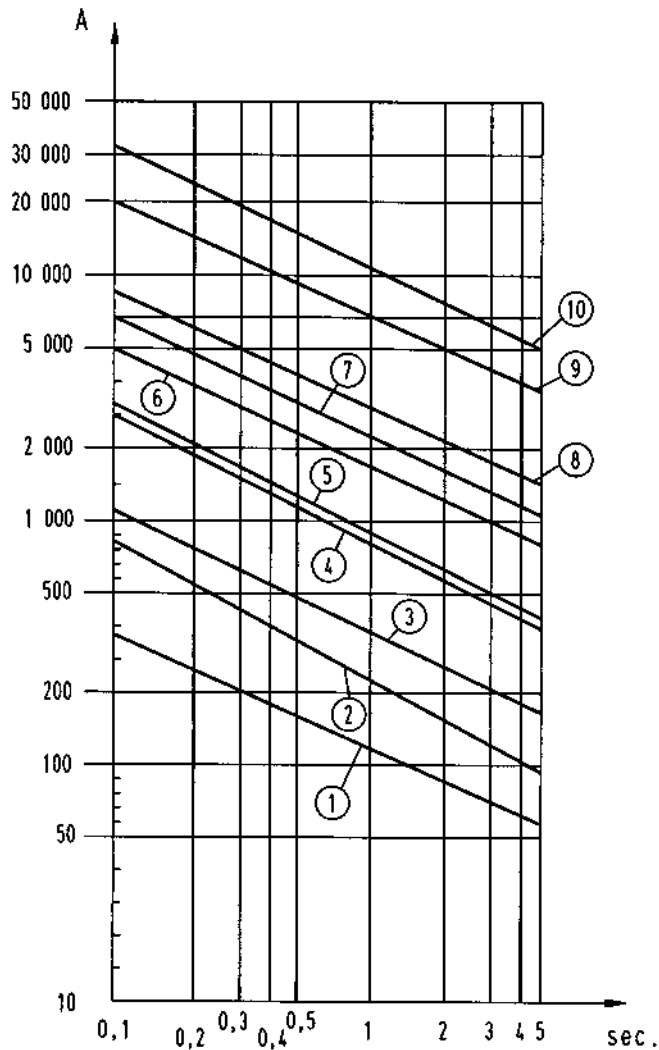
However, for these cases there are no universal rules. The limits have to be determined individually from case to case. It is recommended to proceed in accordance with the relevant rules of the DIN EN 60512-5-2.

## Current carrying capacity of copper wires

Diameter [mm <sup>2</sup> ] of single wires in a three-phase system	0.75	1	1.5	2.5	4	6	10	16	25	35
Type of installation										
B1 Conductors/single core cables in conduit and cable trunking systems	8.6	10.3	13.5	18.3	24	31	44	59	77	96
B2 Cables in conduit and cable trunking systems	8.5	10.1	13.1	17.4	23	30	40	54	70	86
C Cables on walls	9.8	11.7	15.2	21	28	36	50	66	84	104
E Cables on open cable trays	10.4	12.4	16.1	22	30	37	52	70	88	110
Depiction in accordance with DIN EN 60204-1 for PVC-insulated copper wires in an ambient temperature of + 40 °C under permanent operating conditions.										
For different conditions and temperatures, installations, insulation materials or conductors the relevant corrections have to be carried out.										

## Short-time current carrying capacity

A short-time overload in circuits can be generated by switching operations such as the starting of a motor or a short circuit in a faulty installation. This can cause thermal stress at the contact. These short and very high increases cannot be dissipated quickly and therefore a local heating effect at the contact is the result. Contact design is an important feature when transient currents are encountered. HARTING contacts are machined from solid material and are therefore relatively unaffected by short overloads when compared to stamped and formed designs. For guidance please see the table below.

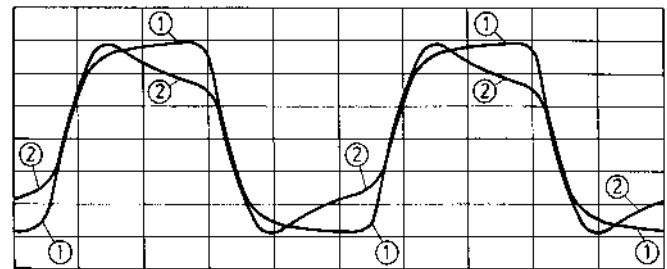


① Han D®	$I_N = 10 \text{ A}$
② Han® 3 A / 4 A	$I_N = 10 \text{ A}$
③ Han A®/ Han E®, Han® ES, EE, Q 5/0	$I_N = 16 \text{ A}$
④ Han® 6 HsB	$I_N = 35 \text{ A}$
⑤ Han® C/K axial	$I_N = 40 \text{ A}$
⑥ Han® K 4/8, Han® 70 A Modul	$I_N = 80 \text{ A}$
⑦ Han® K 6/6	$I_N = 100 \text{ A}$
⑧ Han® K 3/0	$I_N = 200 \text{ A}$
⑨ Han® HC-Modular 350	$I_N = 350 \text{ A}$
⑩ Han® HC-Modular 650	$I_N = 650 \text{ A}$

## Low currents and voltages

HARTING's standard contacts have a silver plated surface. This precious metal has excellent conductive properties. In the course of a contact's lifetime, the silver surface generates a black oxide layer due to its affinity to sulphur. This layer is smooth and very thin and is partly interrupted when the contacts are mated and unmated, thus guaranteeing very low contact resistances. In the case of very low currents or voltages small changes to the transmitted signal may be encountered. This is illustrated below where an artificially aged contact representing a twenty year life is compared with a new contact.

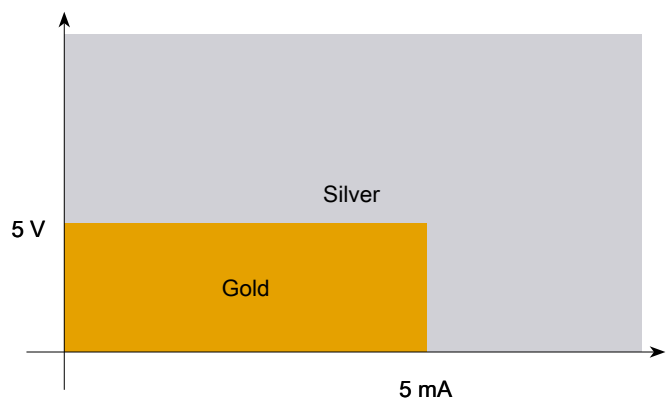
In systems where such a change to the transmitted signal could lead to faulty functions and also in extremely aggressive environments, HARTING recommend the use of gold plated contacts.



Changes to the transmitted signal after artificial ageing

- ① new contact
- ② after ageing

Below is a table derived from actual experiences.



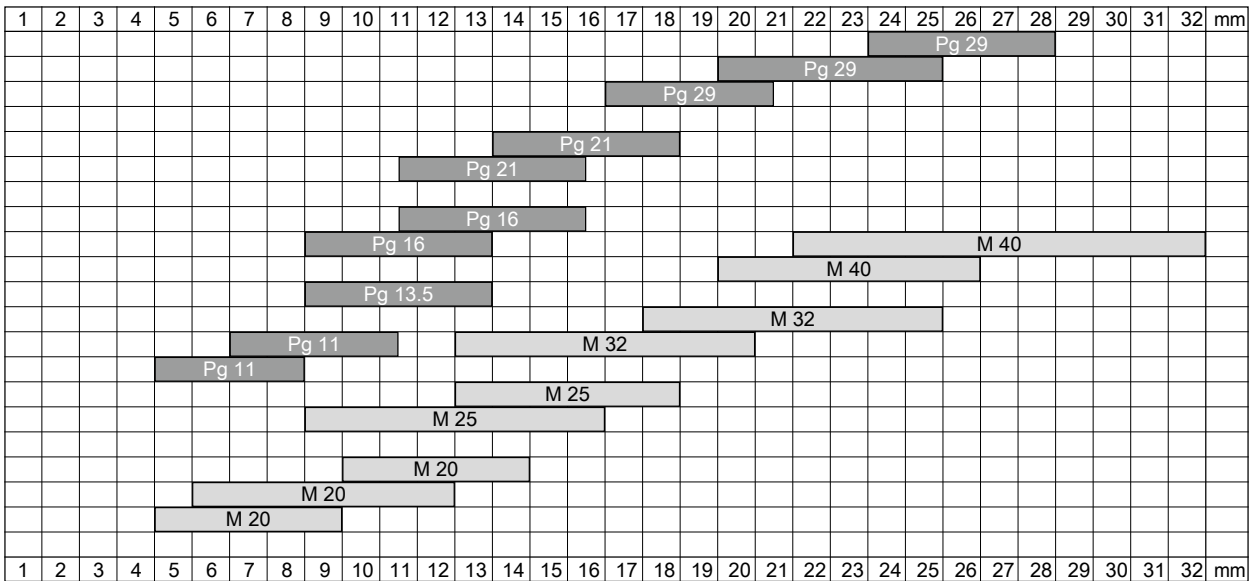
Recommendation

The metric thread is specified in the international DIN EN 50262 standard. The standard describes the metric series M 12 to M 63.

The thread dimension in mm is given by the product type description. E.g. M 20 refers to 20 mm thread diameter.

For easy identification, metric threaded hoods and housings are marked with an **(M)**.

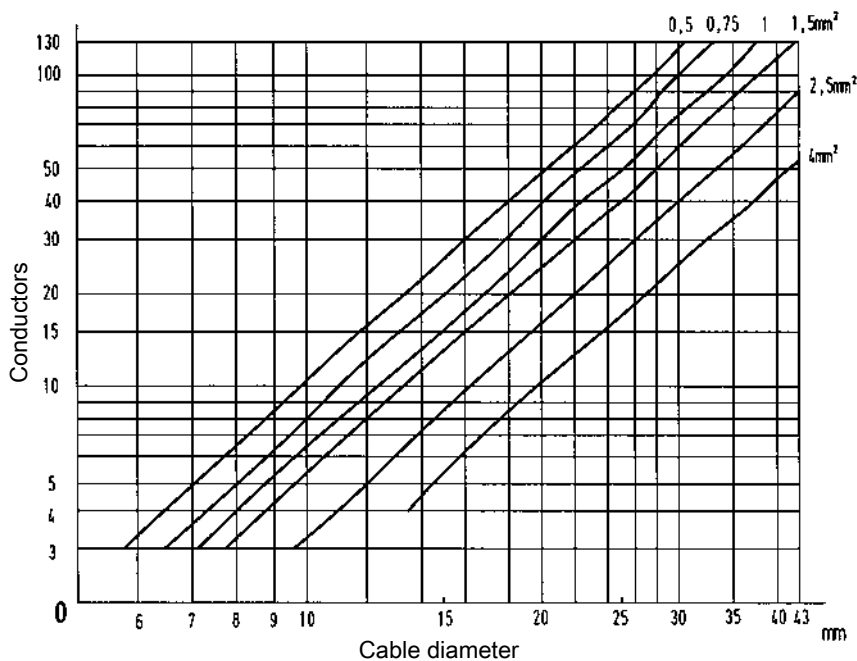
Cable range of metric glands:



## Cable

The diagram shows different cable-diameters, being dependent on wire gauges and number of conductors.

All data are averages for commercial cables.





**Supplier's Declaration of Conformity**  
**(in accordance with ISO/IEC 17050-1)**  
*Konformitätserklärung eines Anbieters*  
*(nach ISO/IEC 17050-1)*

**Issuer's name:** HARTING Electric GmbH & Co. KG  
*Name des Ausstellers*

**Issuer's address:** Wilhelm-Harting-Str. 1  
*Anschrift des Ausstellers* 32339 Espelkamp  
 Germany

**Product(s):**  
*Produkt(e):*

Han A®	Han E®	Han® HsB
Han® B	Han E® AV	Han® K 3/0
Han-Brid®	Han® EE	Han® K 3/2
Han-Com®	Han® EEE	Han® M
Han D®	Han® ES	Han-Modular®
Han D® AV	Han® ESS	Han-Power®
Han DD®	Han® HC Modular 350	Han® Q
Han-Eco®	Han® HPR	Han-Yellock®
		Han Staf®

**The product(s) as described above are in conformity with the requirements of:**  
*Die oben beschriebenen Produkte sind konform mit den folgenden Anforderungen:*

IEC 61984 (2008-10)

**Connectors - Safety requirements and tests**  
*Steckverbinder - Sicherheitsanforderungen und Prüfungen*

Espekamp,  
2016-05-18

Uwe Gräff  
 Managing Director

Espekamp,  
2016-05-18

i.v. Andre Beneke  
 Director Product & Industry  
 Segment Management

The given information reflects our current knowledge. It is based on statements and information of our suppliers and third parties. This declaration does not include guarantees of quality or durability. Topicality, completeness and accuracy of the content are subject to change without notice. The safety instructions are to be respected. The user is self-responsible for the evaluation of the information and the concrete measures derived from it. Besides that, HARTING is liable only for culpable, intentional or grossly negligent acting as long as no mandatory legal liability for damages of life, body, health or Product Liability Act exists.

*Die vorstehenden Informationen spiegeln unseren derzeitigen Kenntnisstand, dem insbesondere die Aussagen und Informationen unserer Lieferanten und Dritter zugrunde liegen, wider, beinhalten jedoch keine Beschaffenheits- oder Haltbarkeitsgarantien. Im Hinblick auf Aktualität, Vollständigkeit und Richtigkeit der Inhalte behalten wir uns Änderungen jederzeit vor. Die Sicherheitshinweise sind zu beachten, wobei der Anwender für die Bewertung der Informationen und die hieraus abgeleitete konkrete Verwendung selbst verantwortlich ist. Im Übrigen haftet HARTING nur für schuldhaftes vorsätzliches oder grob fahrlässiges Handeln, soweit nicht eine zwingende gesetzliche Haftung für Schäden an Leben, Körper oder Gesundheit oder nach dem Produkthaftungsgesetz besteht.*



Contents	Page
Han® 3 A.....	<b>Han 01.2</b>
Han® 3 A with <i>HARAX</i> ® connection technology .....	<b>Han 01.4</b>
Han® 4 A.....	<b>Han 01.6</b>
Han® 10 A / Han® 16 A / Han® 32 A.....	<b>Han 01.8</b>
Contacts .....	<b>Han 01.14</b>

## Features

- Innovative Han-Quick Lock® termination with reduced wiring times
- No special tools required
- Suitable for all metal and plastic hoods and housings of the series Han® 3 A
- for currents up to 10 A

## Technical characteristics

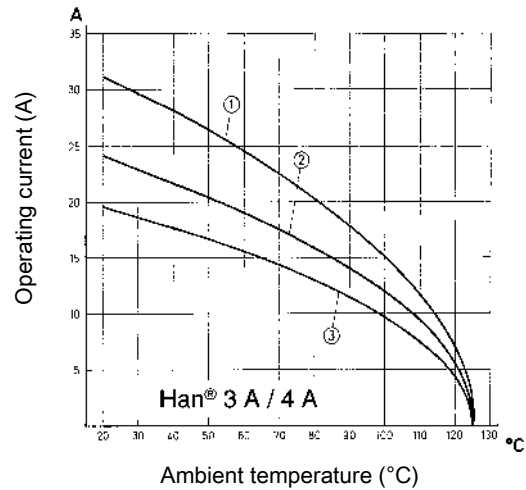
Number of contacts	3
Rated current	10 A
Rated voltage conductor-earth	230 V
Rated voltage conductor-conductor	400 V
Rated impulse voltage	4 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 2.5 mm<sup>2</sup>
- ② Conductor cross-section 1.5 mm<sup>2</sup>
- ③ Conductor cross-section 1 mm<sup>2</sup>

## Specifications and approvals


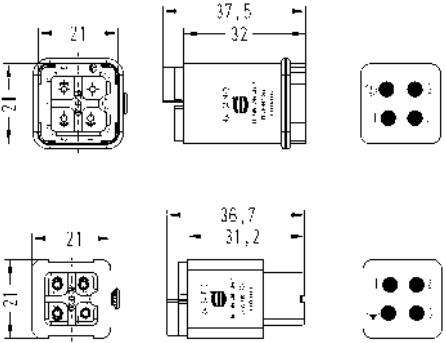

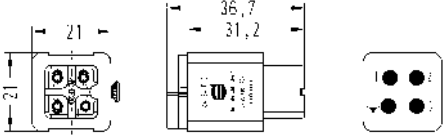

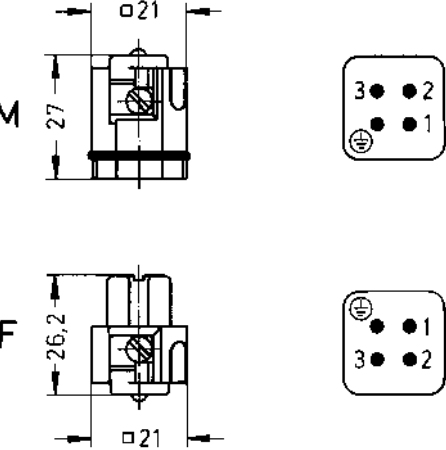
EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL

Number of contacts

# 3+

10 A 230/400 V 4 kV 3  
10 A 250 V 4 kV 3

Han A

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han A <sup>®</sup> , Han-Quick Lock <sup>®</sup> termination, Contact surface: Silver plated   Blue slide	0.5 ... 2.5	09 20 003 2633	09 20 003 2733	
Han A <sup>®</sup> , Han-Quick Lock <sup>®</sup> termination, Contact surface: Silver plated   Black slide	0.25 ... 1.5	09 20 003 2634	09 20 003 2734	
Han A <sup>®</sup> , Screw termination, Contact surface: Silver plated  	0.75 ... 1.5	09 20 003 2611	09 20 003 2711	 <p>                         Contact arrangement (view from termination side)                          Stripping length 4.5 mm                          Tightening torque 0.25 Nm                     </p>

## Technical characteristics

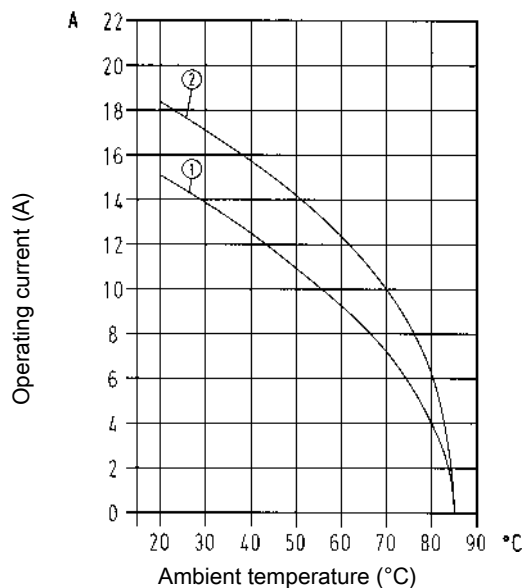
Number of contacts	3
Rated current	10 A
Rated voltage conductor-earth	230 V
Rated voltage conductor-conductor	400 V
Rated impulse voltage	4 kV
Pollution degree	3
Insulation resistance	>10 <sup>10</sup> Ω
Limiting temperature	-40 ... +85 °C
Mating cycles	≥500
Degree of protection acc. to IEC 60529	IP65, IP67
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 1 mm<sup>2</sup>
- ② Conductor cross-section 1.5 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
DNV GL

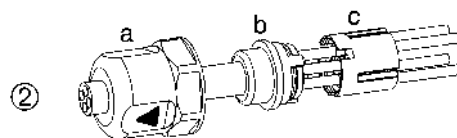


## Details

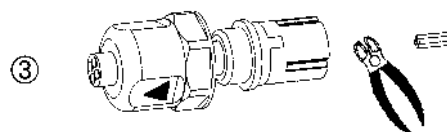
### Assembly instructions



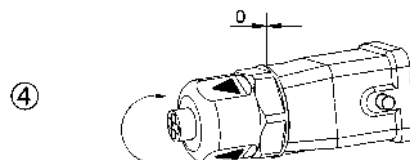
Strip off cable mantle



Assemble HARAX® elements  
Screw cap, splice ring, seal



Cut off cable ends




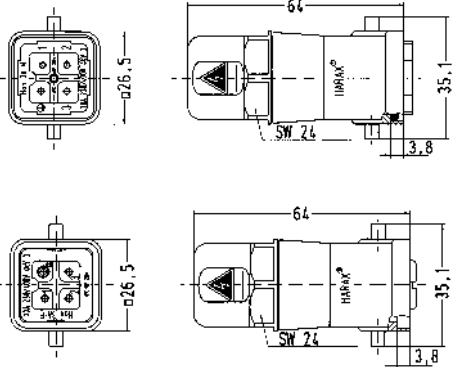

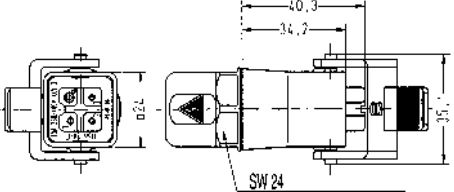
The nut must be screwed completely down until the notches engage on the contact carrier nutlatch

Number of contacts

**3+**

10 A 230/400 V 4 kV 3

Han A

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han A®, Hood, HARAX® connection technology, Top entry, IP65, IP67 Contact surface: Silver plated 	0.75 ... 1.5	09 20 003 0440	09 20 003 0445	
Han A®, Cable to cable housing, HARAX® connection technology, Top entry, IP65, IP67 Contact surface: Silver plated 	1 ... 1.5		09 20 003 0745	

## Features

- Innovative Han-Quick Lock® termination with reduced wiring times
- No special tools required
- Suitable for all metal and plastic hoods and housings of the series Han® 3 A
- for currents up to 10 A

## Technical characteristics

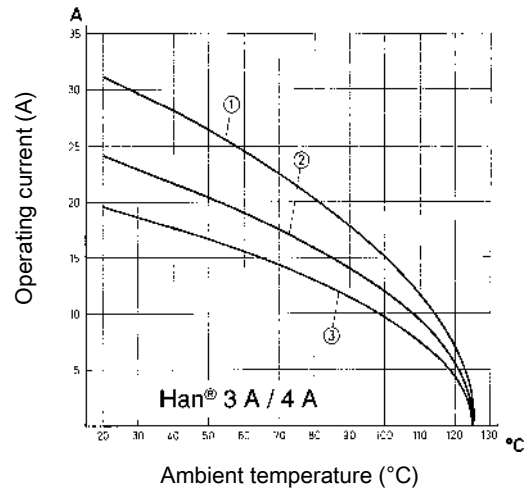
Number of contacts	4
Rated current	10 A
Rated voltage conductor-earth	230 V
Rated voltage conductor-conductor	400 V
Rated impulse voltage	4 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 2.5 mm<sup>2</sup>
- ② Conductor cross-section 1.5 mm<sup>2</sup>
- ③ Conductor cross-section 1 mm<sup>2</sup>


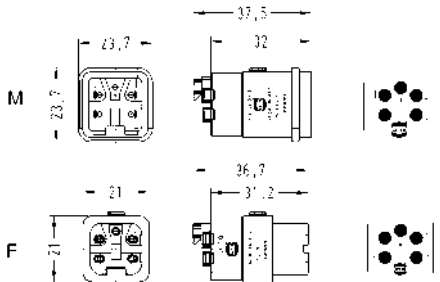


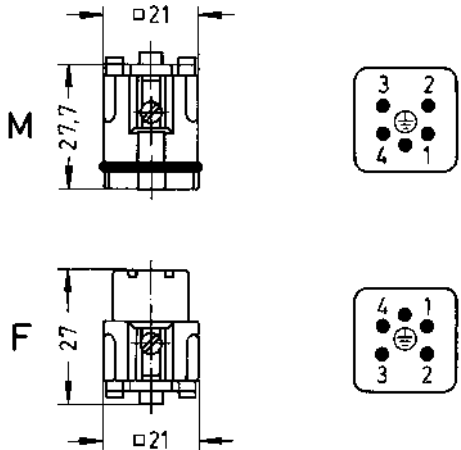
## Specifications and approvals

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL

Number of contacts

# 4+

10 A 230/400 V 4 kV 3  
10 A 250 V 4 kV 3

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han A®, Han-Quick Lock® termination, Contact surface: Silver plated    Blue slide	0.5 ... 2.5	09 20 004 2633	09 20 004 2733	  Contact arrangement (view from termination side)
Han A®, Han-Quick Lock® termination, Contact surface: Silver plated    Black slide	0.25 ... 1.5	09 20 004 2634	09 20 004 2734	
Han A®, Screw termination, Contact surface: Silver plated    Screw termination	0.75 ... 1.5	09 20 004 2611	09 20 004 2711	  Contact arrangement (view from termination side) Stripping length 4.5 mm Tightening torque 0.25 Nm

Han A

## Features

- Small size
- Available with crimp and screw termination
- Screw termination also available with wire protection

## Technical characteristics

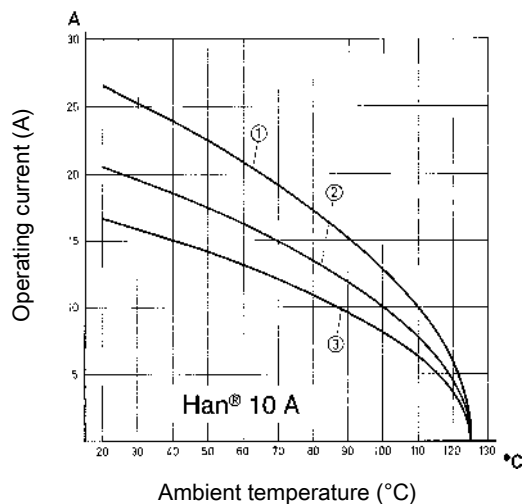
Number of contacts	10, 16, 32
Rated current	16 A
Rated voltage	250 V
Rated impulse voltage	4 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤1 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

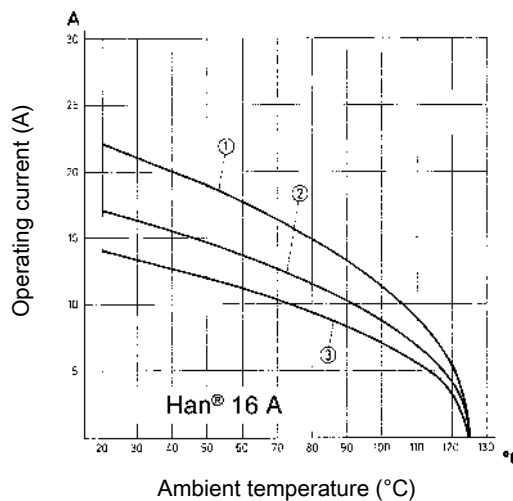
The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 2.5 mm<sup>2</sup>
- ② Conductor cross-section 1.5 mm<sup>2</sup>
- ③ Conductor cross-section 1 mm<sup>2</sup>

## Derating



- ① Conductor cross-section 2.5 mm<sup>2</sup>
- ② Conductor cross-section 1.5 mm<sup>2</sup>
- ③ Conductor cross-section 1 mm<sup>2</sup>

## Specifications and approvals


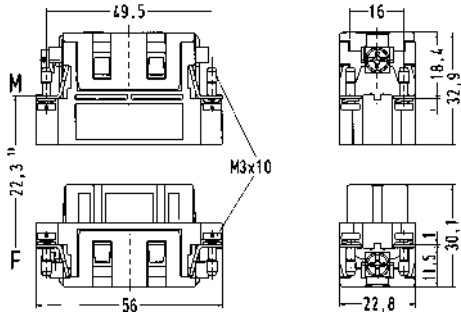

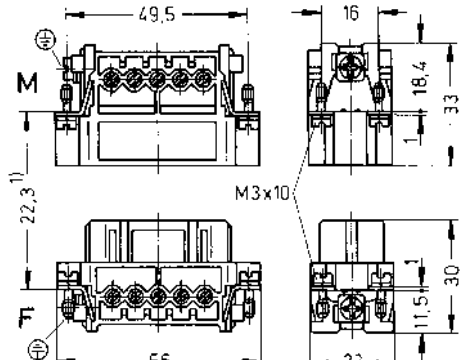
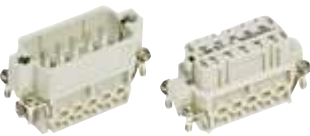
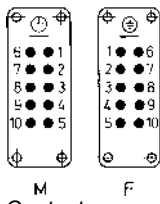
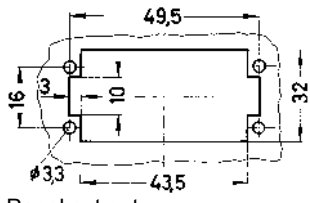
EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 UL 2237 PVVA2.E318390  
 CSA-C22.2 No. 182.3 PVVA8.E318390  
 DNV GL



Number of contacts

10+

16 A 250 V 4 kV 3


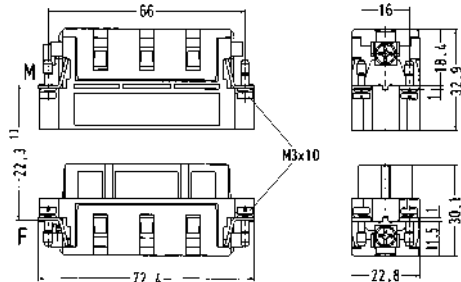

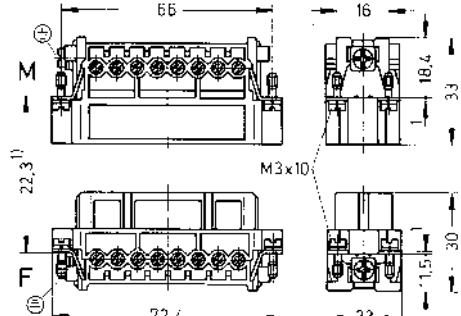

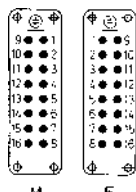
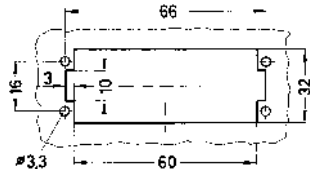
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han A®, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.14 ... 4	09 20 010 3001	09 20 010 3101	 <p>1) Distance for contact max. 24 mm</p>
<p>Han A®, Screw termination, Contact surface: Silver plated</p> 	0.75 ... 2.5	09 20 010 2612	09 20 010 2812	 <p>1) Distance for contact max. 24 mm Stripping length 7.5 mm Tightening torque 0.5 Nm</p>
<p>Han A®, Screw termination, With wire protection, Contact surface: Silver plated</p> 	0.75 ... 2.5	09 20 010 2614	09 20 010 2814	 <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out for use without Hoods/Housings</p>

Number of contacts

16+

16 A 250 V 4 kV 3

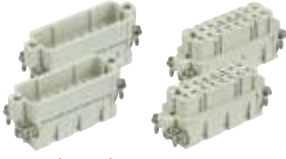
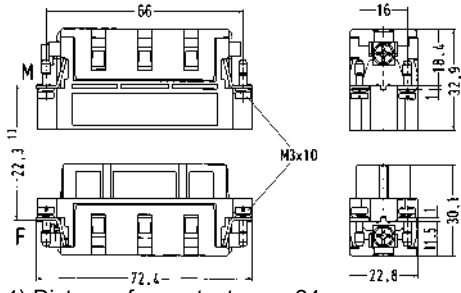
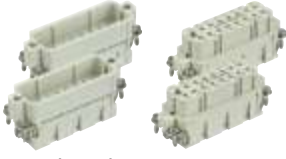
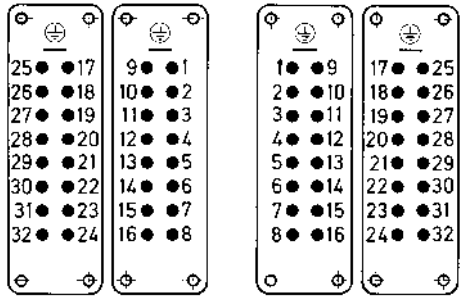
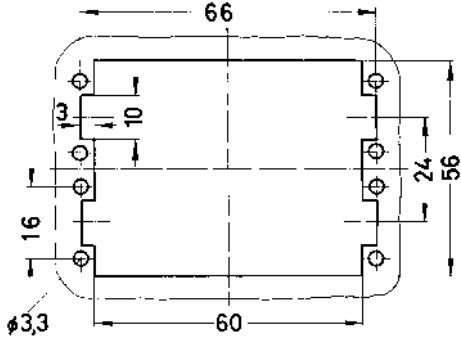
Han A

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han A®, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.14 ... 4	09 20 016 3001	09 20 016 3101	 <p>1) Distance for contact max. 24 mm</p>
<p>Han A®, Screw termination, Contact surface: Silver plated</p> 	0.75 ... 2.5	09 20 016 2612	09 20 016 2812	 <p>1) Distance for contact max. 24 mm Stripping length 7.5 mm Tightening torque 0.5 Nm</p>
<p>Han A®, Screw termination, With wire protection, Contact surface: Silver plated</p> 	0.75 ... 2.5	09 20 016 2614	09 20 016 2814	 <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out for use without Hoods/Housings</p>

Number of contacts

32+

16 A 250 V 4 kV 3


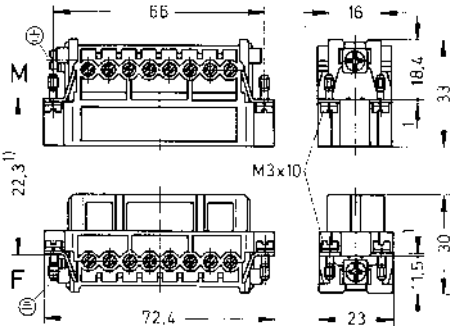

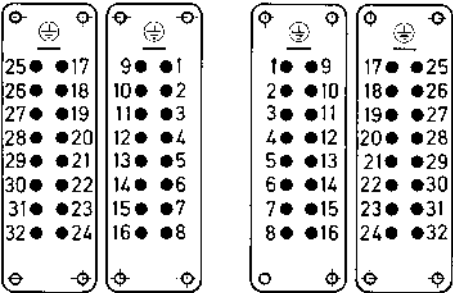
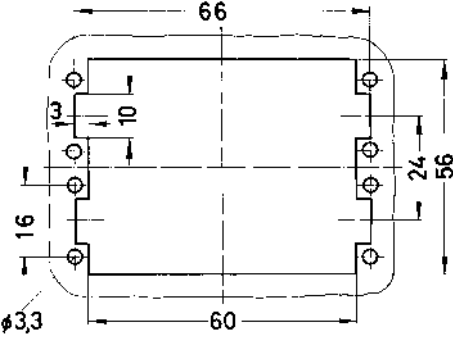
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han A®, Crimp termination, 1 ... 16</p>  <p>Please order crimp contacts separately. You need two inserts for a complete assembly!</p>	0.14 ... 4	09 20 016 3001	09 20 016 3101	 <p>1) Distance for contact max. 24 mm</p>
<p>Han A®, Continuing marking, Crimp termination, 17 ... 32</p>  <p>Please order crimp contacts separately. You need two inserts for a complete assembly!</p>	0.14 ... 4	09 20 016 3011	09 20 016 3111	 <p>17 ● 25 18 ● 26 19 ● 27 20 ● 28 21 ● 29 22 ● 30 23 ● 31 24 ● 32</p> <p>M F</p> <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out for use without Hoods/Housings</p>

Number of contacts

**32+**

16 A 250 V 4 kV 3


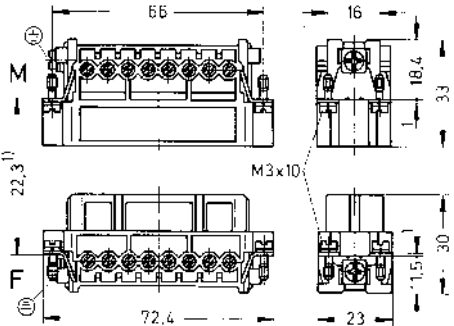

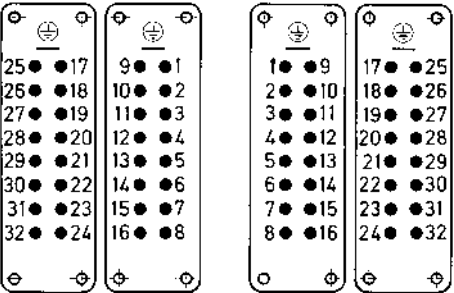
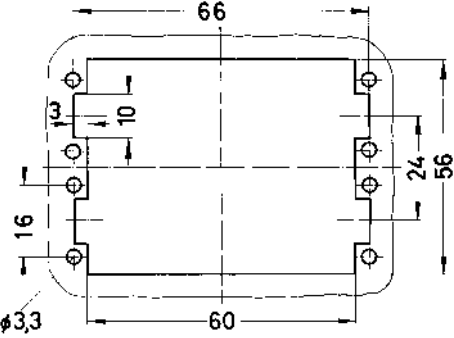
Han A

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han A®, Screw termination, 1 ... 16 Contact surface: Silver plated</p>  <p>You need two inserts for a complete assembly!</p>	0.75 ... 2.5	09 20 016 2612	09 20 016 2812	 <p>1) Distance for contact max. 24 mm Stripping length 7.5 mm Tightening torque 0.5 Nm</p>
<p>Han A®, Continuing marking, Screw termination, 17 ... 32 Contact surface: Silver plated</p>  <p>You need two inserts for a complete assembly!</p>	0.75 ... 2.5	09 20 016 2613	09 20 016 2813	 <p>M F</p> <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out for use without Hoods/Housings</p>

Number of contacts

32+

16 A 250 V 4 kV 3

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han A®, Screw termination, With wire protection, 1 ... 16</p> <p>Contact surface: Silver plated</p>  <p>You need two inserts for a complete assembly!</p>	0.75 ... 2.5	09 20 016 2614	09 20 016 2814	 <p>1) Distance for contact max. 24 mm Stripping length 7.5 mm Tightening torque 0.5 Nm</p>
<p>Han A®, Continuing marking, Screw termination, With wire protection, 17 ... 32</p> <p>Contact surface: Silver plated</p>  <p>You need two inserts for a complete assembly!</p>	0.75 ... 2.5	09 20 016 2615	09 20 016 2815	 <p>M F</p> <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out for use without Hoods/Housings</p>

## Technical characteristics

Contact resistance	≤1 mΩ
Material (contacts)	Copper alloy
RoHS	compliant with exemption

## Specifications and approvals


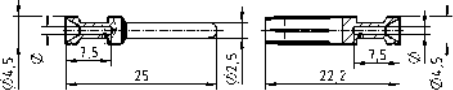

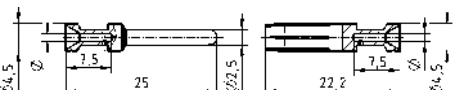
EN 60664-1  
IEC 61984

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																										
		Male	Female																											
Han E®, Crimp contact, Contact surface: Silver plated  	0.14 ... 0.37	09 33 000 6127	09 33 000 6227	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm<sup>2</sup></td> <td>AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm<sup>2</sup></td> <td>AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar</p> <p>Stripping length 7.5 mm</p>	Conductor cross-section	Identification	0.14-0.37 mm <sup>2</sup>	AWG 26-22	no groove	0.5 mm <sup>2</sup>	AWG 20	no groove	0.75 mm <sup>2</sup>	AWG 18	1 groove*	1 mm <sup>2</sup>	AWG 18	1 groove	1.5 mm <sup>2</sup>	AWG 16	2 groove	2.5 mm <sup>2</sup>	AWG 14	3 groove	3 mm <sup>2</sup>	AWG 12	wide groove	4 mm <sup>2</sup>	AWG 12	no groove
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0.5	09 33 000 6121	09 33 000 6220																												
0.75	09 33 000 6114	09 33 000 6214																												
1	09 33 000 6105	09 33 000 6205																												
1.5	09 33 000 6104	09 33 000 6204																												
2.5	09 33 000 6102	09 33 000 6202																												
3	09 33 000 6106	09 33 000 6206																												
4	09 33 000 6107	09 33 000 6207																												
Han E®, Crimp contact, Contact surface: Gold plated  	0.14 ... 0.37	09 33 000 6117	09 33 000 6217	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm<sup>2</sup></td> <td>AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm<sup>2</sup></td> <td>AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar</p> <p>Stripping length 7.5 mm</p>	Conductor cross-section	Identification	0.14-0.37 mm <sup>2</sup>	AWG 26-22	no groove	0.5 mm <sup>2</sup>	AWG 20	no groove	0.75 mm <sup>2</sup>	AWG 18	1 groove*	1 mm <sup>2</sup>	AWG 18	1 groove	1.5 mm <sup>2</sup>	AWG 16	2 groove	2.5 mm <sup>2</sup>	AWG 14	3 groove	3 mm <sup>2</sup>	AWG 12	wide groove	4 mm <sup>2</sup>	AWG 12	no groove
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0.5	09 33 000 6122	09 33 000 6222																												
0.75	09 33 000 6115	09 33 000 6215																												
1	09 33 000 6118	09 33 000 6218																												
1.5	09 33 000 6116	09 33 000 6216																												
2.5	09 33 000 6123	09 33 000 6223																												
3	09 33 000 6119	09 33 000 6219																												
4	09 33 000 6119	09 33 000 6221																												

Contents	Page
Han <sup>®</sup> 7 D .....	<b>Han 02.4</b>
Han <sup>®</sup> 8 D .....	<b>Han 02.6</b>
Han <sup>®</sup> 15-128 D .....	<b>Han 02.8</b>
Contacts Han D <sup>®</sup> .....	<b>Han 02.16</b>
Han DD <sup>®</sup> .....	<b>Han 02.18</b>
Contacts Han DD <sup>®</sup> .....	<b>Han 02.27</b>
Han <sup>®</sup> DDD .....	<b>Han 02.29</b>
Contacts Han <sup>®</sup> DDD .....	<b>Han 02.33</b>

Han D

Modified contact arrangement

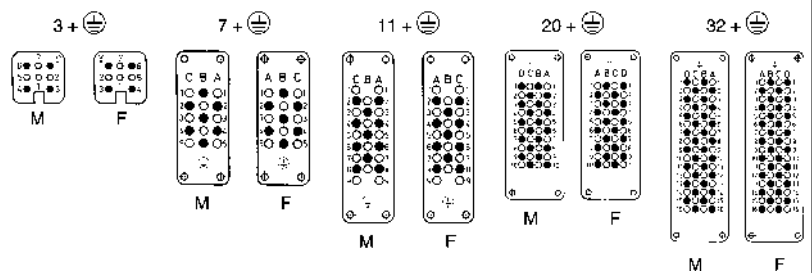
The connector series Han DDD®, Han DD® and Han D® equipped with all contacts may be used for voltages up to 250 V, pollution degree 3. A modified contact loading arrangement permits use up to 500 V also in the same pollution degree.

According to DIN EN 61 984 connectors should not be coupled or decoupled under electrical load.

Series Han D®

Rated current 10 A 500 V 6 kV 3  
 Rated voltage 10 A  
 Rated impulse voltage 500 V  
 Rated impulse voltage 6 kV  
 Pollution degree 3

Contact arrangement view from termination side

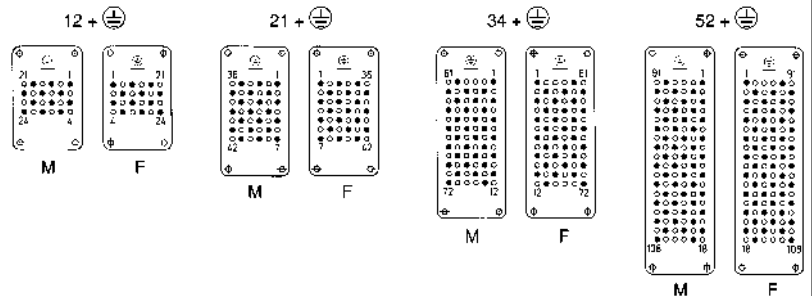


• Working contact ○ Without contact M - Male insert F - Female insert

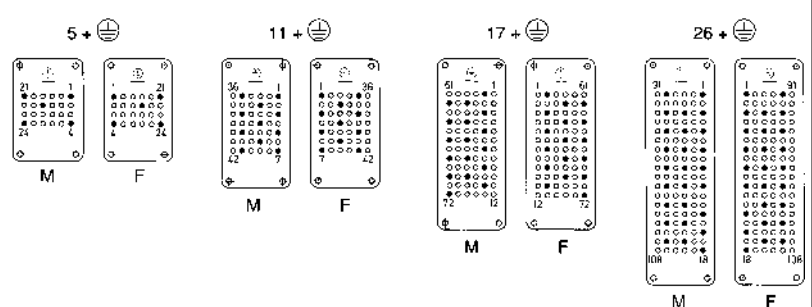
Series Han DD®

Rated current 10 A 400 V 6 kV 3  
 Rated voltage 10 A  
 Rated impulse voltage 400 V  
 Rated impulse voltage 6 kV  
 Pollution degree 3

Contact arrangement view from termination side



Rated current 10 A 500 V 6 kV 3  
 Rated voltage 10 A  
 Rated impulse voltage 500 V  
 Rated impulse voltage 6 kV  
 Pollution degree 3



• Working contact ○ Without contact M - Male insert F - Female insert

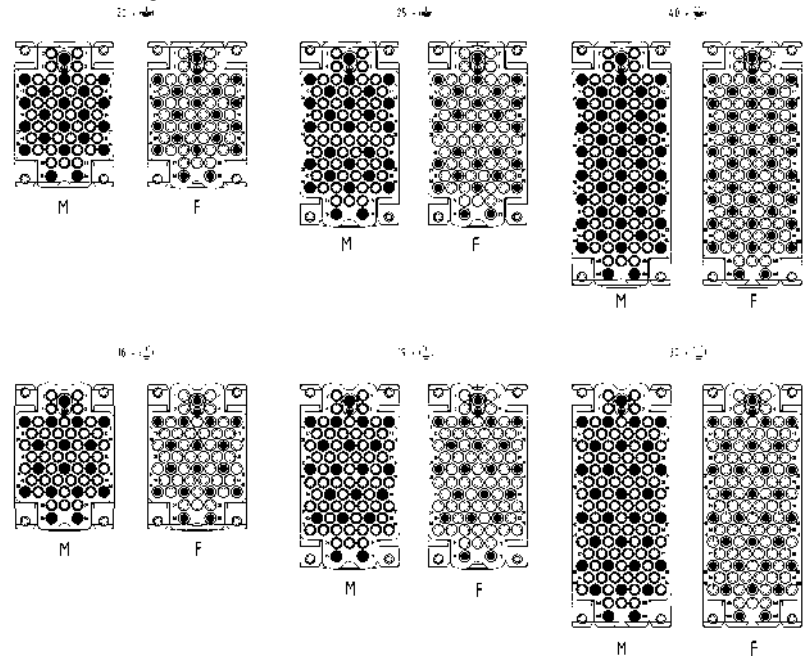


## Series Han DDD®

Rated current 10 A 400 V 6 kV 3  
 Rated voltage 400 V  
 Rated impulse voltage 6 kV  
 Pollution degree 3

Rated current 10 A 500 V 6 kV 3  
 Rated voltage 500 V  
 Rated impulse voltage 6 kV  
 Pollution degree 3

## Contact arrangement view from termination side



● Working contact   ○ Without contact   M - Male insert   F - Female insert

## Features

- Innovative Han-Quick Lock® termination with reduced wiring times
- Time saving rapid termination by use of crimping contacts
- for requirements up to 250 V / 10 A
- Gold and silver contacts available
- Suitable for thermo- and 1 mm FO contacts

## Technical characteristics

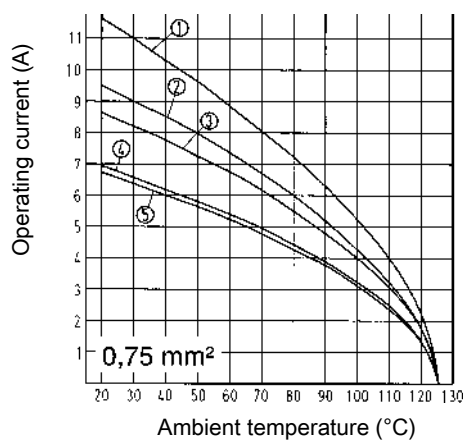
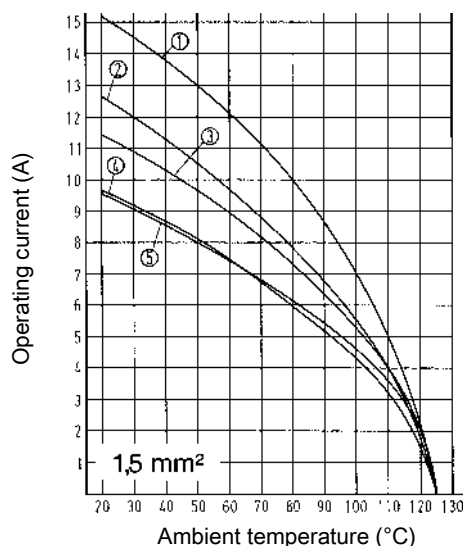
Number of contacts	7
Rated current	10 A
Rated voltage	250 V
Rated impulse voltage	4 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Rated voltage acc. to CSA	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC), Polyamide (PA)
Colour (insert)	RAL 7032 (pebble grey)
Material (seal)	NBR
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0, HB
RoHS	compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Han® 7 D      ④ Han® 40 D
- ② Han® 15 D    ⑤ Han® 64 D
- ③ Han® 25 D


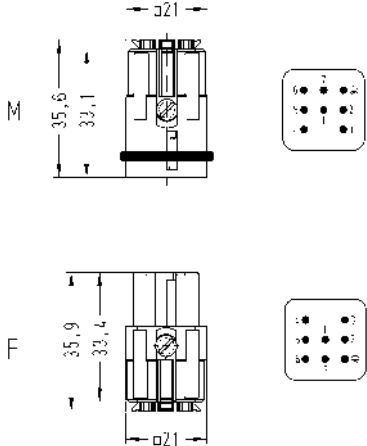

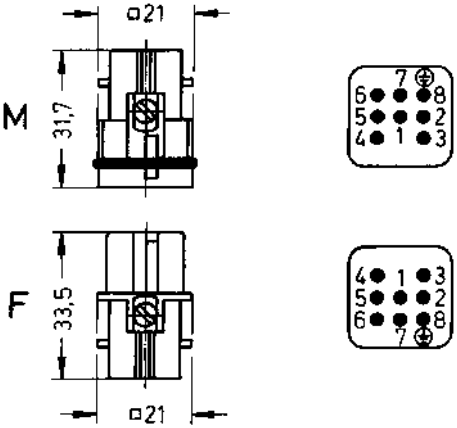
## Specifications and approvals

EN 60664-1  
 IEC 61984  
 EN 175301-801  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL

Number of contacts

# 7+

10 A 250 V 4 kV 3

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han D<sup>®</sup>, Han-Quick Lock<sup>®</sup> termination, Contact surface: Silver plated</p>  <p>Only for thermoplastic hoods / housings</p>	0.25 ... 1.5	09 21 007 2632	09 21 007 2732	 <p>Contact arrangement (view from termination side)</p>
<p>Han D<sup>®</sup>, Crimp termination</p>  <p>Please order crimp contacts separately. Only for thermoplastic hoods / housings</p>	0.14 ... 2.5	09 21 007 3031	09 21 007 3131	 <p>Contact arrangement (view from termination side)</p>

## Features

- Innovative Han-Quick Lock® termination with reduced wiring times
- Time saving rapid termination by use of crimping contacts
- Gold and silver contacts available
- Suitable for metal hoods and housings size Han® 3 A
- High density of contacts

## Technical characteristics

Number of contacts	8
Rated current	10 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Rated voltage	50 V AC, 120 V DC
Rated voltage acc. to UL	50 V
Rated voltage acc. to CSA	50 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC), Polyamide (PA)
Colour (insert)	RAL 7032 (pebble grey)
Material (seal)	NBR
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0, HB
RoHS	compliant with exemption

## Specifications and approvals


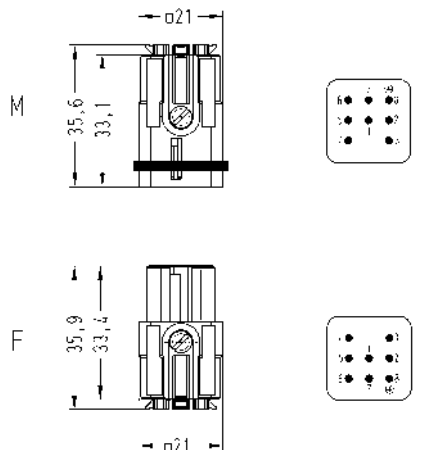

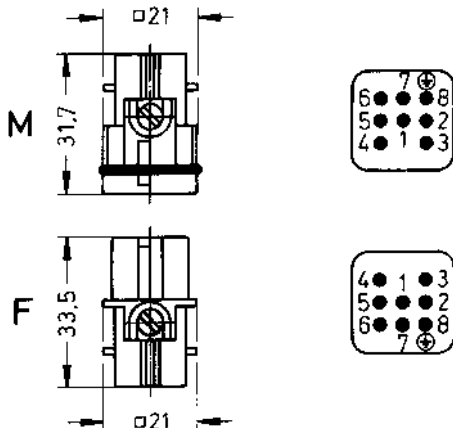
EN 60664-1  
 IEC 61984  
 EN 175301-801  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL

Number of contacts

# 8

10 A 50 V 0.8 kV 3

Han D

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han D<sup>®</sup>, Han-Quick Lock<sup>®</sup> termination, Contact surface: Silver plated</p>  <p>for thermoplastics and metal hoods/housings</p>	0.25 ... 1.5	09 36 008 2632	09 36 008 2732	 <p>Contact arrangement (view from termination side)</p>
<p>Han D<sup>®</sup>, Crimp termination</p>  <p>Please order crimp contacts separately. for thermoplastics and metal hoods/housings</p>	0.14 ... 2.5	09 36 008 3001	09 36 008 3101	 <p>Contact arrangement (view from termination side)</p>

## Features

- High density of contacts
- for requirements up to 250 V / 10 A
- Time saving rapid termination by use of crimping contacts
- Gold and silver contacts available
- Suitable for thermo- and 1 mm FO contacts

## Technical characteristics

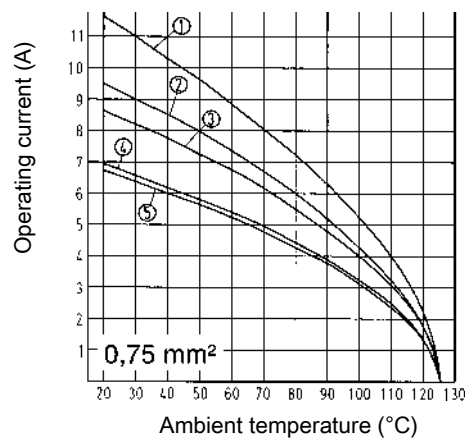
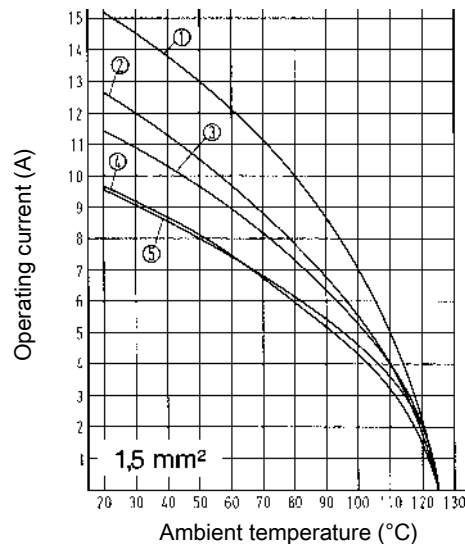
Number of contacts	15, 25, 40, 50, 64, 80, 128
Rated current	10 A
Rated voltage	250 V
Rated impulse voltage	4 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Rated voltage acc. to CSA	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 3 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Dimensions wire wrap post	1 x 1 mm
Termination length	22 mm
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Han® 7 D      ④ Han® 40 D
- ② Han® 15 D    ⑤ Han® 64 D
- ③ Han® 25 D

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 EN 175301-801  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL

## Details

ATTENTION! Guide pins and bushes are prescribed (see chapter Han 80).

Number of contacts

# 15+

10 A 250 V 4 kV 3

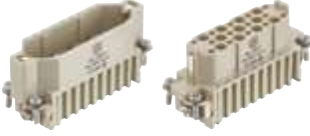
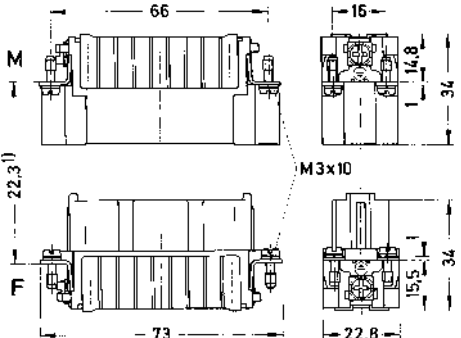
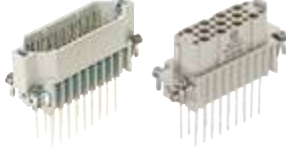
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han D®, Crimp termination</p> <p>Please order crimp contacts separately.</p>	0.14 ... 2.5	09 21 015 3001	09 21 015 3101	<p>1) distance for contact max. 24 mm</p>
<p>Han D®, Wrap termination, Contact surface: Silver plated</p>		09 21 015 2601	09 21 015 2701	

Number of contacts

# 25+

10 A 250 V 4 kV 3

Han D


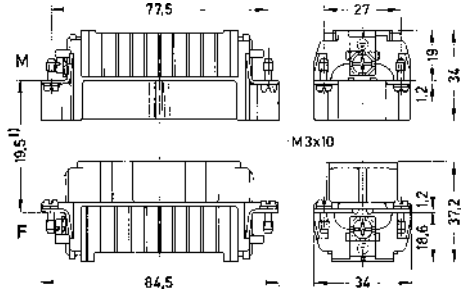
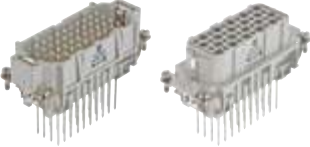
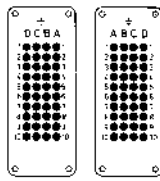

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han D®, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.14 ... 2.5	09 21 025 3001	09 21 025 3101	 <p>1) distance for contact max. 24 mm</p>
<p>Han D®, Wrap termination, Contact surface: Silver plated</p> 		09 21 025 2601	09 21 025 2701	



Number of contacts

**40+**

10 A 250 V 4 kV 3

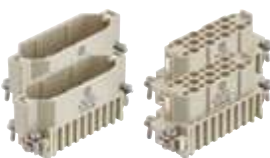
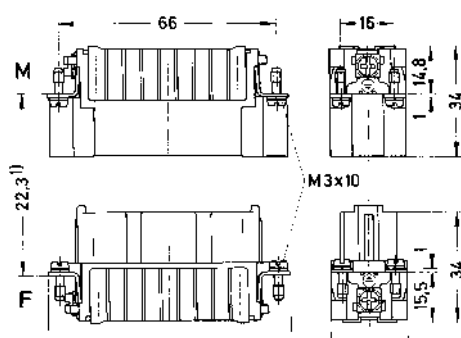
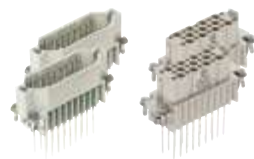
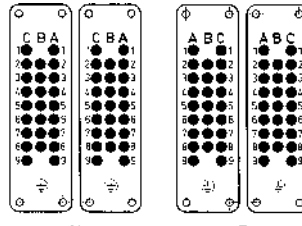
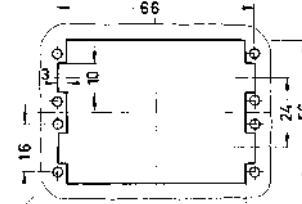
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han D®, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.14 ... 2.5	09 21 040 3001	09 21 040 3101	 <p>1) distance for contact max. 21 mm</p>
<p>Han D®, Wrap termination, Contact surface: Silver plated</p> 		09 21 040 2601	09 21 040 2701	 <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out for use without Hoods/Housings</p>

Number of contacts

**50+**

10 A 250 V 4 kV 3


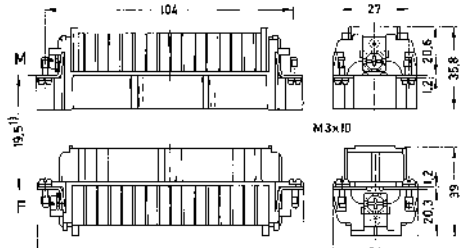
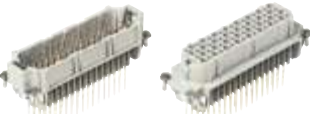
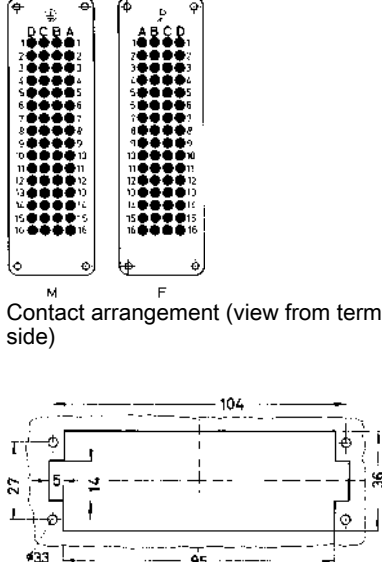
Han D

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han D®, Crimp termination</p>  <p>Please order crimp contacts separately. You need two inserts for a complete assembly!</p>	0.14 ... 2.5	09 21 025 3001	09 21 025 3101	 <p>1) distance for contact max. 24 mm</p>
<p>Han D®, Wrap termination, Contact surface: Silver plated</p>  <p>You need two inserts for a complete assembly!</p>		09 21 025 2601	09 21 025 2701	 <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out for use without Hoods/Housings</p>

Number of contacts

**64+**

10 A 250 V 4 kV 3


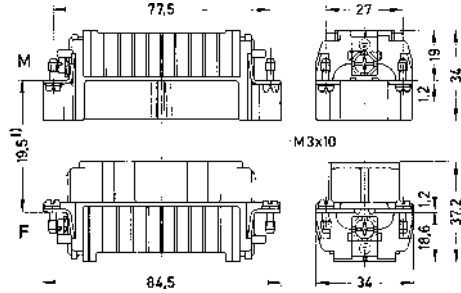
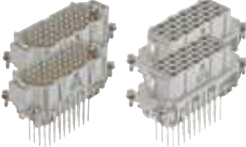
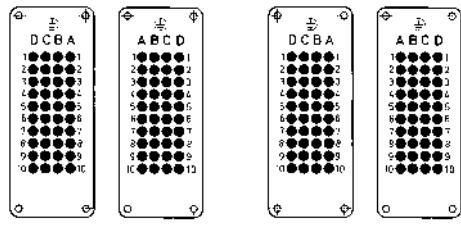
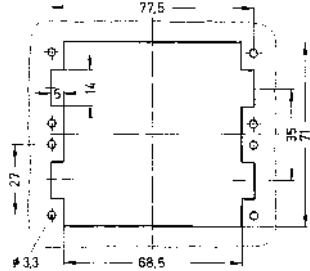
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han D®, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.14 ... 2.5	09 21 064 3001	09 21 064 3101	 <p>1) distance for contact max. 21 mm</p>
<p>Han D®, Wrap termination, Contact surface: Silver plated</p> 		09 21 064 2601	09 21 064 2701	 <p>Contact arrangement (view from termination side)</p> <p>Panel cut out for use without Hoods/Housings</p>

Number of contacts

**80+**

10 A 250 V 4 kV 3


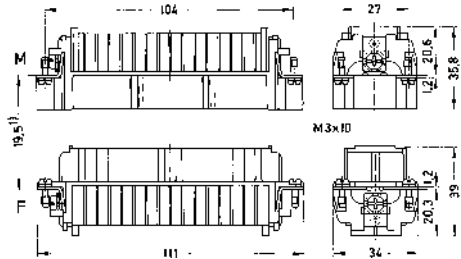

Han D

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han D®, Crimp termination</p>  <p>Please order crimp contacts separately. You need two inserts for a complete assembly!</p>	0.14 ... 2.5	09 21 040 3001	09 21 040 3101	 <p>1) distance for contact max. 21 mm</p>
<p>Han D®, Wrap termination, Contact surface: Silver plated</p>  <p>You need two inserts for a complete assembly!</p>		09 21 040 2601	09 21 040 2701	 <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out for use without Hoods/Housings</p>

Number of contacts

128+

10 A 250 V 4 kV 3

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han D®, Crimp termination</p>  <p>Please order crimp contacts separately. You need two inserts for a complete assembly!</p>	0.14 ... 2.5	09 21 064 3001	09 21 064 3101	 <p>1) distance for contact max. 21 mm</p>
<p>Han D®, Wrap termination, Contact surface: Silver plated</p>  <p>You need two inserts for a complete assembly!</p>		09 21 064 2601	09 21 064 2701	

Han D

## Technical characteristics

Contact resistance	≤3 mΩ
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
RoHS	compliant with exemption, compliant

## Specifications and approvals

EN 60664-1  
IEC 61984

## Details


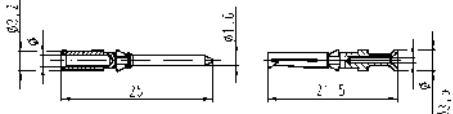

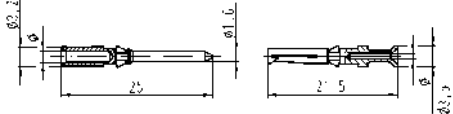
**Crimping tools** see chapter Han 90


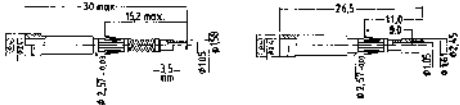
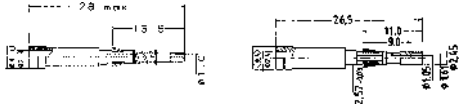

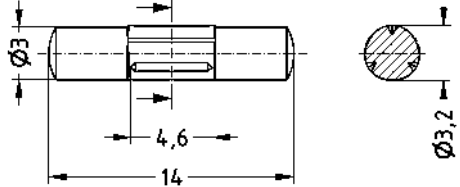
### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

### Coding pin

Use of the coding pin prevents incorrect mating to other connectors of the same type. The male pin should be omitted from the opposing cavity in the male insert.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																					
		Male	Female																						
Han D®, Crimp contact, Contact surface: Silver plated  	0.14 ... 0.37	09 15 000 6104	09 15 000 6204	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	ø	Stripping length	0.14-0.37 mm <sup>2</sup> AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup> AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup> AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup> AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup> AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	6 mm
	Conductor cross-section	ø	Stripping length																						
	0.14-0.37 mm <sup>2</sup> AWG 26-22	0.9 mm	8 mm																						
	0.5 mm <sup>2</sup> AWG 20	1.1 mm	8 mm																						
	0.75 mm <sup>2</sup> AWG 18	1.3 mm	8 mm																						
	1 mm <sup>2</sup> AWG 18	1.45 mm	8 mm																						
1.5 mm <sup>2</sup> AWG 16	1.75 mm	8 mm																							
2.5 mm <sup>2</sup> AWG 14	2.25 mm	6 mm																							
0.5	09 15 000 6103	09 15 000 6203																							
0.75	09 15 000 6105	09 15 000 6205																							
1	09 15 000 6102	09 15 000 6202																							
1.5	09 15 000 6101	09 15 000 6201																							
2.5	09 15 000 6106	09 15 000 6206																							
Han D®, Crimp contact, Contact surface: Gold plated  	0.14 ... 0.37	09 15 000 6124	09 15 000 6224	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	ø	Stripping length	0.14-0.37 mm <sup>2</sup> AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup> AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup> AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup> AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup> AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	6 mm
	Conductor cross-section	ø	Stripping length																						
	0.14-0.37 mm <sup>2</sup> AWG 26-22	0.9 mm	8 mm																						
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	0.75 mm <sup>2</sup> AWG 18	1.3 mm	8 mm																						
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1.5 mm <sup>2</sup> AWG 16	1.75 mm	8 mm																							
2.5 mm <sup>2</sup> AWG 14	2.25 mm	6 mm																							
0.5	09 15 000 6123	09 15 000 6223																							
0.75	09 15 000 6125	09 15 000 6225																							
1	09 15 000 6122	09 15 000 6222																							
1.5	09 15 000 6121	09 15 000 6221																							
2.5	09 15 000 6126	09 15 000 6226																							

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
FO contact, for 1 mm plastic fibre  		20 10 001 3212 20 10 001 3213	20 10 001 3222	 <p>20 10 001 3212 + 20 10 001 3222 for Han® 7 D, Han® 8 D, Han® 40 D, Han® 64 D, Han® 80 D, Han® 128 D</p>  <p>20 10 001 3213 + 20 10 001 3222 for Han® 15 D, Han® 25 D, Han® 50 D</p>
Han D®, Han DD®, Han® DDD, Coding pin   <p>Only for crimp termination With loss of one contact</p>			09 33 000 9915	

## Features

- High density of contacts
- for requirements up to 250 V / 10 A
- Time saving rapid termination by use of crimping contacts
- Gold and silver contacts available
- Suitable for thermo- and 1 mm FO contacts

## Technical characteristics

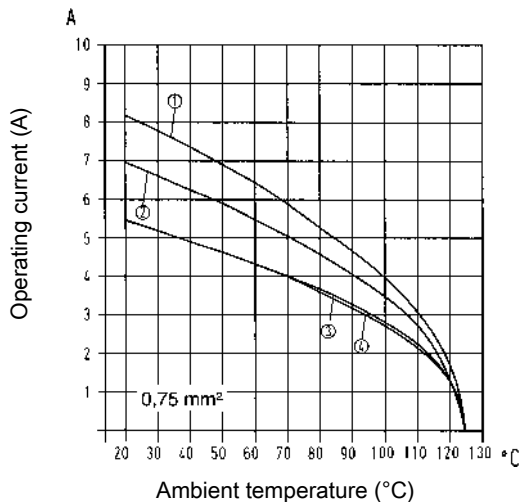
Number of contacts	24, 28, 40, 42, 72, 108, 144, 216
Rated current	10 A
Rated voltage	250 V
Rated impulse voltage	4 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Rated voltage acc. to CSA	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Derating

### Current carrying capacity

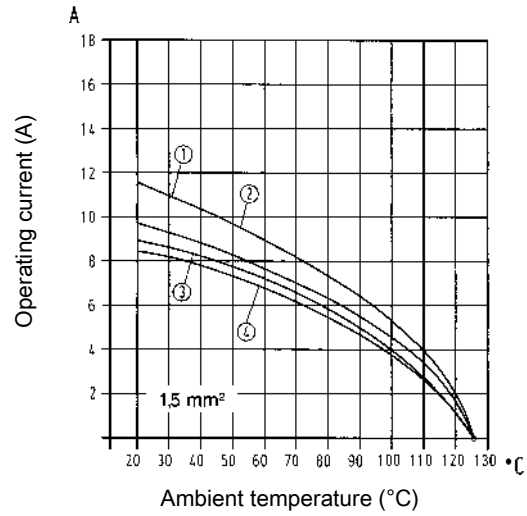
The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2

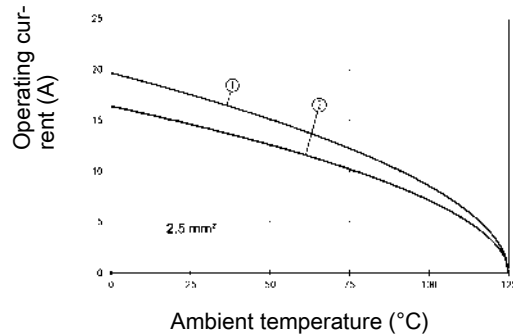


- ① Han® 24 DD
- ② Han® 42 DD
- ③ Han® 72 DD
- ④ Han® 108 DD

## Derating



- ① Han® 24 DD
- ② Han® 42 DD
- ③ Han® 72 DD
- ④ Han® 108 DD



- ① Han® 28 DD
- ② Han® 40 DD

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
DNV GL

## Details

Guide pins and bushes are recommended (see chapter Han 80).



Number of contacts

# 24+

10 A 250 V 4 kV 3

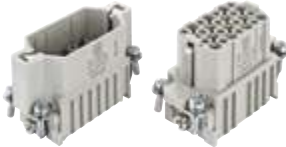
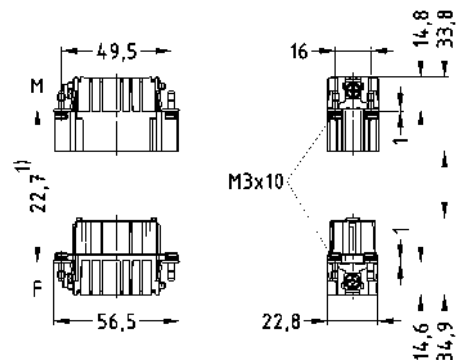
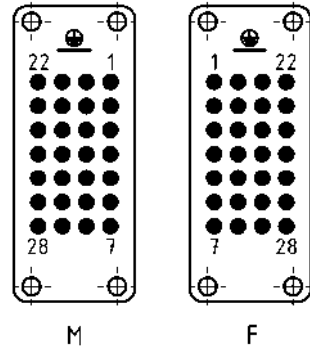
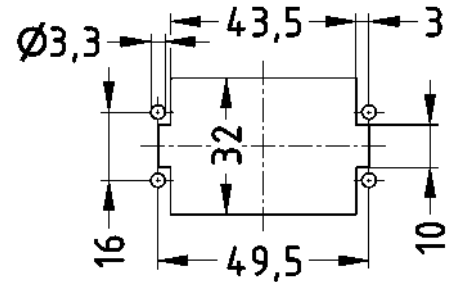
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han DD®, Crimp termination</p> <p>Please order crimp contacts separately.</p>	0.14 ... 2.5	09 16 024 3001	09 16 024 3101	<p>1) distance for contact max. 21 mm</p> <p>Contact arrangement (view from termination side)</p> <p>Panel cut out for use without Hoods/Housings</p>

Number of contacts

# 28+

10 A 250 V 4 kV 3

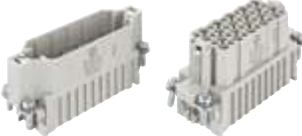
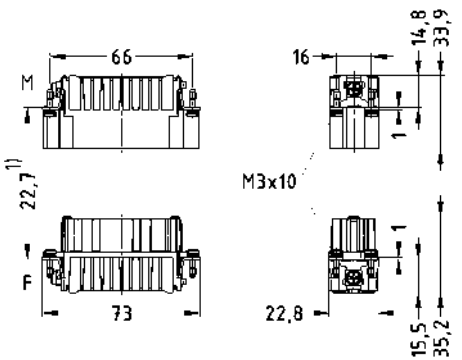
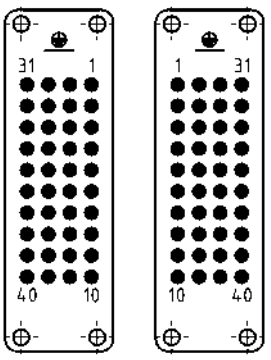
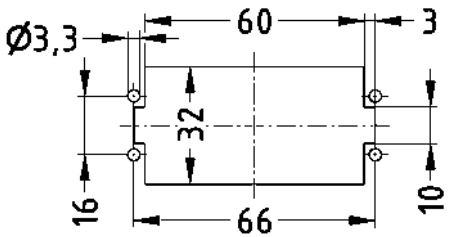
Han D

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han DD®, Crimp termination  <p>Please order crimp contacts separately.</p>	0.14 ... 2.5	09 16 028 3001	09 16 028 3101	 <p>1) distance for contact max. 24 mm</p>  <p>M F</p> <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out for use without Hoods/Housings</p>

Number of contacts

**40+**

10 A 250 V 4 kV 3

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han DD®, Crimp termination  Please order crimp contacts separately.	0.14 ... 2.5	09 16 040 3001	09 16 040 3101	 <p>1) distance for contact max. 24 mm</p>  <p>M F</p> <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out for use without Hoods/Housings</p>

Number of contacts

42+

10 A 250 V 4 kV 3


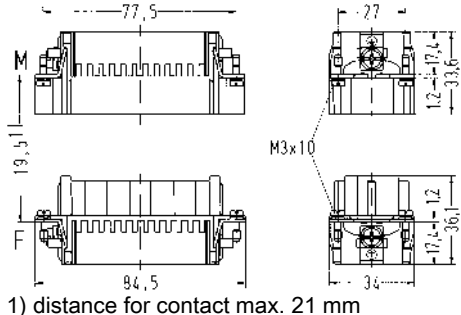
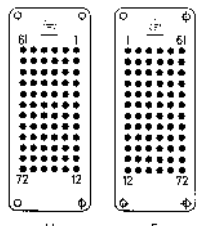
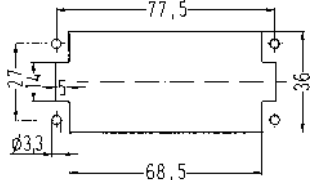
Han D

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han DD®, Crimp termination</p> <p>Please order crimp contacts separately.</p>	0.14 ... 2.5	09 16 042 3001	09 16 042 3101	<p>1) distance for contact max. 21 mm</p> <p>Contact arrangement (view from termination side)</p> <p>Panel cut out for use without Hoods/Housings</p>

Number of contacts

**72+**

10 A 250 V 4 kV 3


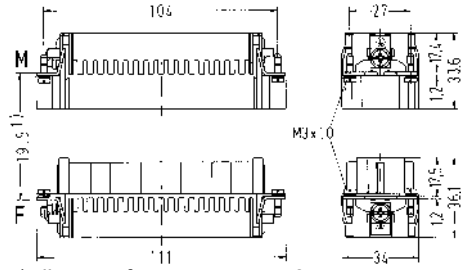
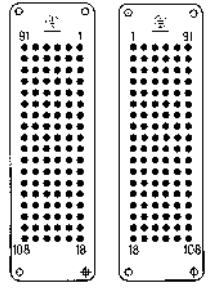
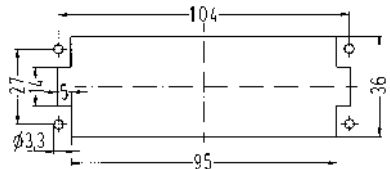
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han DD®, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.14 ... 2.5	09 16 072 3001	09 16 072 3101	 <p>1) distance for contact max. 21 mm</p>  <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out for use without Hoods/Housings</p>

Number of contacts

# 108+

10 A 250 V 4 kV 3


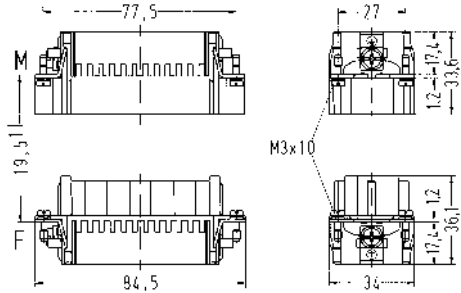

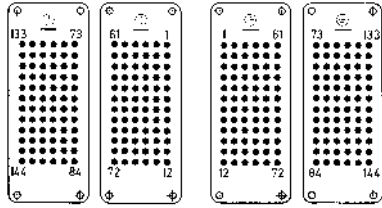
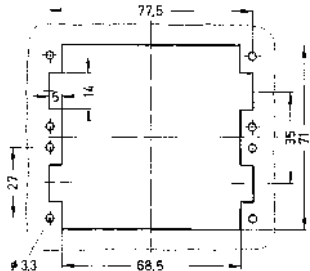
Han D

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han DD®, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.14 ... 2.5	09 16 108 3001	09 16 108 3101	 <p>1) distance for contact max. 21 mm</p>  <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out for use without Hoods/Housings</p>

Number of contacts

144+

10 A 250 V 4 kV 3

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han DD®, Crimp termination, 1 ... 72</p>  <p>Please order crimp contacts separately. You need two inserts for a complete assembly!</p>	0.14 ... 2.5	09 16 072 3001	09 16 072 3101	 <p>1) distance for contact max. 21 mm</p>
<p>Han DD®, Continuing marking, Crimp termination, 73 ... 144</p>  <p>Please order crimp contacts separately. You need two inserts for a complete assembly!</p>	0.14 ... 2.5	09 16 072 3011	09 16 072 3111	 <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out for use without Hoods/Housings</p>

Number of contacts

**216+**

10 A 250 V 4 kV 3

Han D

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han DD®, Crimp termination, 1 ... 108</p> <p>Please order crimp contacts separately. You need two inserts for a complete assembly!</p>	0.14 ... 2.5	09 16 108 3001	09 16 108 3101	<p>1) distance for contact max. 21 mm</p>
<p>Han DD®, Continuing marking, Crimp termination, 109 ... 216</p> <p>Please order crimp contacts separately. You need two inserts for a complete assembly!</p>	0.14 ... 2.5	09 16 108 3011	09 16 108 3111	<p>Contact arrangement (view from termination side)</p> <p>Panel cut out for use without Hoods/Housings</p>



## Technical characteristics

Contact resistance	≤3 mΩ
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
RoHS	compliant with exemption, compliant

## Specifications and approvals

EN 60664-1  
IEC 61984

## Details


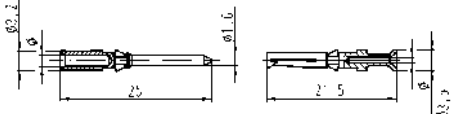

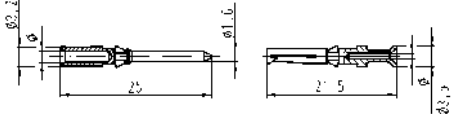

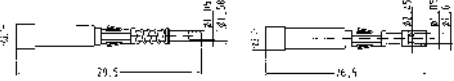
**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


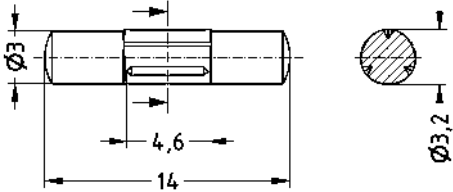
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

### Coding pin

Use of the coding pin prevents incorrect mating to other connectors of the same type. The male pin should be omitted from the opposing cavity in the male insert.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																												
		Male	Female																													
Han D <sup>®</sup> , Crimp contact, Contact surface: Silver plated 	0.14 ... 0.37	09 15 000 6104	09 15 000 6204	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>Ø 14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	Ø	Stripping length	Ø 14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm
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Han D <sup>®</sup> , Crimp contact, Contact surface: Gold plated 	0.14 ... 0.37	09 15 000 6124	09 15 000 6224	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>Ø 14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	Ø	Stripping length	Ø 14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm
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1.5	09 15 000 6121	09 15 000 6221																														
2.5	09 15 000 6126	09 15 000 6226																														
FO contact, for 1 mm plastic fibre 		20 10 001 3211	20 10 001 3221	 20 10 001 3211 + 20 10 001 3221																												

Han D

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han D®, Han DD®, Han® DDD, Coding pin  <p>Only for crimp termination                      With loss of one contact</p>			09 33 000 9915	

## Features

- High density of contacts
- for requirements up to 250 V / 10 A
- Time saving rapid termination by use of crimping contacts
- Gold and silver contacts available

## Technical characteristics

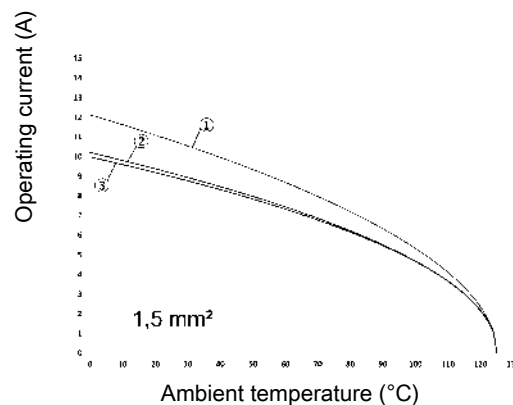
Number of contacts	55, 75, 107
Rated current	10 A
Rated voltage	250 V
Rated impulse voltage	4 kV
Pollution degree	3
Insulation resistance	$>10^{10} \Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Han® 55 DDD
- ② Han® 75 DDD
- ③ Han® 107 DDD

## Specifications and approvals

IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076

## Details


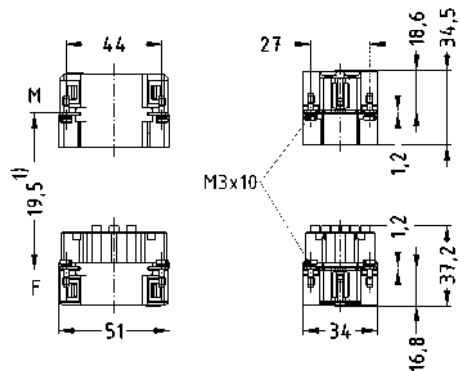
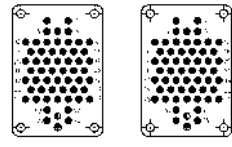
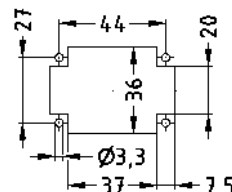
Guide pins and bushes are recommended (see chapter Han 80).

Number of contacts

# 55+

10 A 250 V 4 kV 3


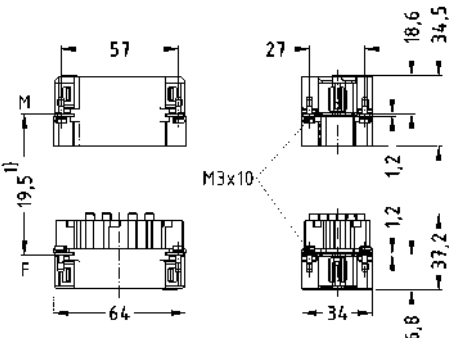
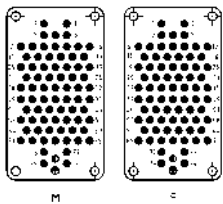
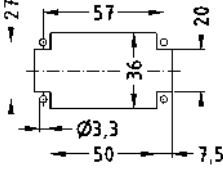
Han D

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® DDD, Crimp termination</p>  <p>PE connection with a Han D® crimp contact Please order crimp contacts separately.</p>	0.14 ... 2.5	09 16 055 2001	09 16 055 2101	 <p>1) distance for contact max. 21 mm</p>  <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out for use without Hoods/Housings</p>

Number of contacts

**75+**

10 A 250 V 4 kV 3


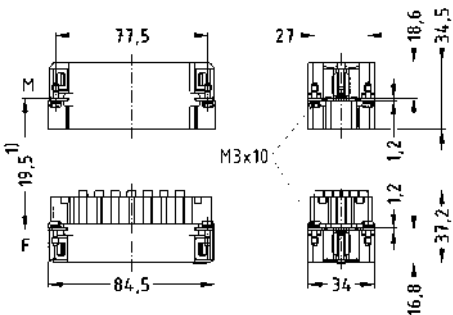
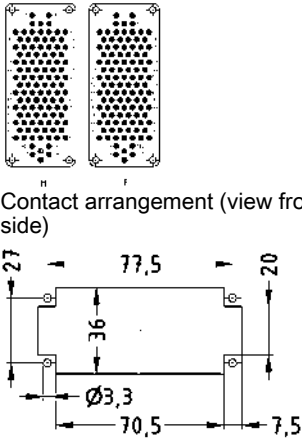
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® DDD, Crimp termination</p>  <p>PE connection with a Han D® crimp contact Please order crimp contacts separately.</p>	0.14 ... 2.5	09 16 075 2001	09 16 075 2101	 <p>1) distance for contact max. 21 mm</p>  <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out for use without Hoods/Housings</p>

Number of contacts

# 107+

10 A 250 V 4 kV 3

Han D

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® DDD, Crimp termination</p>  <p>PE connection with a Han D® crimp contact Please order crimp contacts separately.</p>	0.14 ... 2.5	09 16 107 2001	09 16 107 2101	 <p>1) distance for contact max. 21 mm</p>  <p>Contact arrangement (view from termination side)</p> <p>Panel cut out for use without Hoods/Housings</p>

## Technical characteristics

Contact resistance	≤3 mΩ
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
RoHS	compliant with exemption, compliant

## Specifications and approvals

EN 60664-1  
IEC 61984

## Details


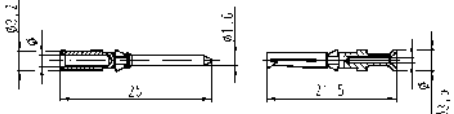

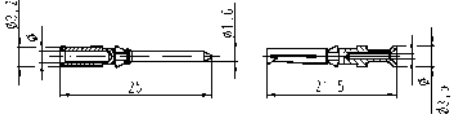

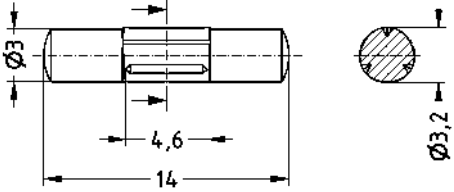
**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

### Coding pin

Use of the coding pin prevents incorrect mating to other connectors of the same type. The male pin should be omitted from the opposing cavity in the male insert.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																												
		Male	Female																													
Han D®, Crimp contact, Contact surface: Silver plated  	0.14 ... 0.37	09 15 000 6104	09 15 000 6204	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>Ø 14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	Ø	Stripping length	Ø 14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm
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Han D®, Crimp contact, Contact surface: Gold plated  	0.14 ... 0.37	09 15 000 6124	09 15 000 6224	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>Ø 14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	Ø	Stripping length	Ø 14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm
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Han D®, Han DD®, Han® DDD, Coding pin    Only for crimp termination With loss of one contact		09 33 000 9915																														

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Han® EE .....	<b>Han 03.31</b>
Han® EEE .....	<b>Han 03.38</b>
Contacts .....	<b>Han 03.41</b>

Han E/  
EE

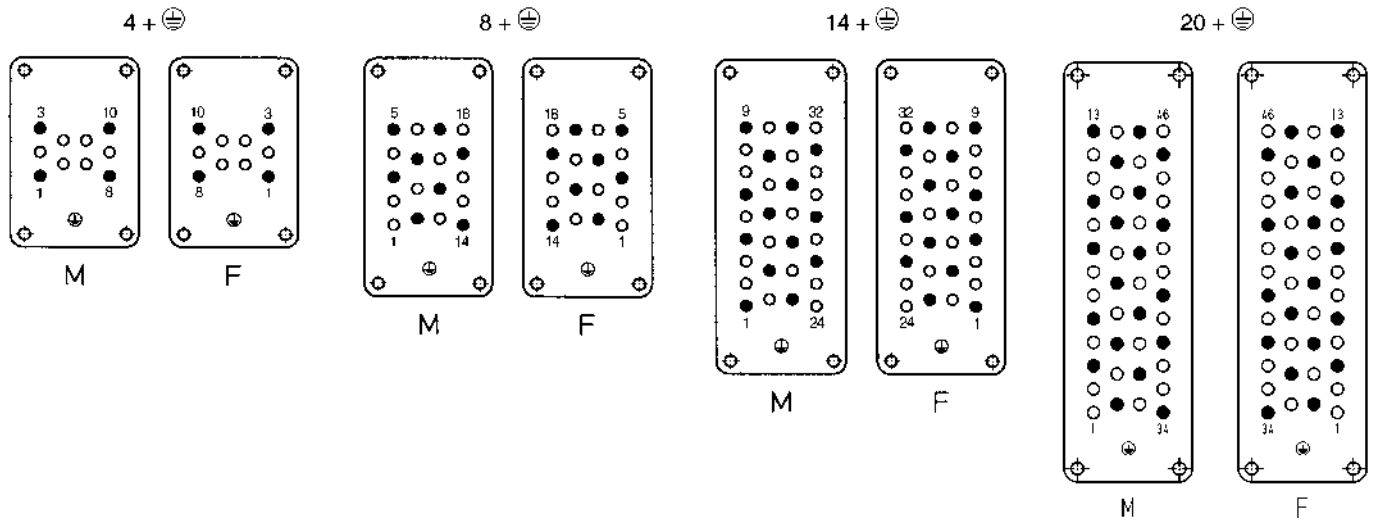


Han E/  
EE

The connector series Han® EE equipped with all contacts may be used for voltages up to 500 V ~ pollution degree 3. A modified contact loading arrangement permits use up to 1000 V ~ pollution degree also in pollution degree 3. Fully equipped connectors may also be used up to 1000 V ~ but in a lower pollution degree. See chapter 00. According to IEC 61984 connectors should not be coupled or decoupled under electrical load.

## 690 V Pollution degree 3

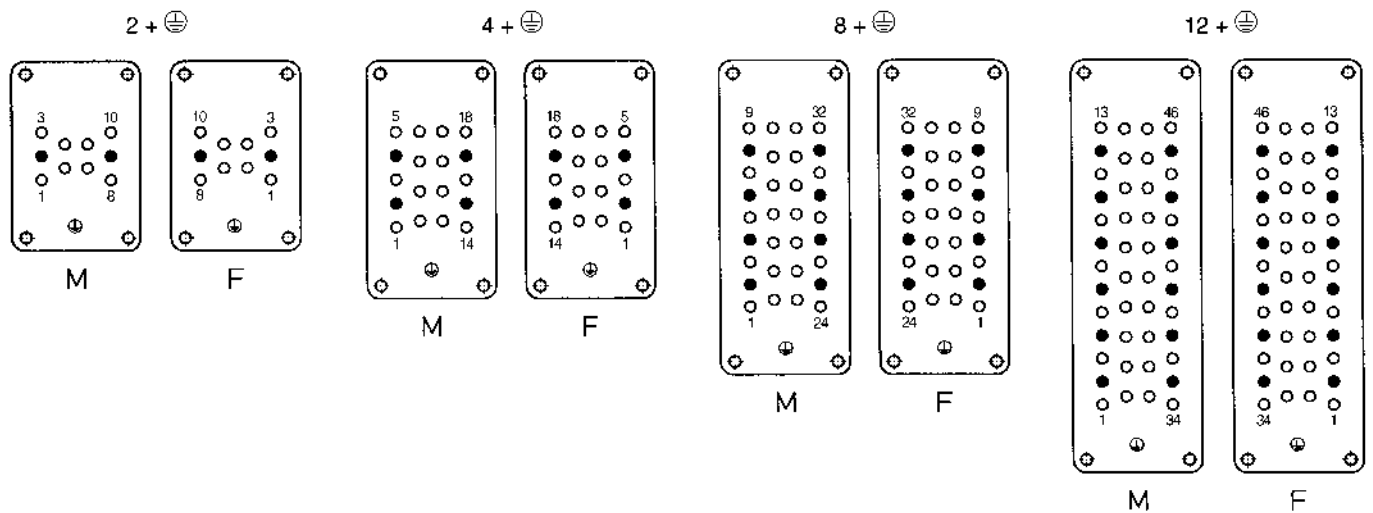
Contact arrangement view from termination side



• Working contact   ○ Without contact   M - Male insert   F - Female insert

## 1000 V Pollution degree 3

Contact arrangement view from termination side



• Working contact   ○ Without contact   M - Male insert   F - Female insert

## Features

- Covers a wide range of cross-sections
- Screw termination with wire protection

## Technical characteristics

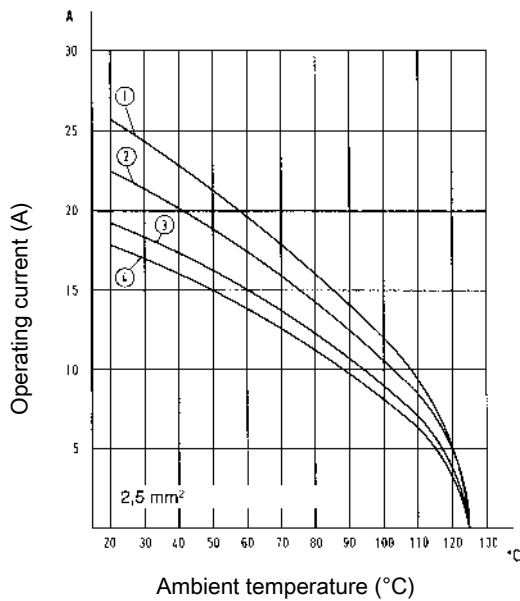
Number of contacts	6, 10, 16, 24, 32, 48
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Rated voltage acc. to CSA	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤1 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption, compliant

## Derating

### Current carrying capacity

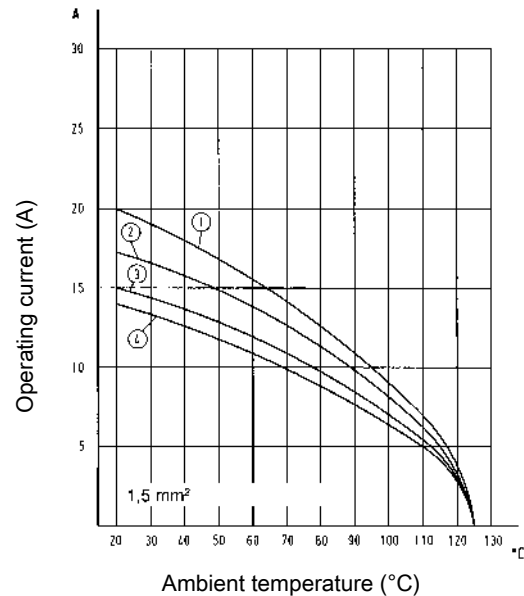
The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Han® 6 E
- ② Han® 10 E
- ③ Han® 16 E Han® 32 E
- ④ Han® 24 E Han® 48 E

## Derating



- ① Han® 6 E
- ② Han® 10 E
- ③ Han® 16 E Han® 32 E
- ④ Han® 24 E Han® 48 E

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
UL 2237 PVVA2.E318390  
CSA-C22.2 No. 182.3 PVVA8.E318390  
DNV GL

## Details

Internal use in the switch cabinet in conjunction with Han-Snap® (see chapter Han 11)

Suitable for hoods/housings of series Han® B, Han® M, Han® EMC, Han® HPR, Han® Easy Hood (see chapter Han 31)

Tightening torque 0.5 Nm

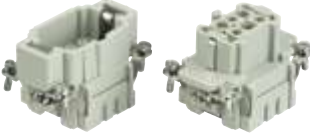
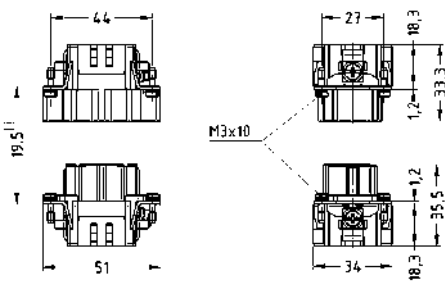

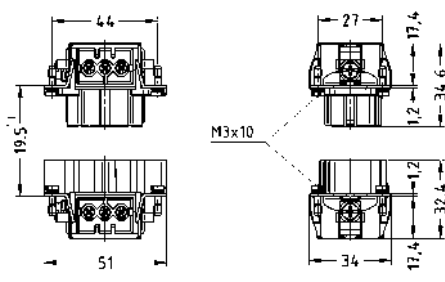
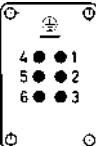
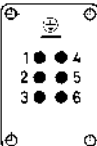
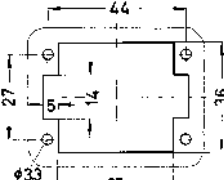
Tightening torque PE screw 1.2 Nm

Number of contacts

6+

16 A 500 V 6 kV 3


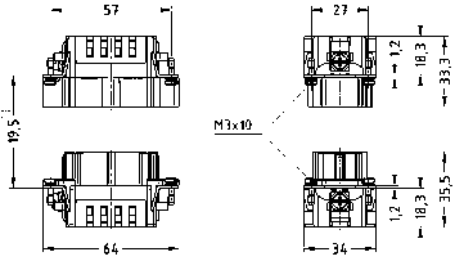

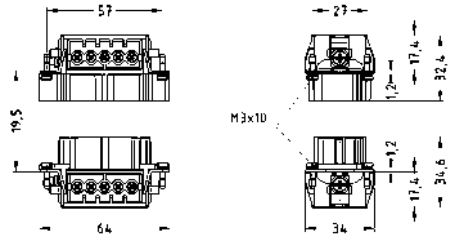
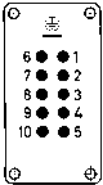
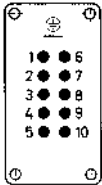
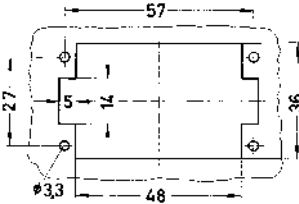
Han E/  
EE

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han E®, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.14 ... 4	09 33 006 2602	09 33 006 2702	 <p>1) distance for contact max. 21 mm</p>
<p>Han E®, Screw termination, With wire protection, Contact surface: Silver plated</p> 	0.75 ... 2.5	09 33 006 2601	09 33 006 2701	 <p>1) distance for contact max. 21 mm</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>M</p> </div> <div style="text-align: center;">  <p>F</p> </div> </div> <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out</p>

Number of contacts

10+

16 A 500 V 6 kV 3


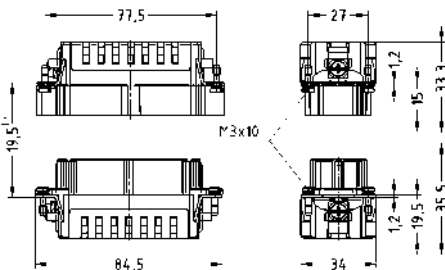

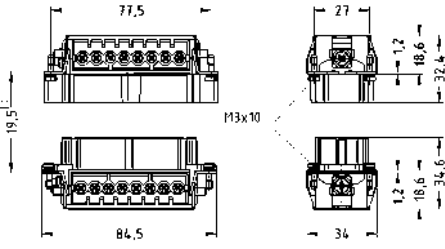
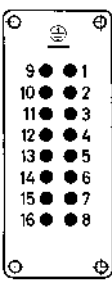
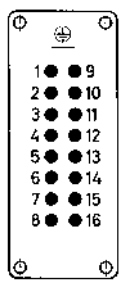
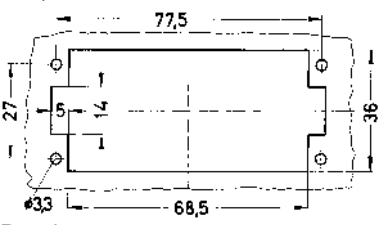
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han E®, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.14 ... 4	09 33 010 2602	09 33 010 2702	 <p>1) distance for contact max. 21 mm</p>
<p>Han E®, Screw termination, With wire protection, Contact surface: Silver plated</p> 	0.75 ... 2.5	09 33 010 2601	09 33 010 2701	 <p>1) distance for contact max. 21 mm</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>M</p> </div> <div style="text-align: center;">  <p>F</p> </div> </div> <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out</p>

Number of contacts

16+

16 A 500 V 6 kV 3


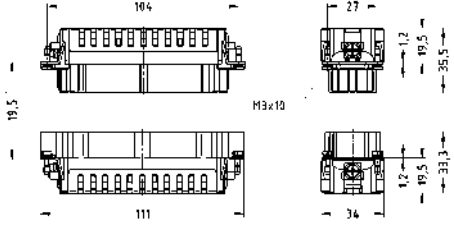

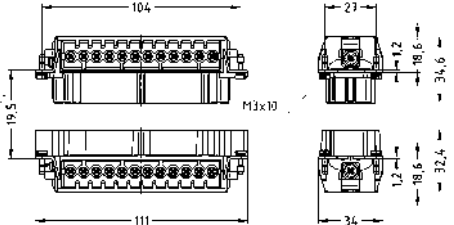
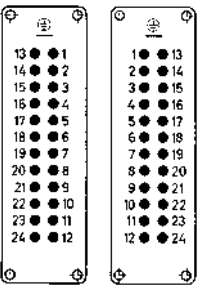
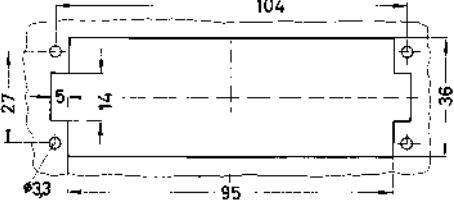
Han E/  
EE

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han E®, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.14 ... 4	09 33 016 2602	09 33 016 2702	 <p>1) distance for contact max. 21 mm</p>
<p>Han E®, Screw termination, With wire protection, Contact surface: Silver plated</p> 	0.75 ... 2.5	09 33 016 2601	09 33 016 2701	 <p>1) distance for contact max. 21 mm</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>M</p> </div> <div style="text-align: center;">  <p>F</p> </div> </div> <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out</p>

Number of contacts

24+

16 A 500 V 6 kV 3


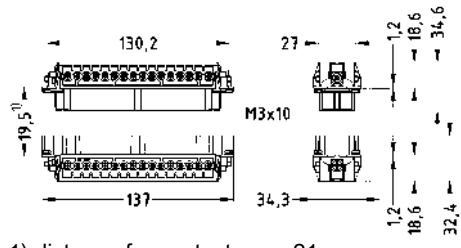
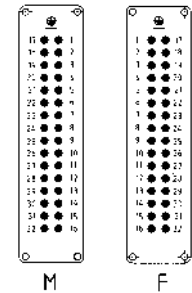
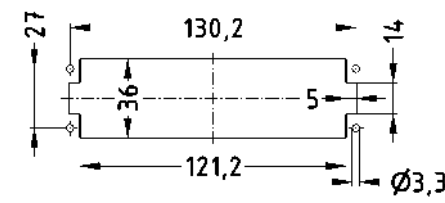
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han E®, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.14 ... 4	09 33 024 2602	09 33 024 2702	 <p>1) distance for contact max. 21 mm</p>
<p>Han E®, Screw termination, With wire protection, Contact surface: Silver plated</p> 	0.75 ... 2.5	09 33 024 2601	09 33 024 2701	 <p>1) distance for contact max. 21 mm</p>
 <p>13 ● 1    1 ● 13 14 ● 2    2 ● 14 15 ● 3    3 ● 15 16 ● 4    4 ● 16 17 ● 5    5 ● 17 18 ● 6    6 ● 18 19 ● 7    7 ● 19 20 ● 8    8 ● 20 21 ● 9    9 ● 21 22 ● 10    10 ● 22 23 ● 11    11 ● 23 24 ● 12    12 ● 24</p> <p>M                      F</p> <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out</p>				

Number of contacts

**32+**

16 A 500 V 6 kV 3

Han E/  
EE

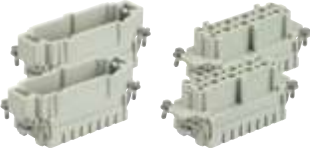
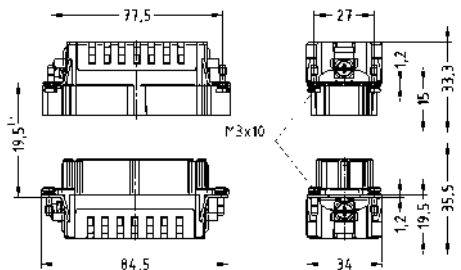
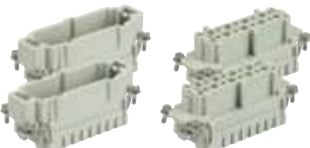
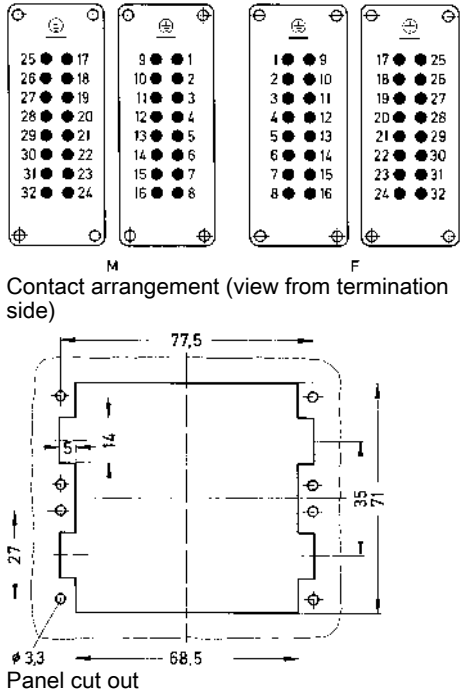
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han E®, Screw termination, With wire protection, Contact surface: Silver plated 	0.75 ... 2.5	09 33 032 2601	09 33 032 2701	 <p>1) distance for contact max. 21 mm</p>  <p>M F</p> <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out</p>

Number of contacts

32+

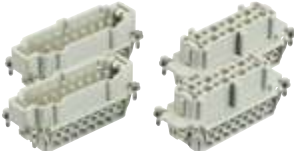
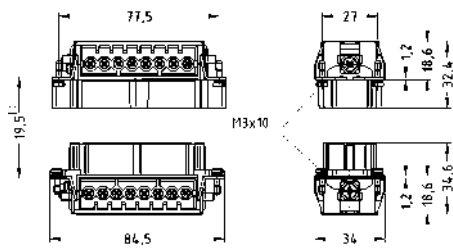
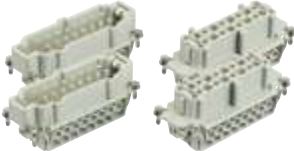
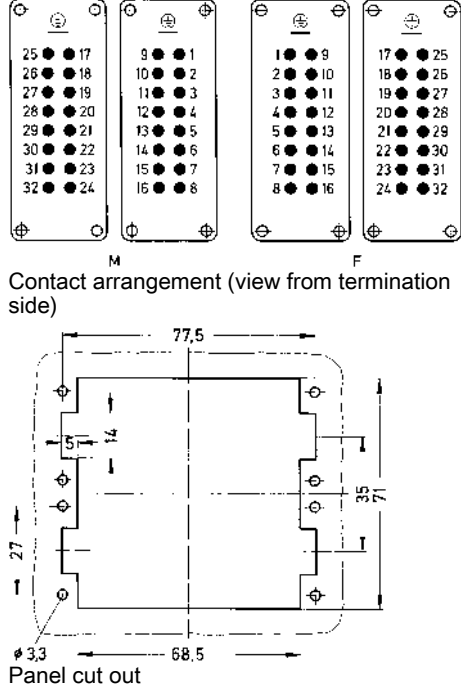
16 A 500 V 6 kV 3

Han E/  
EE

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han E®, Crimp termination, 1 ... 16</p>  <p>Please order crimp contacts separately. You need two inserts for a complete assembly!</p>	0.14 ... 4	09 33 016 2602	09 33 016 2702	 <p>1) distance for contact max. 21 mm</p>
<p>Han E®, Continuing marking, Crimp termination, 17 ... 32</p>  <p>Please order crimp contacts separately. You need two inserts for a complete assembly!</p>	0.14 ... 4	09 33 016 2612	09 33 016 2712	 <p>Contact arrangement (view from termination side)</p> <p>Panel cut out</p>



Han E/  
EE


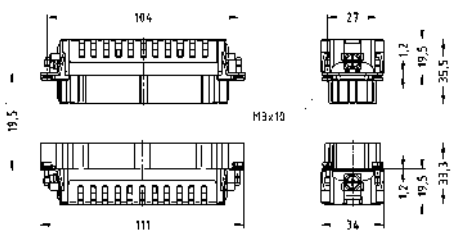

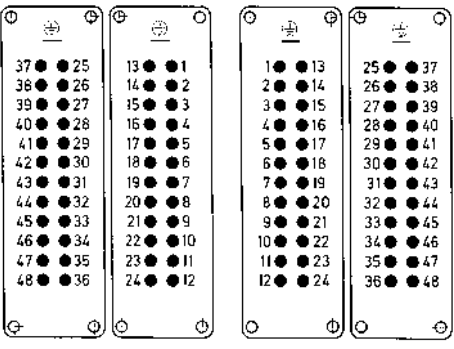
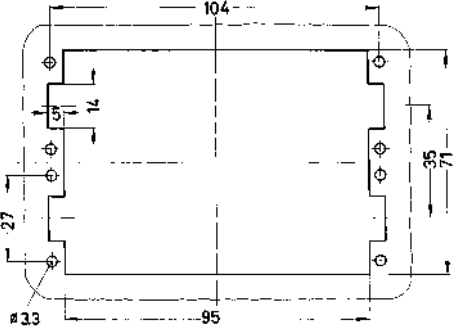
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han E®, Screw termination, With wire protection, 1 ... 16</p> <p>Contact surface: Silver plated</p>  <p>You need two inserts for a complete assembly!</p>	0.75 ... 2.5	09 33 016 2601	09 33 016 2701	 <p>1) distance for contact max. 21 mm</p>
<p>Han E®, Continuing marking, Screw termination, With wire protection, 17 ... 32</p> <p>Contact surface: Silver plated</p>  <p>You need two inserts for a complete assembly!</p>	0.75 ... 2.5	09 33 016 2611	09 33 016 2711	 <p>Contact arrangement (view from termination side)</p> <p>Panel cut out</p>

Number of contacts

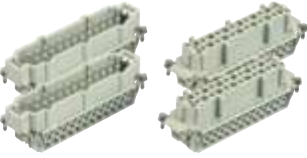
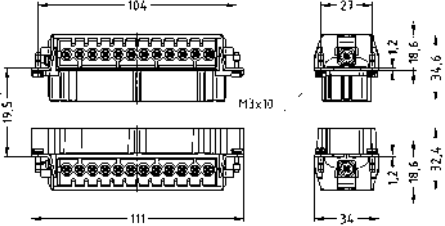
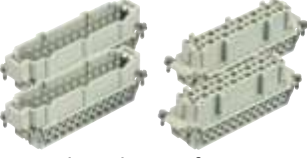
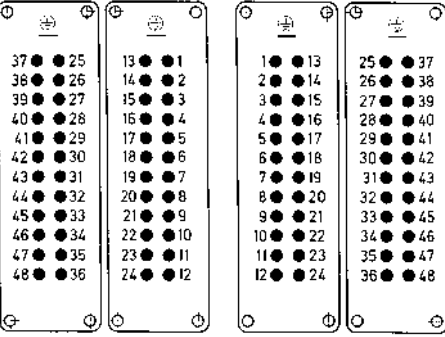
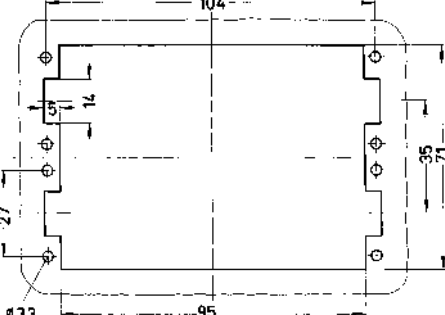
48+

16 A 500 V 6 kV 3

Han E/  
EE

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han E®, Crimp termination, 1 ... 24</p>  <p>Please order crimp contacts separately. You need two inserts for a complete assembly!</p>	0.14 ... 4	09 33 024 2602	09 33 024 2702	 <p>1) distance for contact max. 21 mm</p>
<p>Han E®, Continuing marking, Crimp termination, 25 ... 48</p>  <p>Please order crimp contacts separately. You need two inserts for a complete assembly!</p>	0.14 ... 4	09 33 024 2612	09 33 024 2712	 <p>M F</p> <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out</p>

Han E/  
EE

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han E®, Screw termination, With wire protection, 1 ... 24</p> <p>Contact surface: Silver plated</p>  <p>You need two inserts for a complete assembly!</p>	0.75 ... 2.5	09 33 024 2601	09 33 024 2701	 <p>1) distance for contact max. 21 mm</p>
<p>Han E®, Continuing marking, Screw termination, With wire protection, 25 ... 48</p> <p>Contact surface: Silver plated</p>  <p>You need two inserts for a complete assembly!</p>	0.75 ... 2.5	09 33 024 2611	09 33 024 2711	 <p>M F</p> <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out</p>

## Features

- Rapid termination technology without tools for a time saving assembly and for optimal processreliability
- Vibration-proved
- Han® ES Press: Easy bridging functionality of contacts by means of plug-in jumpers directly on the connector
- Han® ES Press: Fast realisation of potential multiplication as well as star and delta bridges
- Han® ESS: two termination points per contact

## Technical characteristics

Number of contacts	6, 10, 16, 24, 32, 48
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Rated voltage acc. to CSA	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption, compliant

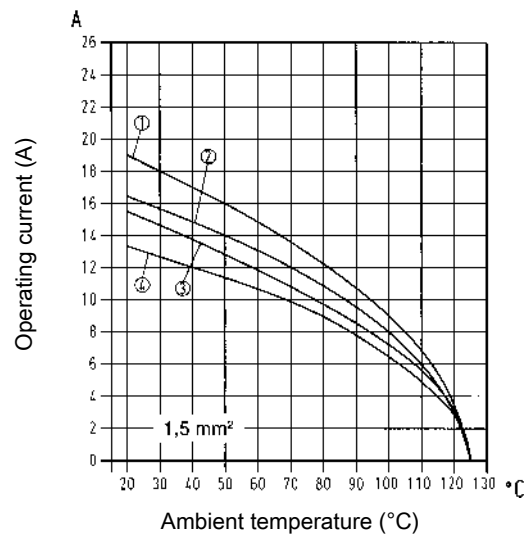
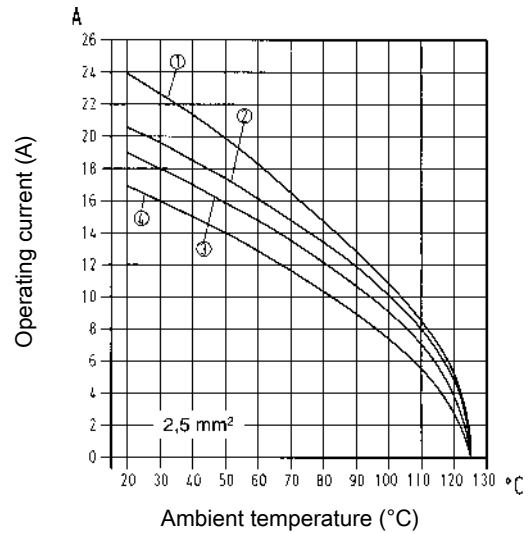
## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2

### Han® ES

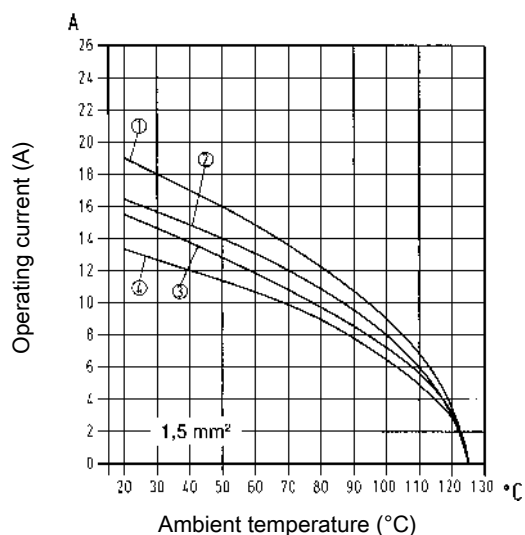
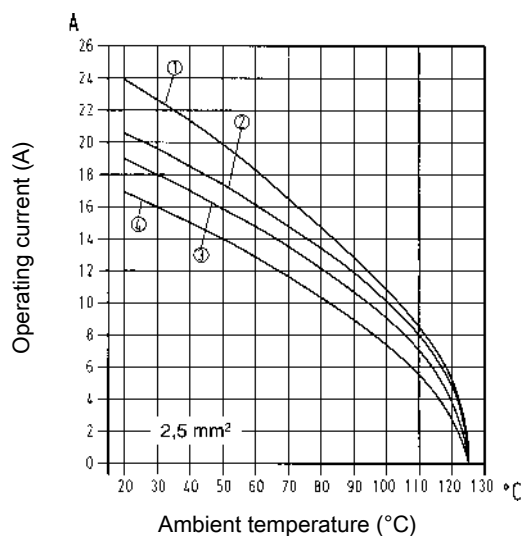


- ① Han® 6 ES
- ② Han® 10 ES
- ③ Han® 16 ES Han® 32 ES
- ④ Han® 24 ES Han® 48 ES

## Derating

Han E/  
EE

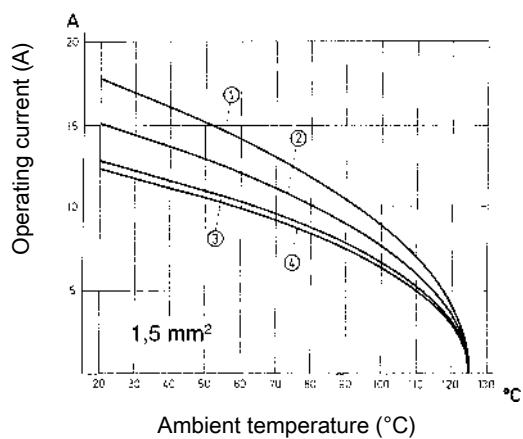
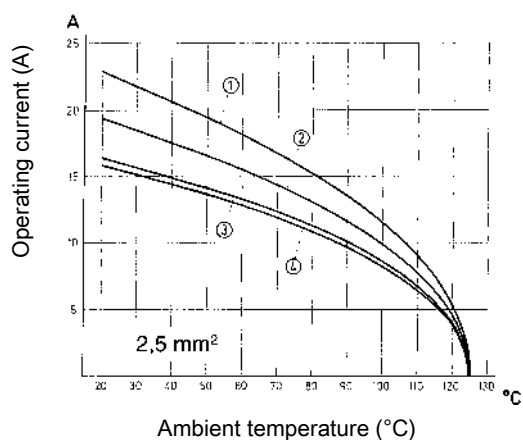
### Han® ES Press



- ① Han® 6 ES Press
- ② Han® 10 ES Press
- ③ Han® 16 ES Press Han® 32 ES Press
- ④ Han® 24 ES Press Han® 48 ES Press

## Derating

### Han® ESS



- ① Han® 6 ESS
- ② Han® 10 ESS
- ③ Han® 16 ESS Han® 32 ESS
- ④ Han® 24 ESS Han® 48 ESS

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
UL 2237 PVVA2.E318390  
CSA-C22.2 No. 182.3 PVVA8.E318390  
DNV GL  
CSA-C22.2 No. 182.3 ECBT8.E235076

## Details

Internal use in the switch cabinet in conjunction with Han-Snap® (see chapter Han 11)

Suitable for hoods/housings of series Han® B, Han® M, Han® EMC, Han® HPR, Han® Easy Hood (see chapter Han 31)

Tightening torque 0.5 Nm

Tightening torque PE screw 1.2 Nm

Number of contacts

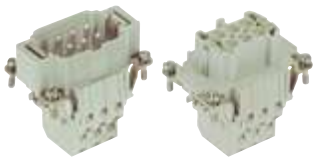
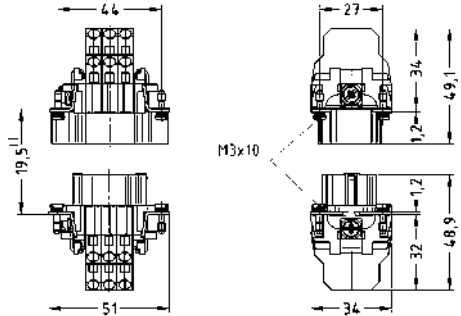
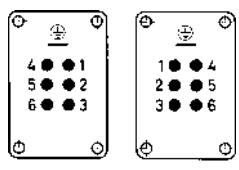
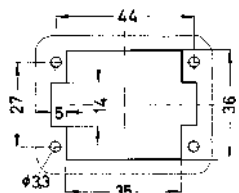
# 6+

16 A 500 V 6 kV 3

Han E/  
EE

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® ES, Cage-clamp termination, Contact surface: Silver plated</p>	0.14 ... 2.5	09 33 006 2616	09 33 006 2716	<p>1) distance for contact max. 21 mm</p>
<p>Han® ES Press, Cage-clamp termination, Contact surface: Silver plated</p> <p>Blue slide for hoods/housings high construction only</p>	0.14 ... 2.5	09 33 006 2648	09 33 006 2748	<p>Distance for contact max. 21 mm</p> <p>Contact arrangement (view from termination side)</p> <p>Panel cut out</p>

Han E/EE


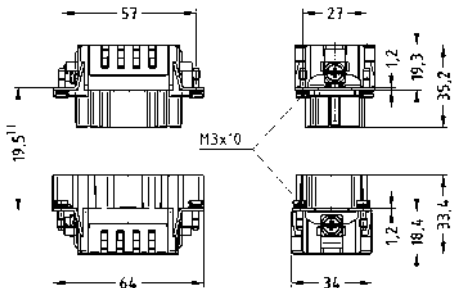

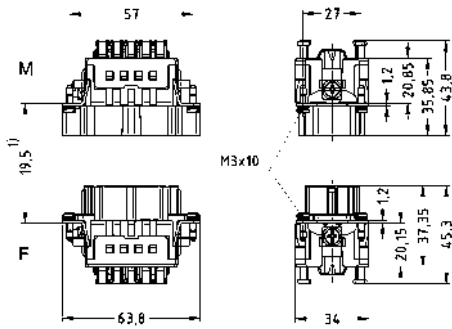
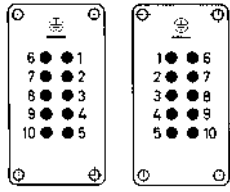
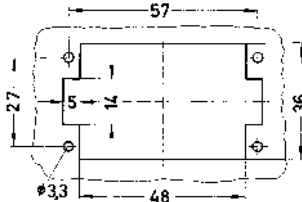
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® ESS, Cage-clamp termination, Contact surface: Silver plated</p>  <p>two terminations per contact for hoods/housings high construction only</p>	0.14 ... 2.5	09 33 006 2672	09 33 006 2772	 <p>1) distance for contact max. 21 mm</p>  <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out</p>

Number of contacts

10+


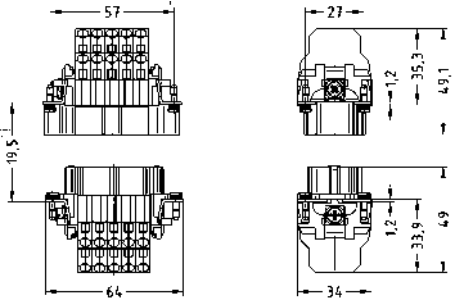
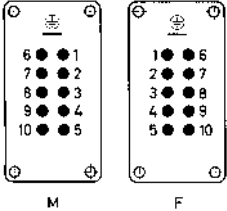
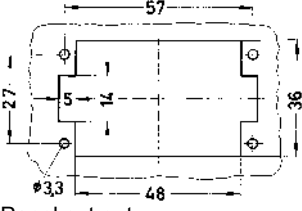
16 A 500 V 6 kV 3

Han E/  
EE

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® ES, Cage-clamp termination, Contact surface: Silver plated</p> 	0.14 ... 2.5	09 33 010 2616	09 33 010 2716	 <p>1) distance for contact max. 21 mm</p>
<p>Han® ES Press, Cage-clamp termination, Contact surface: Silver plated</p>  <p>Blue slide for hoods/housings high construction only</p>	0.14 ... 2.5	09 33 010 2648	09 33 010 2748	 <p>Distance for contact max. 21 mm</p>  <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out</p>



Han E/  
EE


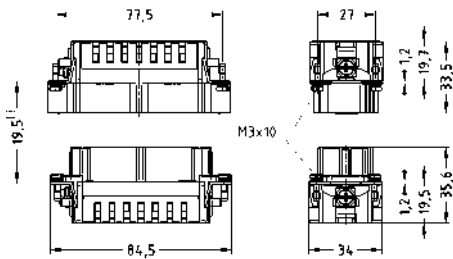
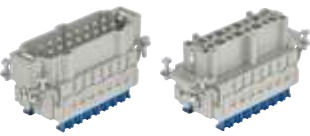
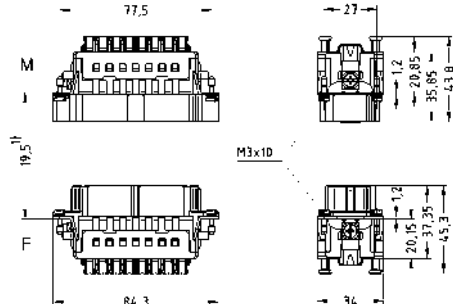
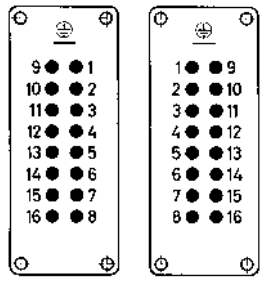
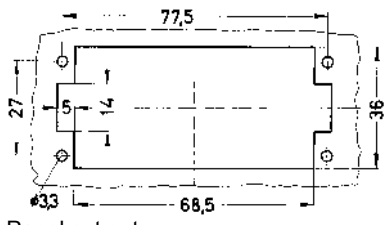
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® ESS, Cage-clamp termination, Contact surface: Silver plated</p>  <p>two terminations per contact for hoods/housings high construction only</p>	0.14 ... 2.5	09 33 010 2672	09 33 010 2772	 <p>1) distance for contact max. 21 mm</p>  <p>M F</p> <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out</p>

Number of contacts


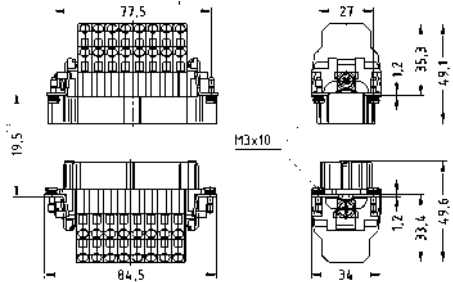
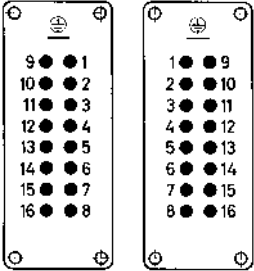
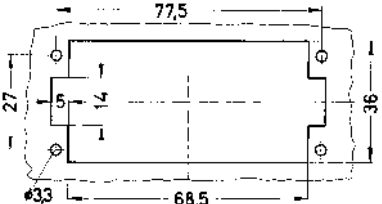
16+

16 A 500 V 6 kV 3

Han E/EE

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® ES, Cage-clamp termination, Contact surface: Silver plated</p> 	0.14 ... 2.5	09 33 016 2616	09 33 016 2716	 <p>1) distance for contact max. 21 mm</p>
<p>Han® ES Press, Cage-clamp termination, Contact surface: Silver plated</p>  <p>Blue slide for hoods/housings high construction only</p>	0.14 ... 2.5	09 33 016 2648	09 33 016 2748	 <p>Distance for contact max. 21 mm</p>  <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out</p>

Han E/EE

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® ESS, Cage-clamp termination, Contact surface: Silver plated</p>  <p>two terminations per contact for hoods/housings high construction only</p>	0.14 ... 2.5	09 33 016 2672	09 33 016 2772	 <p>1) distance for contact max. 21 mm</p>  <p>M F</p> <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out</p>

Number of contacts

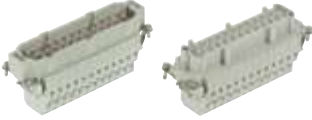
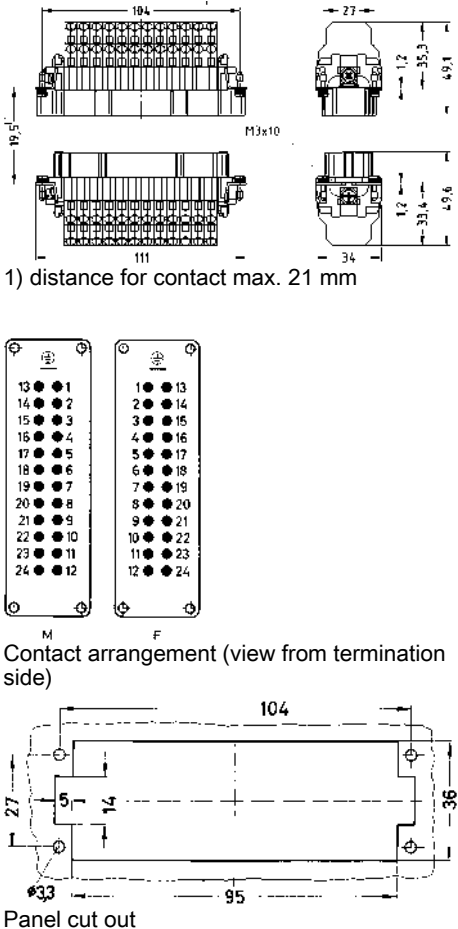
24+

16 A 500 V 6 kV 3

Han E/  
EE

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																																																																								
		Male	Female																																																																									
<p>Han® ES, Cage-clamp termination, Contact surface: Silver plated</p>	0.14 ... 2.5	09 33 024 2616	09 33 024 2716	<p>1) distance for contact max. 21 mm</p>																																																																								
<p>Han® ES Press, Cage-clamp termination, Contact surface: Silver plated</p> <p>Blue slide for hoods/housings high construction only</p>	0.14 ... 2.5	09 33 024 2648	09 33 024 2748	<p>Distance for contact max. 21 mm</p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px;"> <p>M</p> <table border="1"> <tr><td>13</td><td>●</td><td>1</td></tr> <tr><td>14</td><td>●</td><td>2</td></tr> <tr><td>15</td><td>●</td><td>3</td></tr> <tr><td>16</td><td>●</td><td>4</td></tr> <tr><td>17</td><td>●</td><td>5</td></tr> <tr><td>18</td><td>●</td><td>6</td></tr> <tr><td>19</td><td>●</td><td>7</td></tr> <tr><td>20</td><td>●</td><td>8</td></tr> <tr><td>21</td><td>●</td><td>9</td></tr> <tr><td>22</td><td>●</td><td>10</td></tr> <tr><td>23</td><td>●</td><td>11</td></tr> <tr><td>24</td><td>●</td><td>12</td></tr> </table> </div> <div style="border: 1px solid black; padding: 5px;"> <p>F</p> <table border="1"> <tr><td>1</td><td>●</td><td>13</td></tr> <tr><td>2</td><td>●</td><td>14</td></tr> <tr><td>3</td><td>●</td><td>15</td></tr> <tr><td>4</td><td>●</td><td>16</td></tr> <tr><td>5</td><td>●</td><td>17</td></tr> <tr><td>6</td><td>●</td><td>18</td></tr> <tr><td>7</td><td>●</td><td>19</td></tr> <tr><td>8</td><td>●</td><td>20</td></tr> <tr><td>9</td><td>●</td><td>21</td></tr> <tr><td>10</td><td>●</td><td>22</td></tr> <tr><td>11</td><td>●</td><td>23</td></tr> <tr><td>12</td><td>●</td><td>24</td></tr> </table> </div> </div> <p>Contact arrangement (view from termination side)</p> <p>Panel cut out</p>	13	●	1	14	●	2	15	●	3	16	●	4	17	●	5	18	●	6	19	●	7	20	●	8	21	●	9	22	●	10	23	●	11	24	●	12	1	●	13	2	●	14	3	●	15	4	●	16	5	●	17	6	●	18	7	●	19	8	●	20	9	●	21	10	●	22	11	●	23	12	●	24
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Han E/  
EE

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® ESS, Cage-clamp termination, Contact surface: Silver plated</p>  <p>two terminations per contact for hoods/housings high construction only</p>	0.14 ... 2.5	09 33 024 2672	09 33 024 2772	 <p>1) distance for contact max. 21 mm</p> <p>Contact arrangement (view from termination side)</p> <p>Panel cut out</p>


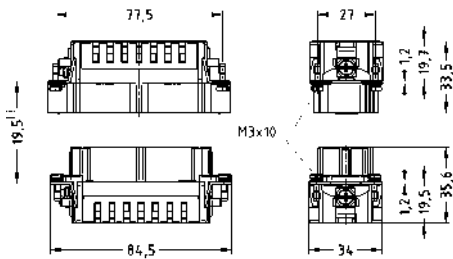

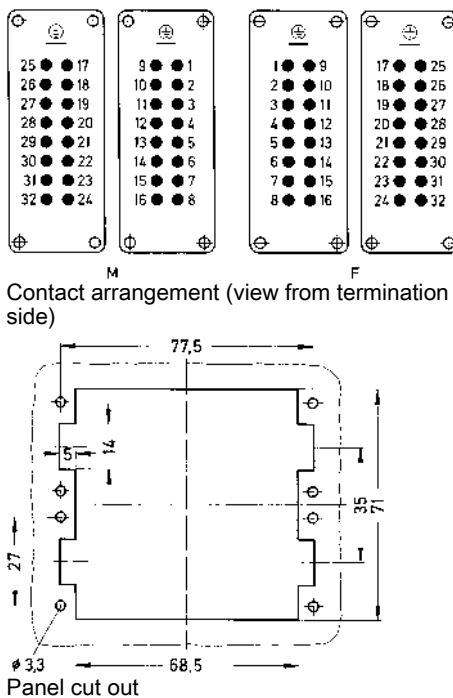
Han  
03  
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22

Number of contacts


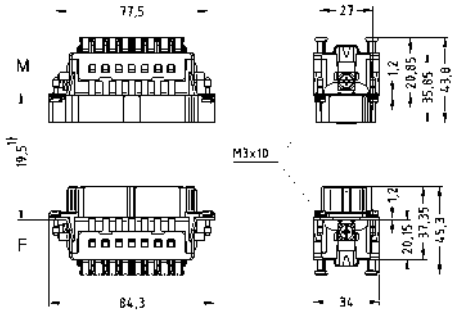

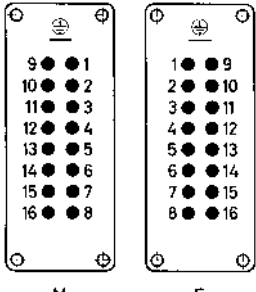
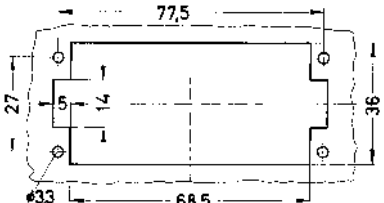
32+

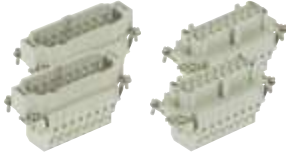
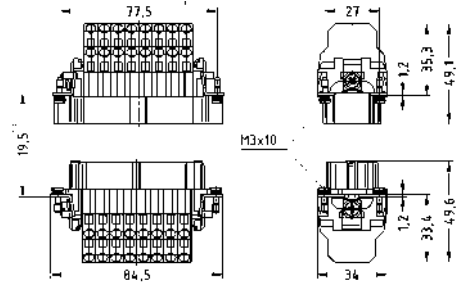
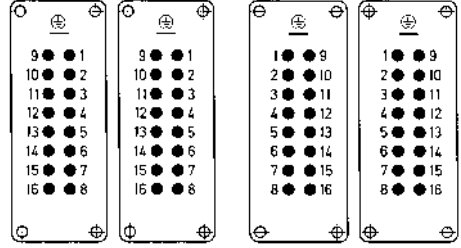
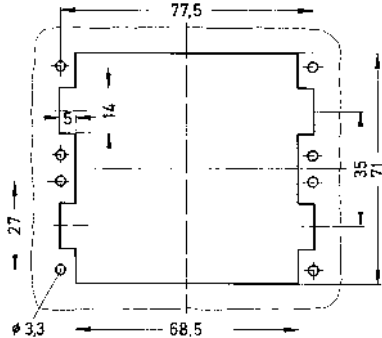
16 A 500 V 6 kV 3

Han E/  
EE

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® ES, Cage-clamp termination, 1 ... 16 Contact surface: Silver plated</p>  <p>You need two inserts for a complete assembly!</p>	0.14 ... 2.5	09 33 016 2616	09 33 016 2716	 <p>1) distance for contact max. 21 mm</p>
<p>Han® ES, Continuing marking, Cage-clamp termination, 17 ... 32 Contact surface: Silver plated</p>  <p>You need two inserts for a complete assembly!</p>	0.14 ... 2.5	09 33 016 2626	09 33 016 2726	 <p>Contact arrangement (view from termination side)</p> <p>Panel cut out</p>

Han E/  
EE

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® ES Press, Cage-clamp termination, 1 ... 16</p> <p>Contact surface: Silver plated</p>  <p>Blue slide for hoods/housings high construction only You need two inserts for a complete assembly!</p>	0.14 ... 2.5	09 33 016 2648	09 33 016 2748	 <p>Distance for contact max. 21 mm</p>
<p>Han® ES Press, Continuing marking, Cage-clamp termination, 17 ... 32</p> <p>Contact surface: Silver plated</p>  <p>Blue slide for hoods/housings high construction only You need two inserts for a complete assembly!</p>	0.14 ... 2.5	09 33 016 2688	09 33 016 2788	 <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out</p>

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® ESS, Cage-clamp termination, 1 ... 16</p> <p>Contact surface: Silver plated</p>  <p>two terminations per contact for hoods/housings high construction only You need two inserts for a complete assembly!</p>	0.14 ... 2.5	09 33 016 2672	09 33 016 2772	 <p>1) distance for contact max. 21 mm</p>  <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out</p>

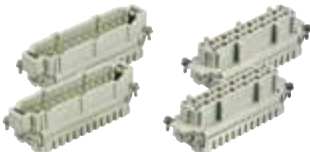
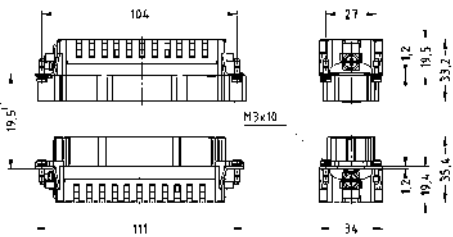
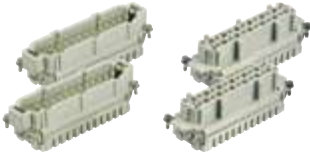
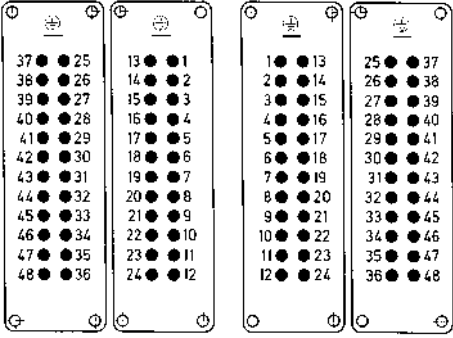
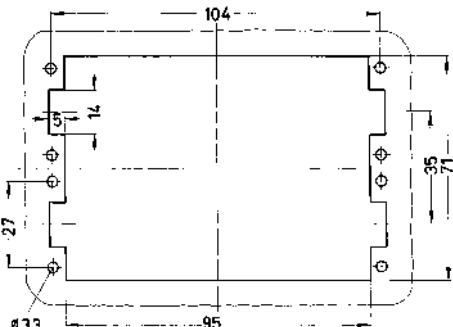


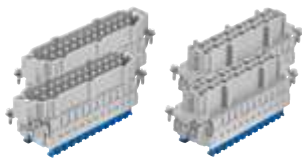
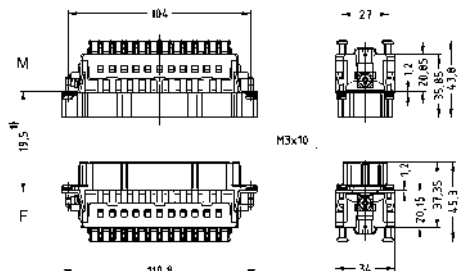
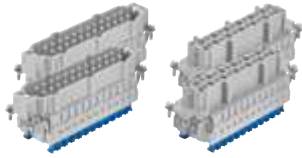
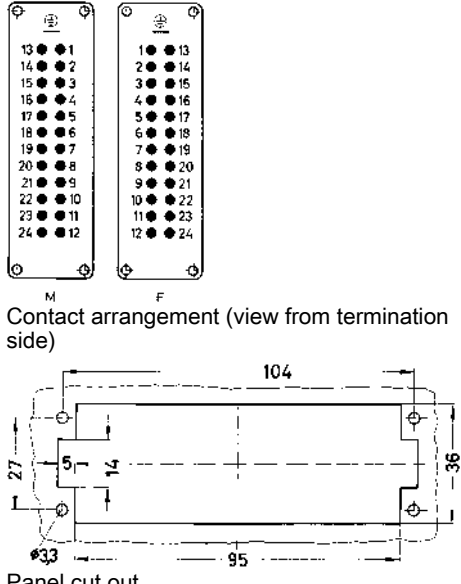
Number of contacts

**48+**

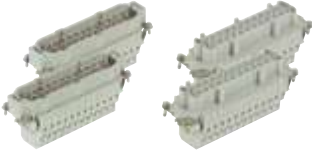
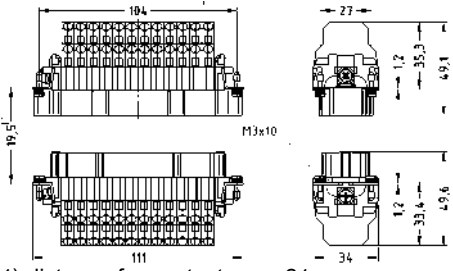
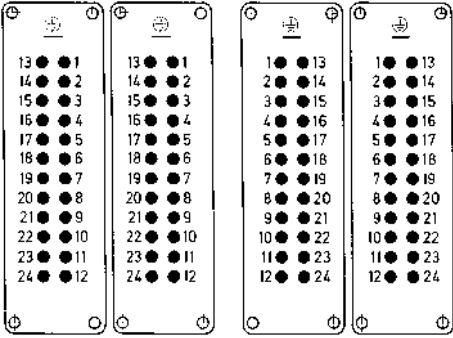
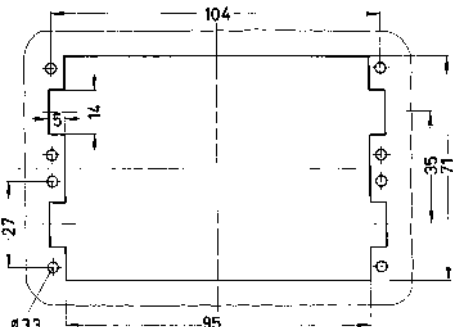
16 A 500 V 6 kV 3

Han E/  
EE

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® ES, Cage-clamp termination, 1 ... 24 Contact surface: Silver plated</p>  <p>You need two inserts for a complete assembly!</p>	0.14 ... 2.5	09 33 024 2616	09 33 024 2716	 <p>1) distance for contact max. 21 mm</p>
<p>Han® ES, Continuing marking, Cage-clamp termination, 25 ... 48 Contact surface: Silver plated</p>  <p>You need two inserts for a complete assembly!</p>	0.14 ... 2.5	09 33 024 2626	09 33 024 2726	 <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out</p>

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® ES Press, Cage-clamp termination, 1 ... 24</p> <p>Contact surface: Silver plated</p>  <p>Blue slide for hoods/housings high construction only You need two inserts for a complete assembly!</p>	0.14 ... 2.5	09 33 024 2648	09 33 024 2748	 <p>Distance for contact max. 21 mm</p>
<p>Han® ES Press, Continuing marking, Cage-clamp termination, 25 ... 48</p> <p>Contact surface: Silver plated</p>  <p>Blue slide for hoods/housings high construction only You need two inserts for a complete assembly!</p>	0.14 ... 2.5	09 33 024 2688	09 33 024 2788	 <p>Panel cut out</p>

Han E/EE

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® ESS, Cage-clamp termination, 1 ... 24</p> <p>Contact surface: Silver plated</p>  <p>two terminations per contact for hoods/housings high construction only You need two inserts for a complete assembly!</p>	0.14 ... 2.5	09 33 024 2672	09 33 024 2772	 <p>1) distance for contact max. 21 mm</p>  <p>M F</p> <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out</p>

16 A 500 V 6 kV 3



Han E/  
EE

## Technical characteristics







Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 1 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 5$
Material (contacts)	Copper alloy
Material (accessories)	Polyamide (PA)

## Technical characteristics

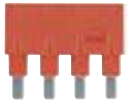
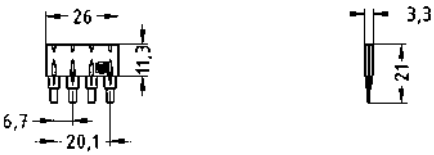
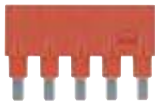

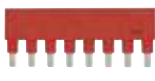
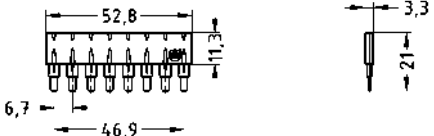

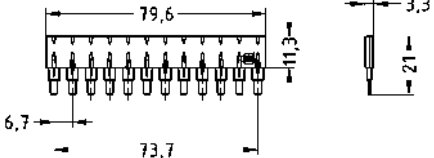
Colour (accessories)	RAL 3018 (strawberry red), RAL 5012 (light blue), RAL 5004 (black blue)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Details

When using plug-in jumpers within Han® ES Press hoods of high construction must be used.

Identification		Part number	Drawing (dimensions in mm)	
Han® ES Press, Plug-in jumper, 2x 1, Transverse, Contact surface: Tin plated		Black Blue Red	09 33 000 9822 09 33 000 9821 09 33 000 9820	
Han® ES Press, Plug-in jumper, 1x 2, Longitudinal, Contact surface: Tin plated		Black Blue Red	09 33 000 9852 09 33 000 9841 09 33 000 9830	
Han® ES Press, Plug-in jumper, 1x 3, Longitudinal, Contact surface: Tin plated		Black Blue Red	09 33 000 9853 09 33 000 9842 09 33 000 9831	

Han E/  
EE

Identification	Part number	Drawing (dimensions in mm)
<p>Han® ES Press, Plug-in jumper, 1x 4, Longitudinal, Contact surface: Tin plated</p> 	<p>Black Blue Red</p> <p>09 33 000 9854 09 33 000 9843 09 33 000 9832</p>	
<p>Han® ES Press, Plug-in jumper, 1x 5, Longitudinal, Contact surface: Tin plated</p> 	<p>Black Blue Red</p> <p>09 33 000 9855 09 33 000 9844 09 33 000 9833</p>	
<p>Han® ES Press, Plug-in jumper, 1x 8, Longitudinal, Contact surface: Tin plated</p> 	<p>Black Blue Red</p> <p>09 33 000 9858 09 33 000 9847 09 33 000 9836</p>	
<p>Han® ES Press, Plug-in jumper, 1x 12, Longitudinal, Contact surface: Tin plated</p> 	<p>Black Blue Red</p> <p>09 33 000 9862 09 33 000 9851 09 33 000 9840</p>	

## Features

- Higher density of crimping contacts
- Coded insert
- Gold and silver contacts available

## Technical characteristics

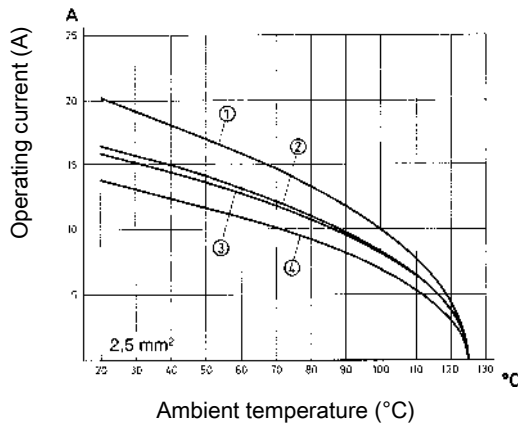
Number of contacts	10, 18, 32, 46, 64, 92
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Rated voltage acc. to CSA	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Derating

### Current carrying capacity

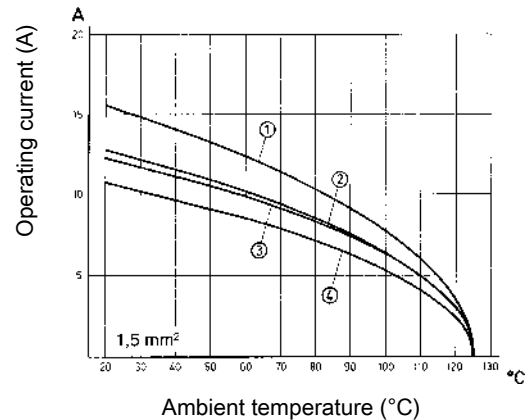
The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Han® 10 EE
- ② Han® 18 EE
- ③ Han® 32 EE Han® 64 EE
- ④ Han® 46 EE Han® 92 EE

## Derating



- ① Han® 10 EE
- ② Han® 18 EE
- ③ Han® 32 EE Han® 64 EE
- ④ Han® 46 EE Han® 92 EE

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 UL 2237 PVVA2.E318390  
 CSA-C22.2 No. 182.3 PVVA8.E318390  
 DNV GL

## Details

Internal use in the switch cabinet in conjunction with Han-Snap® (see chapter Han 11)

Suitable for hoods/housings of series Han® B, Han® M, Han® EMC, Han® HPR, Han® Easy Hood (see chapter Han 31)

Tightening torque 0.5 Nm

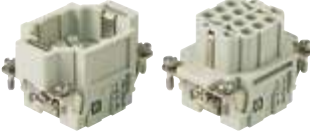
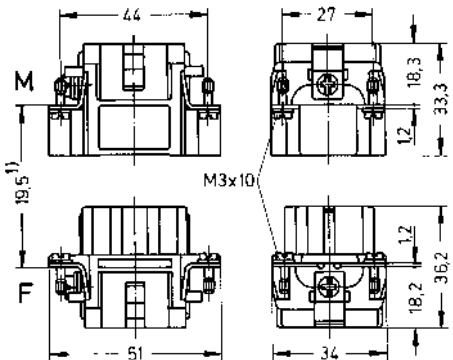
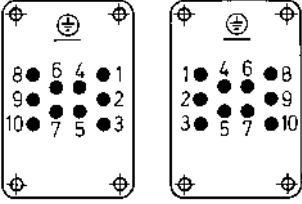
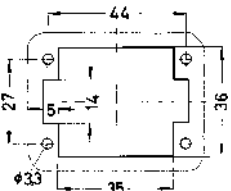
Tightening torque PE screw 1.2 Nm

Number of contacts

**10+**

16 A 500 V 6 kV 3

Han E/  
EE


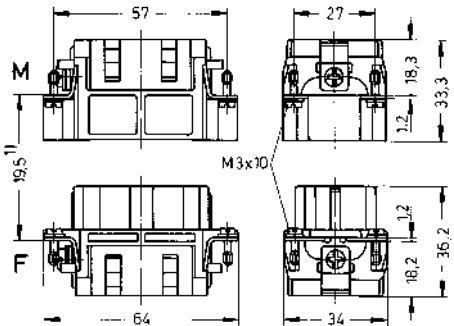
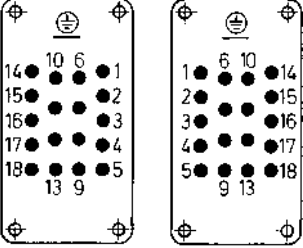
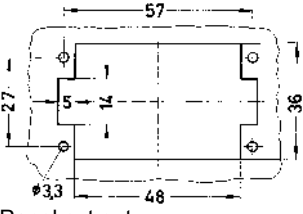
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® EE, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.14 ... 4	09 32 010 3001	09 32 010 3101	 <p>1) distance for contact max. 21 mm</p>  <p>M F</p> <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out</p>

Number of contacts

18+

16 A 500 V 6 kV 3

Han E/  
EE

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® EE, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.14 ... 4	09 32 018 3001	09 32 018 3101	 <p>1) distance for contact max. 21 mm</p>  <p>M F Contact arrangement (view from termination side)</p>  <p>Panel cut out</p>


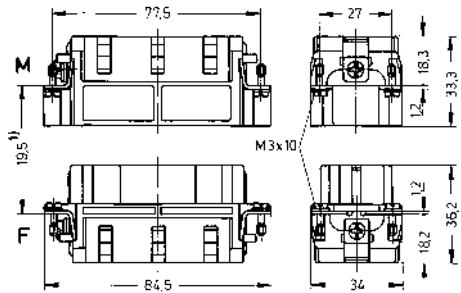
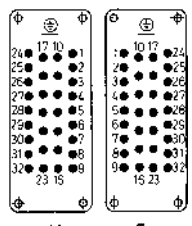
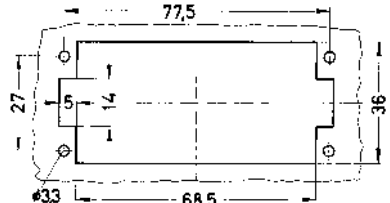


Number of contacts

**32+**

16 A 500 V 6 kV 3

Han E/  
EE


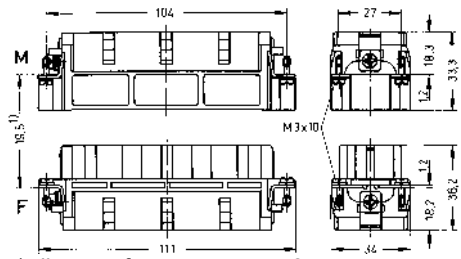
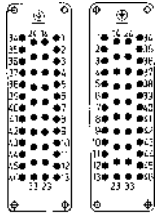
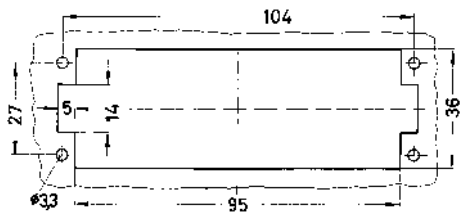
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han® EE, Crimp termination  <p>Please order crimp contacts separately.</p>	0.14 ... 4	09 32 032 3001	09 32 032 3101	 <p>1) distance for contact max. 21 mm</p>  <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out</p>

Number of contacts

**46+**

16 A 500 V 6 kV 3

Han E/  
EE


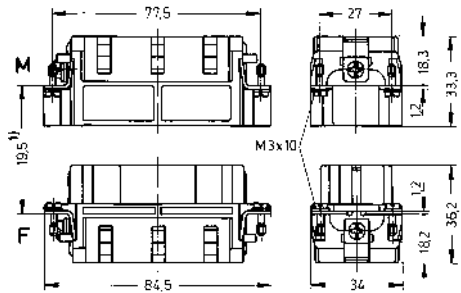

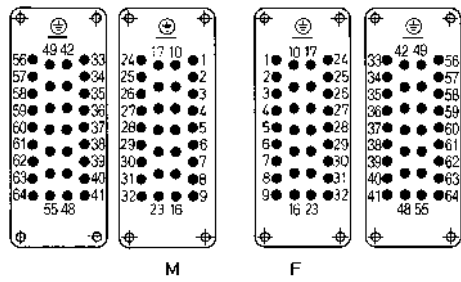
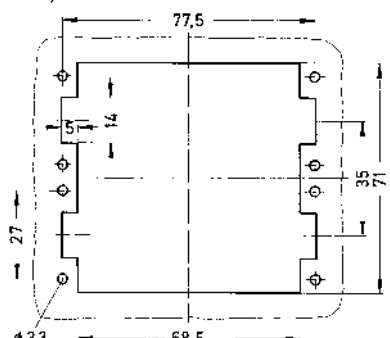
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® EE, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.14 ... 4	09 32 046 3001	09 32 046 3101	 <p>1) distance for contact max. 21 mm</p>  <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out</p>

Number of contacts

64+

16 A 500 V 6 kV 3

Han E/  
EE


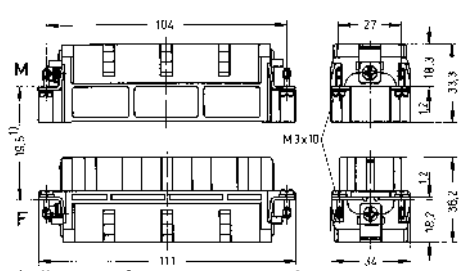

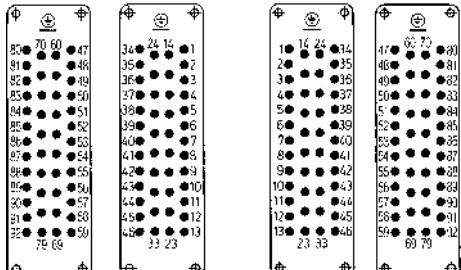
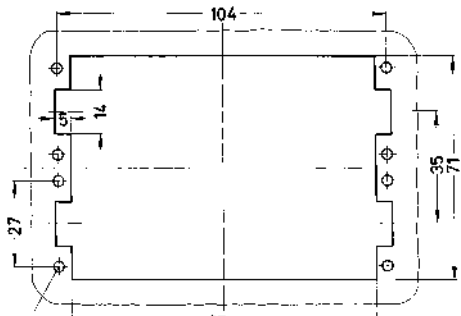
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® EE, Crimp termination, 1 ... 32</p>  <p>Please order crimp contacts separately. You need two inserts for a complete assembly!</p>	0.14 ... 4	09 32 032 3001	09 32 032 3101	 <p>1) distance for contact max. 21 mm</p>
<p>Han® EE, Continuing marking, Crimp termination, 33 ... 64</p>  <p>Please order crimp contacts separately. You need two inserts for a complete assembly!</p>	0.14 ... 4	09 32 032 3011	09 32 032 3111	 <p>1 10 17 24 33 42 49 56 2 11 18 25 34 43 50 57 3 12 19 26 35 44 51 58 4 13 20 27 36 45 52 59 5 14 21 28 37 46 53 60 6 15 22 29 38 47 54 61 7 16 23 30 39 48 55 62 8 17 24 31 40 49 56 63 9 18 25 32 41 50 57 64 55 48 41 32 23 16</p> <p>M F</p> <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out</p>

Number of contacts

92+

16 A 500 V 6 kV 3

Han E/  
EE

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® EE, Crimp termination, 1 ... 46</p>  <p>Please order crimp contacts separately. You need two inserts for a complete assembly!</p>	0.14 ... 4	09 32 046 3001	09 32 046 3101	 <p>1) distance for contact max. 21 mm</p>
<p>Han® EE, Continuing marking, Crimp termination, 47 ... 92</p>  <p>Please order crimp contacts separately. You need two inserts for a complete assembly!</p>	0.14 ... 4	09 32 046 3011	09 32 046 3111	 <p>M F</p> <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out</p>

## Features

- Highest density of crimping contacts
- Coded insert
- Gold and silver contacts available

## Technical characteristics

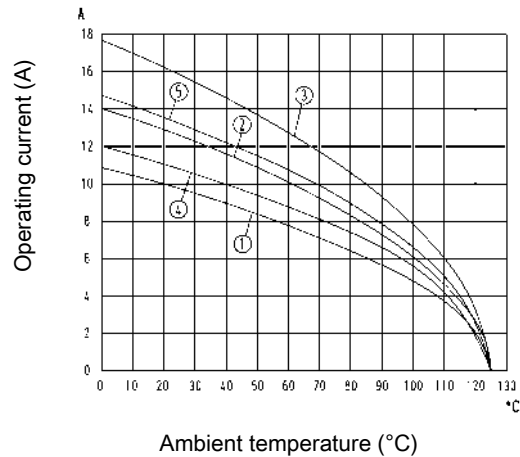
Number of contacts	40, 64
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Insulation resistance	$>10^{10} \Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Han® 64 EEE / 1.5 mm<sup>2</sup>
- ② Han® 64 EEE / 2.5 mm<sup>2</sup>
- ③ Han® 64 EEE / 4 mm<sup>2</sup>
- ④ Han® 40 EEE / 1.5 mm<sup>2</sup>
- ⑤ Han® 40 EEE / 2.5 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076

## Details

Internal use in the switch cabinet in conjunction with Han-Snap® (see chapter Han 11)

Suitable for hoods/housings of series Han® B, Han® M, Han® EMC, Han® HPR, Han® Easy Hood (see chapter Han 31)

Tightening torque 0.5 Nm


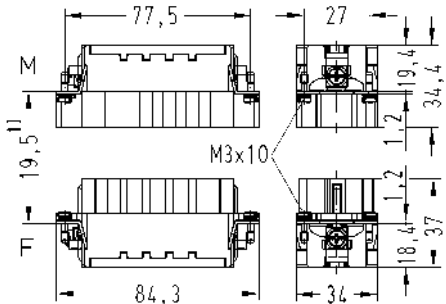
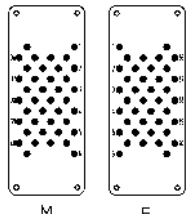
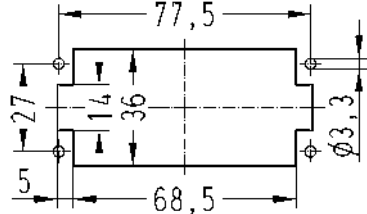
Tightening torque PE screw 1.2 Nm

Number of contacts

40+

16 A 500 V 6 kV 3

Han E/  
EE


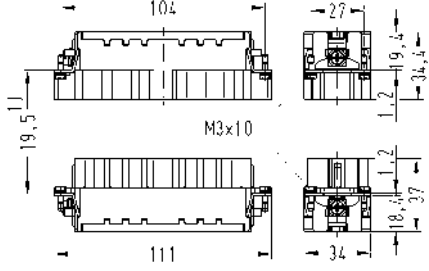
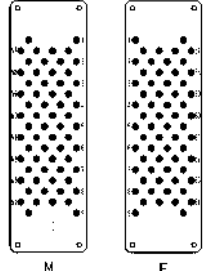
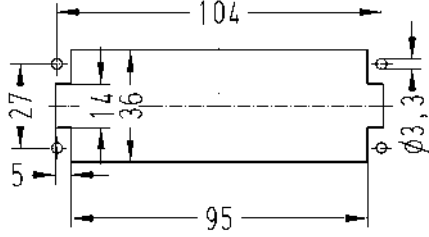
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han® EEE, Crimp termination   Please order crimp contacts separately.	0.14 ... 4	09 32 040 3001	09 32 040 3101	 1) distance for contact max. 21 mm   Contact arrangement (view from termination side)   Panel cut out

Number of contacts

**64+**

16 A 500 V 6 kV 3

Han E/  
EE

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han® EEE, Crimp termination  <p>Please order crimp contacts separately.</p>	0.14 ... 4	09 32 064 3001	09 32 064 3101	 <p>1) distance for contact max. 21 mm</p>  <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out</p>

## Technical characteristics

Contact resistance	≤1 mΩ
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
RoHS	compliant with exemption

## Specifications and approvals

EN 60664-1  
IEC 61984

## Details


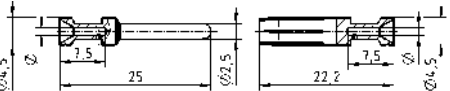

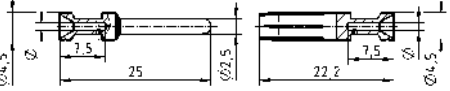
**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.


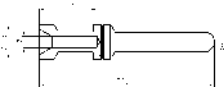

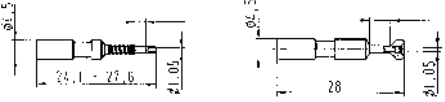

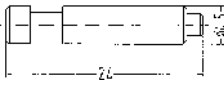
### Coding pin

Use of the coding pin prevents incorrect mating to other connectors of the same type. The male pin should be omitted from the opposing cavity in the male insert.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																		
		Male	Female																			
Han E®, Crimp contact, Contact surface: Silver plated  	0.14 ... 0.37	09 33 000 6127	09 33 000 6227	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm<sup>2</sup> AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar</p> <p>Stripping length 7.5 mm</p>	Conductor cross-section	Identification	0.14-0.37 mm <sup>2</sup> AWG 26-22	no groove	0.5 mm <sup>2</sup> AWG 20	no groove	0.75 mm <sup>2</sup> AWG 18	1 groove*	1 mm <sup>2</sup> AWG 18	1 groove	1.5 mm <sup>2</sup> AWG 16	2 groove	2.5 mm <sup>2</sup> AWG 14	3 groove	3 mm <sup>2</sup> AWG 12	wide groove	4 mm <sup>2</sup> AWG 12	no groove
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	2.5 mm <sup>2</sup> AWG 14	3 groove																				
	3 mm <sup>2</sup> AWG 12	wide groove																				
	4 mm <sup>2</sup> AWG 12	no groove																				
0.5	09 33 000 6121	09 33 000 6220																				
0.75	09 33 000 6114	09 33 000 6214																				
1	09 33 000 6105	09 33 000 6205																				
1.5	09 33 000 6104	09 33 000 6204																				
2.5	09 33 000 6102	09 33 000 6202																				
3	09 33 000 6106	09 33 000 6206																				
4	09 33 000 6107	09 33 000 6207																				
Han E®, Crimp contact, Contact surface: Gold plated  	0.14 ... 0.37	09 33 000 6117	09 33 000 6217	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm<sup>2</sup> AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar</p> <p>Stripping length 7.5 mm</p>	Conductor cross-section	Identification	0.14-0.37 mm <sup>2</sup> AWG 26-22	no groove	0.5 mm <sup>2</sup> AWG 20	no groove	0.75 mm <sup>2</sup> AWG 18	1 groove*	1 mm <sup>2</sup> AWG 18	1 groove	1.5 mm <sup>2</sup> AWG 16	2 groove	2.5 mm <sup>2</sup> AWG 14	3 groove	3 mm <sup>2</sup> AWG 12	wide groove	4 mm <sup>2</sup> AWG 12	no groove
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	2.5 mm <sup>2</sup> AWG 14	3 groove																				
	3 mm <sup>2</sup> AWG 12	wide groove																				
	4 mm <sup>2</sup> AWG 12	no groove																				
0.5	09 33 000 6122	09 33 000 6222																				
0.75	09 33 000 6115	09 33 000 6215																				
1	09 33 000 6118	09 33 000 6218																				
1.5	09 33 000 6116	09 33 000 6216																				
2.5	09 33 000 6123	09 33 000 6223																				
4	09 33 000 6119	09 33 000 6221																				



Han E/  
EE

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)												
		Male	Female													
Han E®, Crimp contact, Relay contact, Contact surface: Silver plated 	0.75 ... 1 1.5 2.5	09 33 000 6109 09 33 000 6110 09 33 000 6111		 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.75-1 mm<sup>2</sup> AWG 18</td> <td>1.45 mm</td> <td>7.5 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>7.5 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>7.5 mm</td> </tr> </tbody> </table>	Conductor cross-section	ø	Stripping length	0.75-1 mm <sup>2</sup> AWG 18	1.45 mm	7.5 mm	1.5 mm <sup>2</sup> AWG 16	1.75 mm	7.5 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	7.5 mm
Conductor cross-section	ø	Stripping length														
0.75-1 mm <sup>2</sup> AWG 18	1.45 mm	7.5 mm														
1.5 mm <sup>2</sup> AWG 16	1.75 mm	7.5 mm														
2.5 mm <sup>2</sup> AWG 14	2.25 mm	7.5 mm														
FO contact, for 1 mm plastic fibre 		20 10 001 3311	20 10 001 3321	 <p>Crimp zone</p>												
Han E®, Han® EE, Han® EEE, Coding pin  <p>for crimp inserts only                      With loss of one contact</p>			09 33 000 9954													

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Han  
Hv E

Han  
Hv E

## Standard Hoods/Housings Han<sup>®</sup> B

Suitable for  
Han<sup>®</sup> Hv ES cage-clamp terminal  
and Han Hv E<sup>®</sup> crimp terminal

Coding bar



## Special hood/housing Han Hv E<sup>®</sup>

Suitable for  
Han Hv E<sup>®</sup> screw terminal

Coding Han Hv E<sup>®</sup>

Isolation  
to increase the  
electric strength



## Features

- Designed for application up to 830 V
- Available in multiple termination techniques

## Technical characteristics

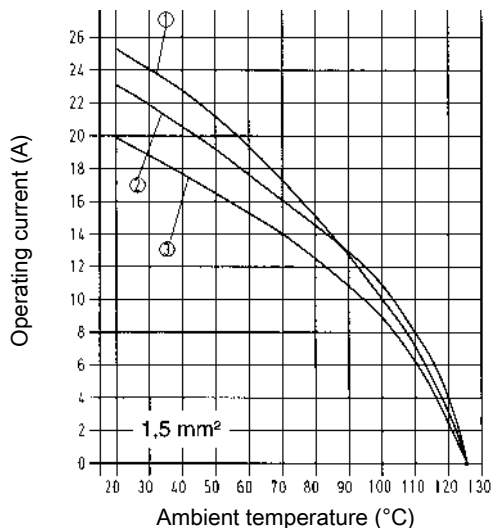
Number of contacts	3, 6, 10, 12, 20
Additional contacts	+ 2 additional relay contacts, + 4 additional relay contacts
Rated current	16 A
Rated voltage	830 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Rated voltage acc. to CSA	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 1 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

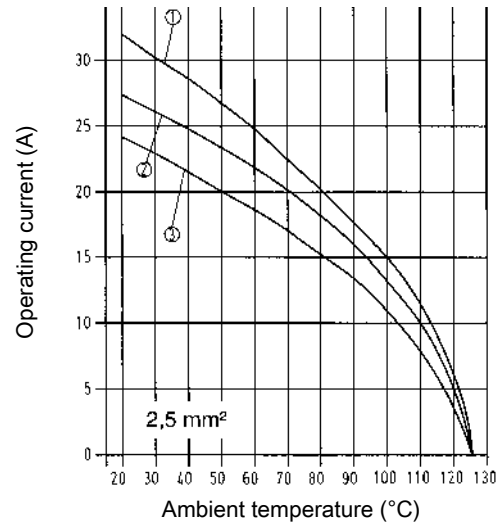
The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Han® 3 Hv E
- ② Han® 6 / 12 Hv E
- ③ Han® 10 / 16 / 20 / 32 Hv E

## Derating



- ① Han® 3 Hv E
- ② Han® 6 / 12 Hv E
- ③ Han® 10 / 16 / 20 / 32 Hv E

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076

## Details

Han Hv E® screw requires special Han Hv E® housings

Tightening torque 0.5 Nm

Tightening torque PE screw 1.2 Nm

Number of contacts

# 3+

16 A 830 V 8 kV 3  
+ 2 additional relay contacts

Han  
Hv E


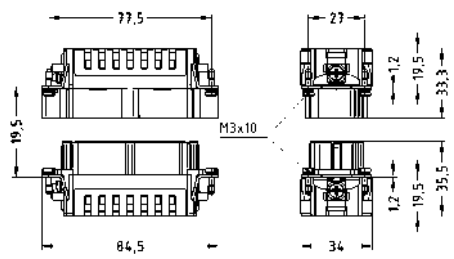

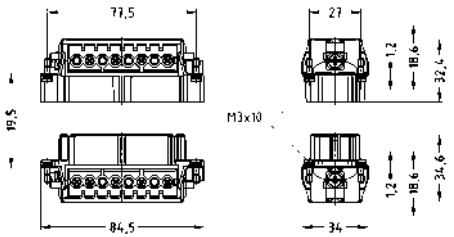
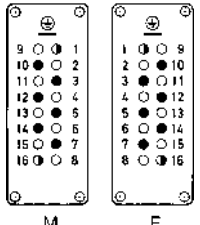
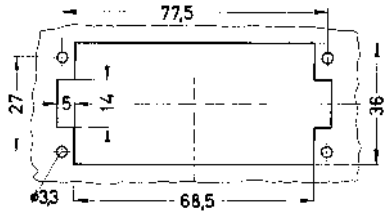
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han Hv E®, Crimp termination</p> <p>Please order crimp contacts separately.</p>	0.5 ... 4	09 34 003 2602	09 34 003 2702	
<p>Han Hv E®, Screw termination, With wire protection, Contact surface: Silver plated</p>	0.75 ... 2.5	09 34 003 2601	09 34 003 2701	 <p>M F</p> <p>Contact arrangement (view from termination side) Han® 3 Hv E ♦ Power contacts ● Relay contact ○ Without contact</p> <p>Panel cut out for use without Hoods/Housings</p>

Number of contacts

# 6+

16 A 830 V 8 kV 3  
+ 2 additional relay contacts

Han  
Hv E

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han Hv E®, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.5 ... 4	09 34 006 2602	09 34 006 2702	
<p>Han Hv E®, Screw termination, With wire protection, Contact surface: Silver plated</p> 	0.75 ... 2.5	09 34 006 2601	09 34 006 2701	  <p>M                      F</p> <p>Contact arrangement (view from termination side) Han® 6 Hv E</p> <ul style="list-style-type: none"> <li>◆ Power contacts</li> <li>● Relay contact</li> <li>○ Without contact</li> </ul>  <p>Panel cut out for use without Hoods/Housings</p>

Number of contacts

# 10+

16 A 830 V 8 kV 3  
+ 2 additional relay contacts

Han  
Hv E

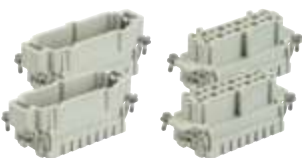
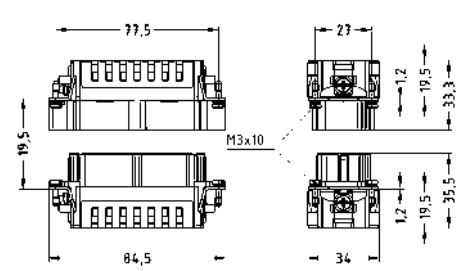

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han Hv E®, Crimp termination</p> <p>Please order crimp contacts separately.</p>	0.5 ... 4	09 34 010 2602	09 34 010 2702	<p>M      F</p> <p>Contact arrangement (view from termination side) Han® 10 Hv E</p> <ul style="list-style-type: none"> <li>◆ Power contacts</li> <li>● Relay contact</li> <li>○ Without contact</li> </ul> <p>Panel cut out for use without Hoods/Housings</p>
<p>Han Hv E®, Screw termination, With wire protection, Contact surface: Silver plated</p>	0.75 ... 2.5	09 34 010 2601	09 34 010 2701	

Number of contacts

# 12+

16 A 830 V 8 kV 3  
+ 4 additional relay contacts

Han  
Hv E

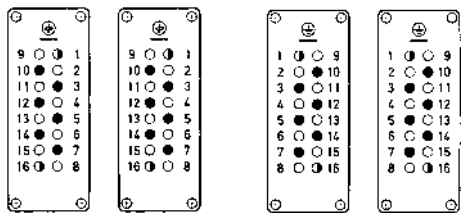
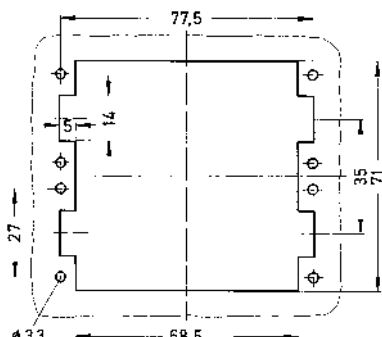
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han Hv E®, Crimp termination</p>  <p>Please order crimp contacts separately. You need two inserts for a complete assembly!</p>	0.5 ... 4	09 34 006 2602	09 34 006 2702	
<p>Han Hv E®, Screw termination, With wire protection, Contact surface: Silver plated</p>  <p>You need two inserts for a complete assembly!</p>	0.75 ... 2.5	09 34 006 2601	09 34 006 2701	

**M** **F**

Contact arrangement (view from termination side)

Han® 12 Hv E

- ◆ Power contacts
- Relay contact
- Without contact

Panel cut out  
for use without Hoods/Housings



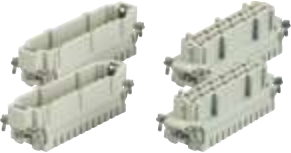
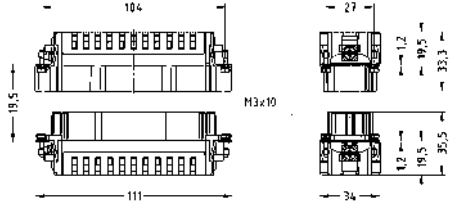
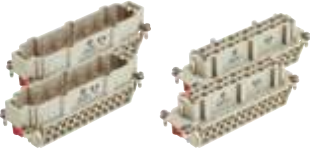
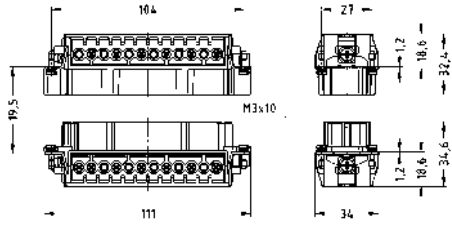
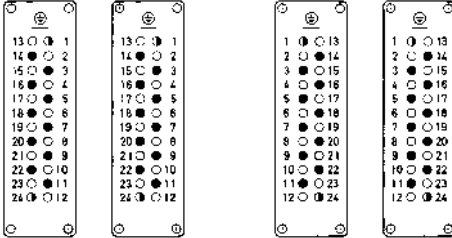
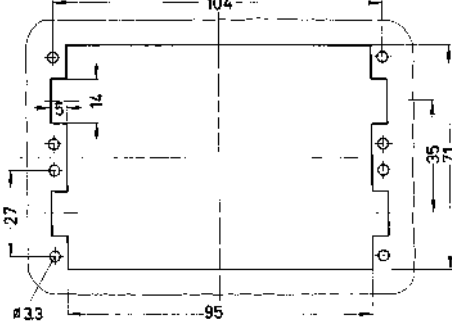


Number of contacts

# 20+

16 A 830 V 8 kV 3  
+ 4 additional relay contacts

Han  
Hv E

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han Hv E®, Crimp termination</p>  <p>Please order crimp contacts separately. You need two inserts for a complete assembly!</p>	0.5 ... 4	09 34 010 2602	09 34 010 2702	
<p>Han Hv E®, Screw termination, With wire protection, Contact surface: Silver plated</p>  <p>You need two inserts for a complete assembly!</p>	0.75 ... 2.5	09 34 010 2601	09 34 010 2701	  <p><b>M</b> <b>F</b></p> <p>Contact arrangement (view from termination side) Han® 20 Hv E</p> <ul style="list-style-type: none"> <li>◆ Power contacts</li> <li>● Relay contact</li> <li>○ Without contact</li> </ul>  <p>Panel cut out for use without Hoods/Housings</p>

## Features

- Designed for application up to 690 V
- No special tools required

## Technical characteristics

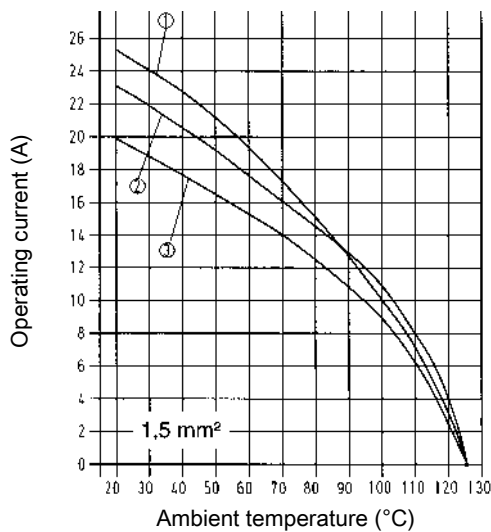
Number of contacts	16, 32
Additional contacts	+ 2 additional relay contacts, + 4 additional relay contacts
Rated current	16 A
Rated voltage conductor-earth	400 V
Rated voltage conductor-conductor	690 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Rated voltage acc. to CSA	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 1 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

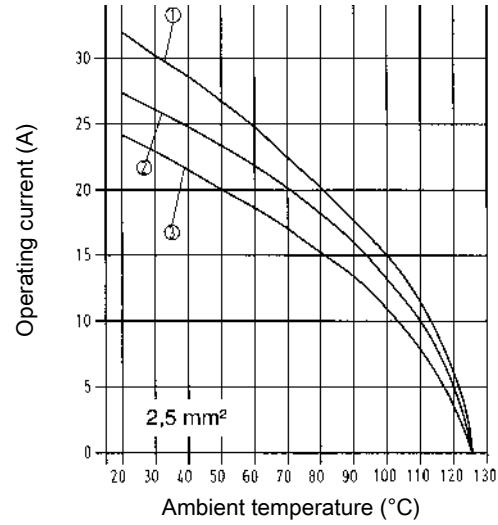
The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Han® 3 Hv E
- ② Han® 6 / 12 Hv E
- ③ Han® 10 / 16 / 20 / 32 Hv E

## Derating



- ① Han® 3 Hv E
- ② Han® 6 / 12 Hv E
- ③ Han® 10 / 16 / 20 / 32 Hv E

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076

## Details

Han Hv E® screw requires special Han Hv E® housings

Tightening torque 0.5 Nm

Tightening torque PE screw 1.2 Nm

Number of contacts

16+

16 A 400/690 V 6 kV 3  
+ 2 additional relay contacts

Han  
Hv E

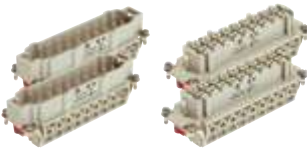
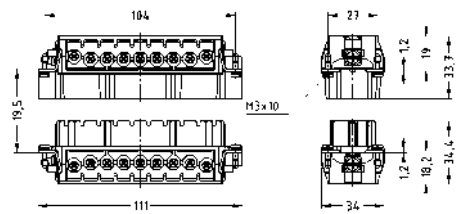
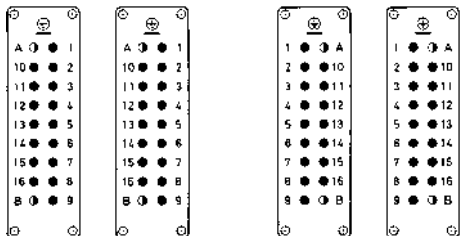
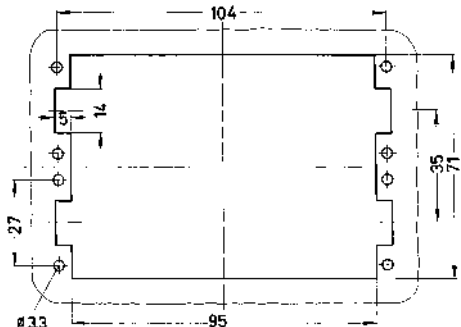
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han Hv E®, Screw termination, With wire protection, Contact surface: Silver plated</p>	0.75 ... 2.5	09 34 016 2601	09 34 016 2701	 <p>M F Contact arrangement (view from termination side) Han® 16 Hv E ◆ Power contacts ● Relay contact ○ Without contact</p> <p>Panel cut out for use without Hoods/Housings</p>

Number of contacts

**32+**

16 A 400/690 V 6 kV 3  
+ 4 additional relay contacts

Han  
Hv E

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han Hv E®, Screw termination, With wire protection, Contact surface: Silver plated</p>  <p>You need two inserts for a complete assembly!</p>	0.75 ... 2.5	09 34 016 2601	09 34 016 2701	  <p><b>M</b> <b>F</b></p> <p>Contact arrangement (view from termination side) Han® 32 Hv E</p> <ul style="list-style-type: none"> <li>◆ Power contacts</li> <li>● Relay contact</li> <li>○ Without contact</li> </ul>  <p>Panel cut out for use without Hoods/Housings</p>

## Features

- Designed for application up to 830 V
- Reliable cage clamp termination
- No special tools required
- Vibration-proved

## Technical characteristics

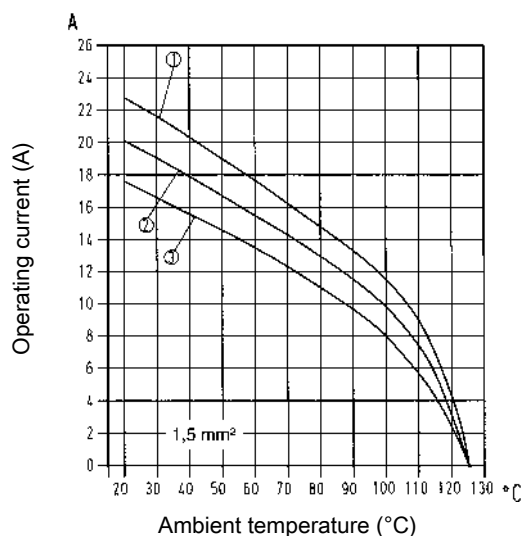
Number of contacts	3, 6, 10, 12, 20
Additional contacts	+ 2 additional relay contacts, + 4 additional relay contacts
Rated current	16 A
Rated voltage	830 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Rated voltage acc. to CSA	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

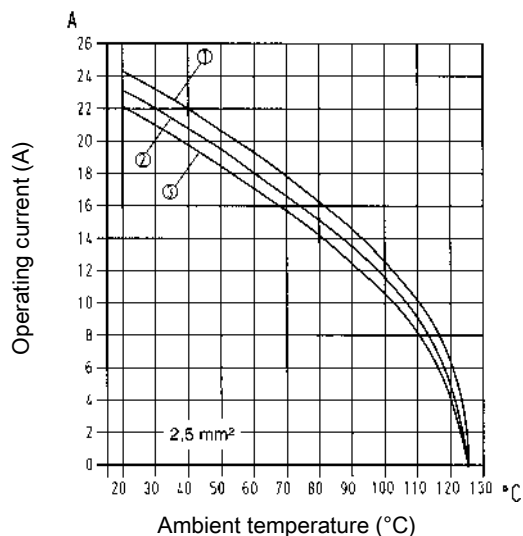
The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Han® 3 Hv ES
- ② Han® 6 Hv ES / Han® 12 Hv ES
- ③ Han® 10 Hv ES / Han® 20 Hv ES

## Derating



- ① Han® 3 Hv ES
- ② Han® 6 Hv ES / Han® 12 Hv ES
- ③ Han® 10 Hv ES / Han® 20 Hv ES

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076

## Details

Not mating compatible to Han Hv E® screw/crimp termination

Tightening torque 0.5 Nm


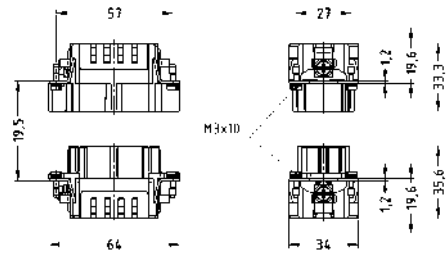
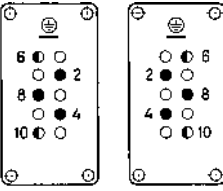
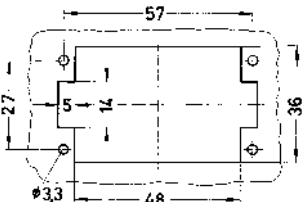
Tightening torque PE screw 1.2 Nm

Number of contacts

# 3+

16 A 830 V 8 kV 3  
+ 2 additional relay contacts

Han  
Hv E

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han® Hv ES, Cage-clamp termination, Contact surface: Silver plated 	0.14 ... 2.5	09 34 003 2616	09 34 003 2716	  <p>M                  F</p> <p>Contact arrangement (view from termination side)                      Han® 3 Hv ES                      ♦ Power contacts                      ● Relay contact                      ○ Without contact</p>  <p>Panel cut out                      for use without Hoods/Housings</p>

Number of contacts

## 6+

16 A 830 V 8 kV 3  
+ 2 additional relay contacts

Han  
Hv E

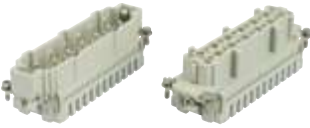
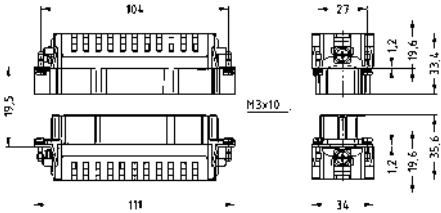
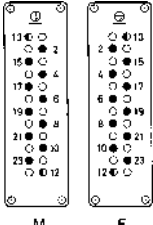
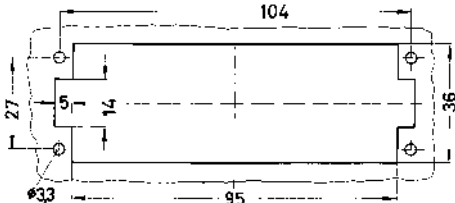
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® Hv ES, Cage-clamp termination, Contact surface: Silver plated</p>	0.14 ... 2.5	09 34 006 2616	09 34 006 2716	 <p><b>M</b>      <b>F</b> Contact arrangement (view from termination side) Han® 6 Hv ES</p> <ul style="list-style-type: none"> <li>◆ Power contacts</li> <li>● Relay contact</li> <li>○ Without contact</li> </ul> <p>Panel cut out for use without Hoods/Housings</p>

Number of contacts

10+

16 A 830 V 8 kV 3  
+ 2 additional relay contacts

Han  
Hv E

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han® Hv ES, Cage-clamp termination, Contact surface: Silver plated 	0.14 ... 2.5	09 34 010 2616	09 34 010 2716	  <p>                     Contact arrangement (view from termination side)                      Han® 10 Hv ES                      ♦ Power contacts                      ● Relay contact                      ○ Without contact                 </p>  <p>                     Panel cut out                      for use without Hoods/Housings                 </p>



Number of contacts

# 12+

16 A 830 V 8 kV 3  
+ 4 additional relay contacts

Han  
Hv E

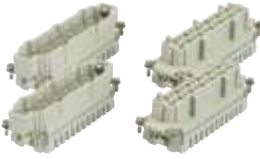
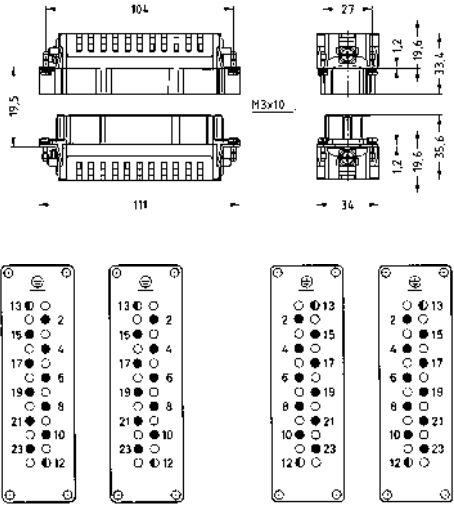
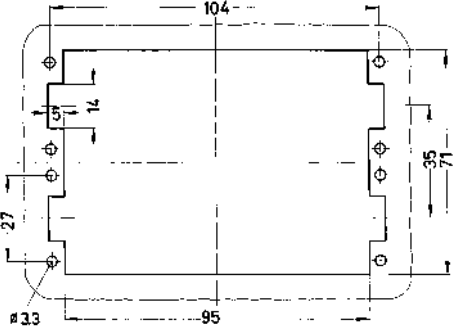
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® Hv ES, Cage-clamp termination, Contact surface: Silver plated</p> <p>You need two inserts for a complete assembly!</p>	0.14 ... 2.5	09 34 006 2616	09 34 006 2716	<p><b>M</b> <b>F</b> Contact arrangement (view from termination side) Han® 12 Hv ES ◆ Power contacts ● Relay contact ○ Without contact</p> <p>Panel cut out for use without Hoods/Housings</p>

Number of contacts

**20+**

16 A 830 V 8 kV 3  
+ 4 additional relay contacts

Han  
Hv E

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® Hv ES, Cage-clamp termination, Contact surface: Silver plated</p>  <p>You need two inserts for a complete assembly!</p>	0.14 ... 2.5	09 34 010 2616	09 34 010 2716	 <p><b>M</b> <b>F</b></p> <p>Contact arrangement (view from termination side) Han® 20 Hv ES  <ul style="list-style-type: none"> <li>● Power contacts</li> <li>◼ Relay contact</li> <li>○ Without contact</li> </ul> </p>  <p>Panel cut out for use without Hoods/Housings</p>

## Technical characteristics

Contact resistance	≤1 mΩ
Material (contacts)	Copper alloy
RoHS	compliant with exemption

## Specifications and approvals


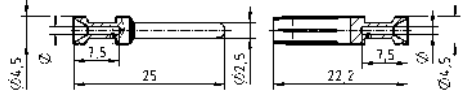
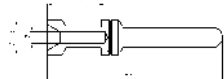

EN 60664-1  
IEC 61984

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																														
		Male	Female																															
Han E®, Crimp contact, Contact surface: Silver plated  	0.5	09 33 000 6121	09 33 000 6220	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm<sup>2</sup> AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar</p> <p>Stripping length 7.5 mm</p>  <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.75-1 mm<sup>2</sup> AWG 18</td> <td>1.45 mm</td> <td>7.5 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>7.5 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>7.5 mm</td> </tr> </tbody> </table>	Conductor cross-section	Identification	0.14-0.37 mm <sup>2</sup> AWG 26-22	no groove	0.5 mm <sup>2</sup> AWG 20	no groove	0.75 mm <sup>2</sup> AWG 18	1 groove*	1 mm <sup>2</sup> AWG 18	1 groove	1.5 mm <sup>2</sup> AWG 16	2 groove	2.5 mm <sup>2</sup> AWG 14	3 groove	3 mm <sup>2</sup> AWG 12	wide groove	4 mm <sup>2</sup> AWG 12	no groove	Conductor cross-section	ø	Stripping length	0.75-1 mm <sup>2</sup> AWG 18	1.45 mm	7.5 mm	1.5 mm <sup>2</sup> AWG 16	1.75 mm	7.5 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	7.5 mm
	Conductor cross-section	Identification																																
	0.14-0.37 mm <sup>2</sup> AWG 26-22	no groove																																
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	1 mm <sup>2</sup> AWG 18	1 groove																																
	1.5 mm <sup>2</sup> AWG 16	2 groove																																
2.5 mm <sup>2</sup> AWG 14	3 groove																																	
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4 mm <sup>2</sup> AWG 12	no groove																																	
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2.5 mm <sup>2</sup> AWG 14	2.25 mm	7.5 mm																																
0.75	09 33 000 6114	09 33 000 6214																																
1	09 33 000 6105	09 33 000 6205																																
1.5	09 33 000 6104	09 33 000 6204																																
2.5	09 33 000 6102	09 33 000 6202																																
3	09 33 000 6106	09 33 000 6206																																
4	09 33 000 6107	09 33 000 6207																																
Han E®, Crimp contact, Relay contact, Contact surface: Silver plated  	0.75 ... 1	09 33 000 6109																																
	1.5	09 33 000 6110																																
	2.5	09 33 000 6111																																

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP65
Type rating acc. to UL 50 / UL 50E	4, 4X, 12
Material (hood/housing)	Aluminium die-cast
Surface (hood/housing)	Powder-coated
Colour (hood/housing)	RAL 7037 (dust grey)
Material (seal)	NBR
Material (locking)	Polycarbonate (PC), Stainless steel
Colour (locking)	RAL 7037 (dust grey)
Material flammability class acc. to UL 94 (locking levers)	V-0
RoHS	compliant

## Specifications and approvals

DNV GL



## Details


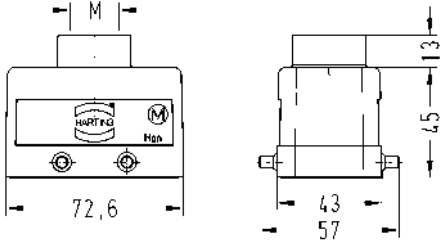

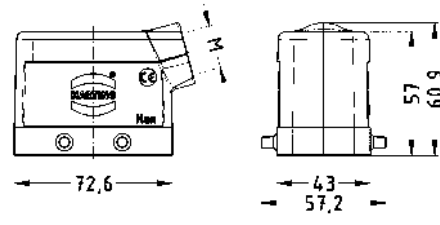

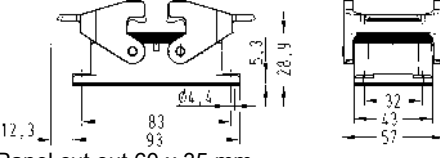

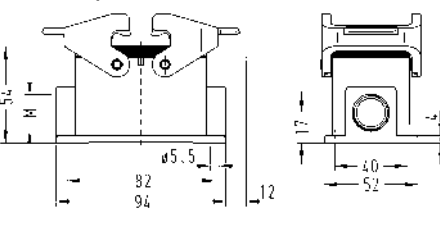

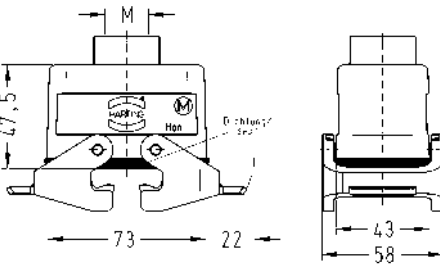
Special hoods/housings for Han Hv E® screw terminal

**Standard hoods/housings** see chapter Han 31

Han  
Hv E


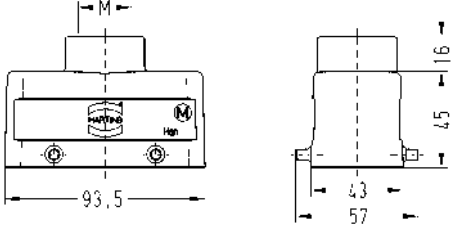

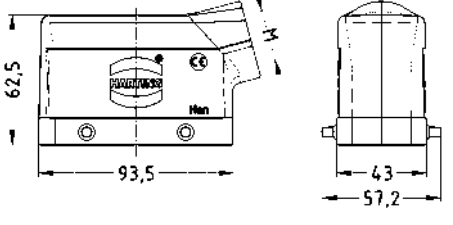

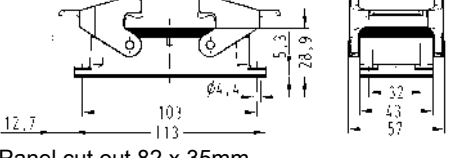

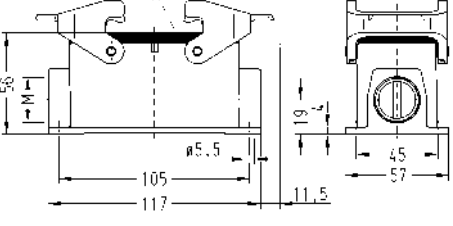

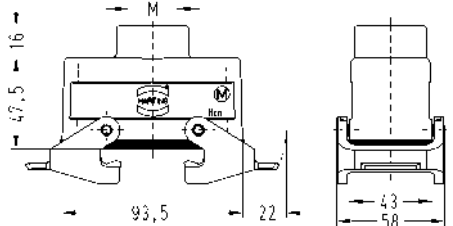
Special hoods/housings for Han Hv E® screw terminal  
Double locking lever

Han  
Hv E

Identification	Cable entry	Part number Low construction	Drawing (dimensions in mm)
Han Hv E®, Hood, Top entry, IP65  	1x M20 1x M25	19 34 003 0420 19 34 003 0421	
Han Hv E®, Hood, Side entry, IP65  	1x M20	19 34 003 0520	
Han Hv E®, Bulkhead mounted housing, Han-Easy Lock®, IP65  		09 34 003 0301	 <p>Panel cut out 60 x 35 mm</p>
Han Hv E®, Surface mounted housing, Side entry, Han-Easy Lock®, IP65  	2x M20	19 34 003 0270	
Han Hv E®, Cable to cable housing, Top entry, Han-Easy Lock®, IP65  	1x M20 1x M25	19 34 003 0730 19 34 003 0731	


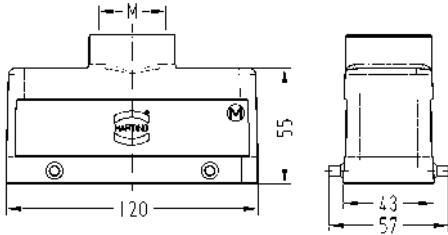

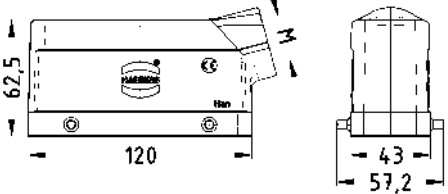

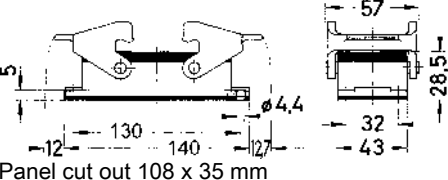

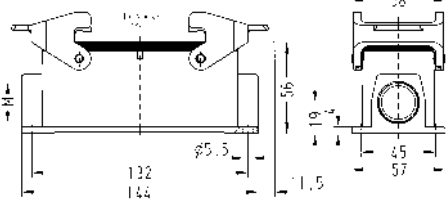

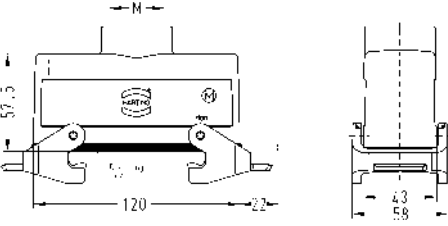
Special hoods/housings for Han Hv E® screw terminal  
Double locking lever

Han  
Hv E

Identification	Cable entry	Part number Low construction	Drawing (dimensions in mm)
Han Hv E®, Hood, Top entry, IP65  	1x M25	19 34 006 0421	
Han Hv E®, Hood, Side entry, IP65  	1x M25	19 34 006 0521	
Han Hv E®, Bulkhead mounted housing, Han-Easy Lock®, IP65  		09 34 006 0301	 <p>Panel cut out 82 x 35mm</p>
Han Hv E®, Surface mounted housing, Side entry, Han-Easy Lock®, IP65  	2x M25	19 34 006 0271	
Han Hv E®, Cable to cable housing, Top entry, Han-Easy Lock®, IP65  	1x M25 1x M32	19 34 006 0731 19 34 006 0732	

Special hoods/housings for Han Hv E® screw terminal  
Double locking lever

Han  
Hv E

Identification	Cable entry	Part number Low construction	Drawing (dimensions in mm)
Han Hv E®, Hood, Top entry, IP65  	1x M32	19 34 010 0422	
Han Hv E®, Hood, Side entry, IP65  	1x M25	19 34 010 0521	
Han Hv E®, Bulkhead mounted housing, Han-Easy Lock®, IP65  		09 34 010 0301	 <p>Panel cut out 108 x 35 mm</p>
Han Hv E®, Surface mounted housing, Side entry, Han-Easy Lock®, IP65  	2x M25	19 34 010 0271	
Han Hv E®, Cable to cable housing, Top entry, Han-Easy Lock®, IP65  	1x M32	19 34 010 0732	

Contents

Page

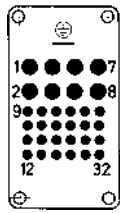
Han® K 4/4 Axial screw / Cage-clamp .....	<b>Han 05.8</b>
Han® K 8/24 Crimp .....	<b>Han 05.11</b>
Han® K 32/55 Crimp .....	<b>Han 05.14</b>
Han® K 4/0 Screw.....	<b>Han 05.17</b>
Han® K 4/2 Screw.....	<b>Han 05.19</b>
Han® K 6/12 Crimp .....	<b>Han 05.21</b>
Han® K 6/12 Axial screw / Screw.....	<b>Han 05.24</b>
Han® K 6/36 Crimp .....	<b>Han 05.26</b>
Han® K 12/2 Crimp .....	<b>Han 05.29</b>
Han® K 9/9/18 Crimp.....	<b>Han 05.32</b>
Han® K 4/8 Screw.....	<b>Han 05.35</b>
Han® K 6/6 Crimp .....	<b>Han 05.37</b>
Han® K 6/6 Axial screw / Screw.....	<b>Han 05.40</b>
Han® K 8/0 Axial screw.....	<b>Han 05.42</b>



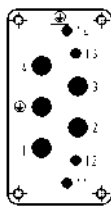
Han-Com

Size Description

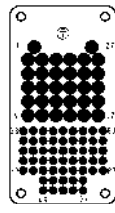
10 B



Han® K 8/24  
Power 16 A / 230/400 V  
Signal 10 A / 160 V

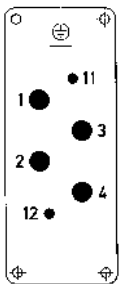


Han® K 4/4  
63 A / 690 V  
16 A / 230 V

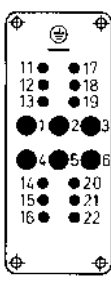


Han® K 32/55  
10 A / 250 V  
4 A / 50 V

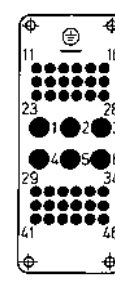
16 B



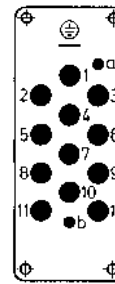
Han® K 4/0, 4/2  
Power 80 A / 830 V  
Power 16 A / 400 V  
Signal



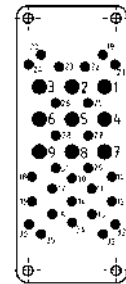
Han® K 6/12  
40 A / 690 V  
10 A / 230/400 V



Han® K 6/36  
40 A / 690 V  
10 A / 160 V

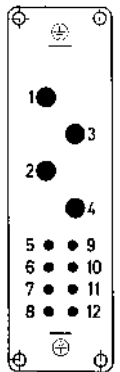


Han® K 12/2  
40 A / 690 V  
10 A / 250 V

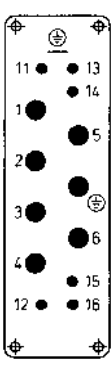


Han® K 9/9/18  
40 A / 830 V  
16 A / 830 V  
10 A / 250 V

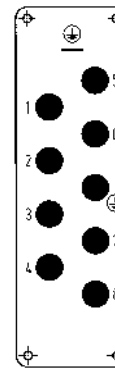
24 B



Han® K 4/8  
Power 80 A / 400 V  
Signal 16 A / 400 V



Han® K 6/6  
100 A / 690 V  
16 A / 400 V



Han® K 8/0  
100 A / 690 V

32 B

suitable for 2 inserts of size 16 B

48 B

suitable for 2 inserts of size 24 B

## Summary

Type	Technical characteristics								Suitable Hoods/ Housings
	Power area				Signal area				
	Number of contacts	A	V ~	Termination	Number of contacts	A	V ~	Termination	Size
Han® K 4/0	4+PE	80	830	screw	—	—	—	—	16 B, 32 B
Han® K 4/2	4+PE	80	830	screw	2	16	400	screw	16 B, 32 B
Han® K 4/4	4+PE	63	690	axial screw	4	16	250	cage clamp	10 B
Han® K 4/8	4+PE	80	400	screw	8	16	400	screw	24 B, 48 B
Han® K 6/6	6+PE	100	690	crimp	6	16	400	crimp	24 B, 48 B
Han® K 6/6	6+PE	100	690	axial screw	6	16	400	screw	24 B, 48 B
Han® K 6/12	6+PE	40	690	crimp	12	10	230/400	crimp	16 B, 32 B
Han® K 6/12	6+PE	40	690	axial screw	12	10	230/400	screw	16 B, 32 B
Han® K 6/36	6+PE	40	690	crimp	36	10	160	crimp	16 B, 32 B
Han® K 8/0	8+PE	100	690	axial screw	—	—	—	—	24 B, 48 B
Han® K 8/24	8+PE	16	230/400	crimp	24	10	160	crimp	10 B
Han® K 12/2	12+PE	40	690	crimp	2	10	250	crimp	16 B, 32 B
Han® K 9/9/18	9+9+PE	40/16	830	crimp	18	10	250	crimp	16 B, 32 B
Han® K 32/55	32+PE	10	250	crimp	55	4	50	crimp	10 B

## Type identification

Han® K 6/12

Han® Industrial connectors Han®  
 K Series Han® K / Han-Com®  
 6 Number of power contacts  
 12 Number of signal contacts

## Identification of contact position

Han® K connectors from 1 to ... (power area)  
 from 11 to... (signal area)

Exceptions

Han® K 4/8 and Han® K 8/24 from 1 to ... (consecutively)  
 Han® K 12/2 from 1 to 12 (power area)  
 with „a“ and „b“ (signal area)

## Comment for users

For the combination of several circuits in one cable and/or e.g. one connector the following standards are valid:  
 DIN VDE 0100-410/10.2018 § 414.4 and DIN EN 60204-1/06.2007 § 13.1.3

## Accessories

Crimping tools chapter 90  
 Cable clamps chapter 80  
 Coding of hoods/housings chapter 80  
 Label acc. to CSA-approval chapter 80  
 Han-Snap® chapter 11  
 PCB adapter chapter 80

## Description

## Depiction

## Dimensions in mm

### Step 1:

**Signal contacts:**  
Push screwdriver (0.5 x 3.5) into rectangular chamber. Strip insulation from the wire with a length and insert the wire into the round contact chamber.

**Power contacts:**

Strip insulation from the wire with a length and insert the wire into the contact chamber until insulation is flush with contact. Do not twist the strands of the wire.

### Step 2:

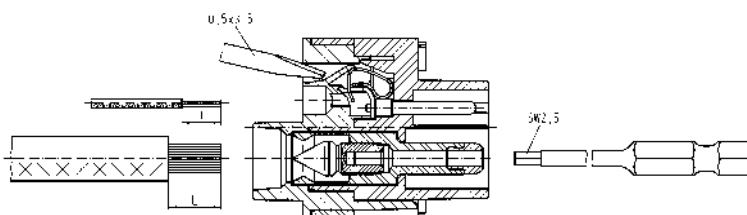
**Signal contacts:**  
Push screwdriver (0.5 x 3.5) out of rectangular chamber.

**Power contacts:**

Hold the wire in position and tighten by a hexagonal driver (SW 2.5) from the mating side with a tightening torque.

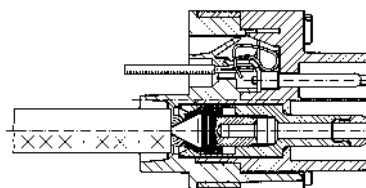
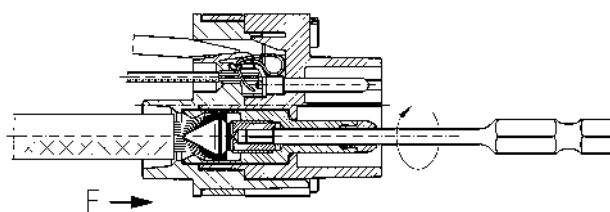
### Step 3:

Complete connection



I: Stripping length for signal contacts

L: Stripping length for power contacts



## Description

## Depiction

## Dimensions in mm

### Step 1:

#### Signal contacts:

Strip insulation from the wire with a length and insert the wire into the rectangular contact chamber.

#### Power contacts:

Strip insulation from the wire with a length and insert the wire into the contact chamber until insulation is flush with contact. Do not twist the strands of the wire.

### Step 2:

#### Signal contacts:

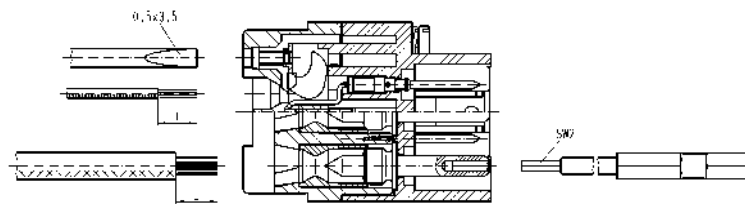
Tighten screw termination with screwdriver (0.5 x 3.5) with a tightening torque.

#### Power contacts:

Hold the wire in position and tighten by a hexagonal driver (SW 2) from the mating side with a tightening torque.

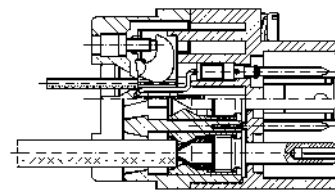
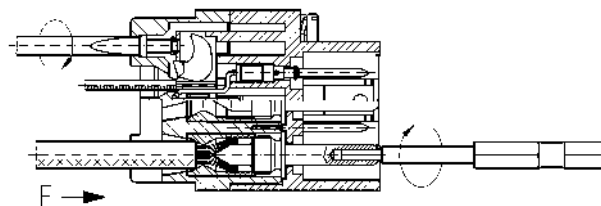
### Step 3:

Complete connection



I: Stripping length for signal contacts

L: Stripping length for power contacts



Han-Com

Description

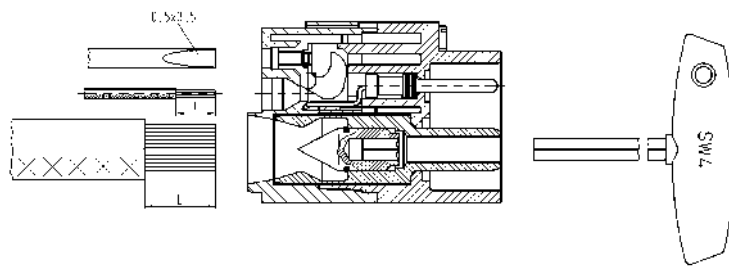
Depiction

Dimensions in mm

**Step 1:**

**Signal contacts:**  
Strip insulation from the wire with a length and insert the wire into the rectangular contact chamber.

**Power contacts:**  
Strip insulation from the wire with a length and insert the wire into the contact chamber until insulation is flush with contact. Do not twist the strands of the wire.



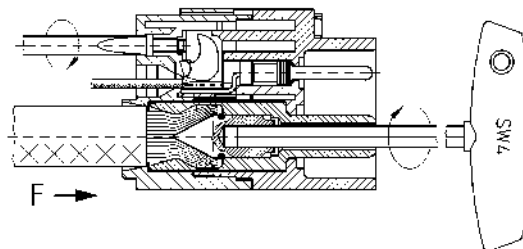
I: Stripping length for signal contacts

L: Stripping length for power contacts

**Step 2:**

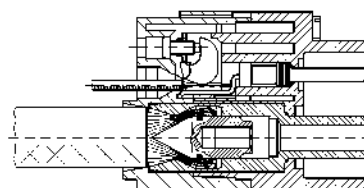
**Signal contacts:**  
Tighten screw termination with screwdriver (0.5 x 3.5) with a tightening torque.

**Power contacts:**  
Hold the wire in position and tighten by a hexagonal driver (SW 4) from the mating side with a tightening torque.



**Step 3:**

Complete connection

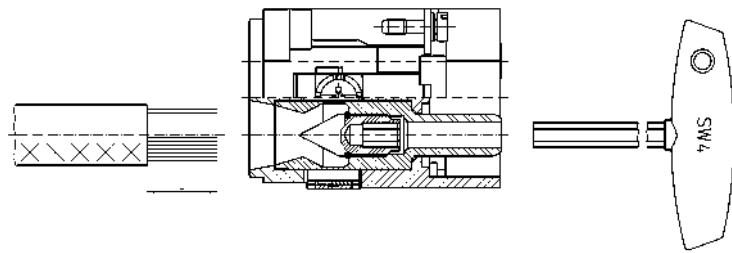


**Description**

**Depiction**

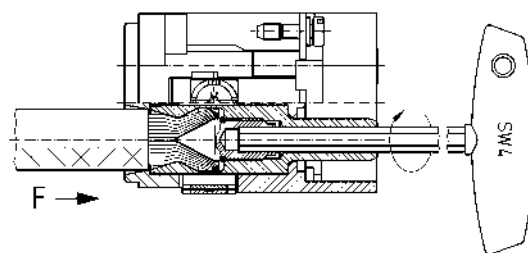
**Dimensions in mm**

**Step 1:**  
Strip insulation from the wire with a length and insert the wire into the contact chamber until insulation is flush with contact. Do not twist the strands of the wire.

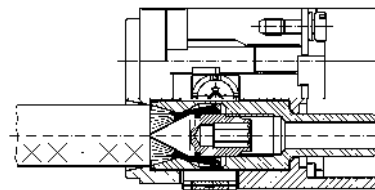


L: Stripping length for power contacts

**Step 2:**  
Hold the wire in position and tighten by a hexagonal driver (SW 4) from the mating side with a tightening torque.



**Step 3:**  
Complete connection



## Features

- Combination of signal and power in one connector
- Axial screw termination for power area
- Cage clamp termination for signal area
- Same range of cross-section for PE contacts and power contacts

## Technical characteristics

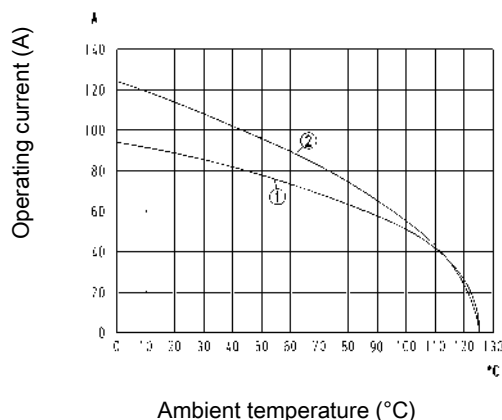
Number of contacts	4
Additional contacts	+ 4 additional signal contacts
Rated current	63 A
Rated voltage	690 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated current (signal)	16 A
Rated voltage (signal)	250 V
Rated impulse voltage (signal)	4 kV
Pollution degree (signal)	3
Rated current acc. to UL	63 A
Rated current acc. to UL (signal)	16 A
Rated current acc. to CSA	63 A
Rated current acc. to CSA (signal)	16 A
Rated voltage acc. to UL	600 V
Rated voltage acc. to UL (signal)	230 V
Rated voltage acc. to CSA	600 V
Rated voltage acc. to CSA (signal)	230 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤0.5 mΩ
Contact resistance, signal area	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Wire outer diameter	≤8.9 mm, ≤11 mm @ 22 mm <sup>2</sup>
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 16 mm<sup>2</sup>
- ② Conductor cross-section 22 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL

## Details

**Hoods/Housings** see chapter Han 31

**Hex key (A/F 2.5)** see chapter Han 90

### Remarks on the axial screw technique


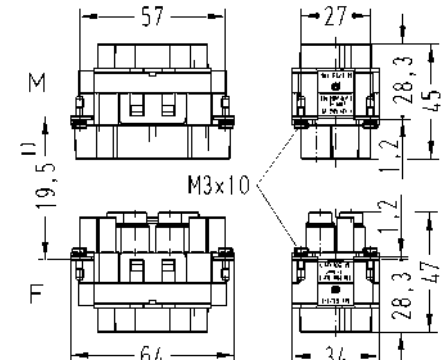

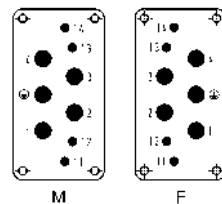
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts

**4+**

63 A 690 V 8 kV 3  
 16 A 250 V 4 kV 3  
 + 4 additional signal contacts

Han-Com

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																	
		Male	Female																		
Han-Com®, Han® K 4/4, Axial screw termination / cage-clamp termination, Contact surface: Silver plated    Finger safe	6 ... 16, 0.14 ... 2.5 Signal	09 38 008 2601	09 38 008 2701	 1) distance for contact max. 21 mm																	
Han-Com®, Han® K 4/4, Axial screw termination / cage-clamp termination, Contact surface: Silver plated    Not finger safe	6 ... 16, 0.14 ... 2.5 Signal	09 38 008 2611		 Contact arrangement (view from termination side) <table border="1"> <thead> <tr> <th rowspan="2">Conductor cross-section</th> <th colspan="2">Power contacts</th> </tr> <tr> <th>Tightening torque</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>6 mm<sup>2</sup></td> <td>2 Nm</td> <td>11 ... 12 mm</td> </tr> <tr> <td>10 mm<sup>2</sup></td> <td>3 Nm</td> <td>11 ... 12 mm</td> </tr> <tr> <td>16 mm<sup>2</sup></td> <td>4 Nm</td> <td>11 ... 12 mm</td> </tr> <tr> <td>22 mm<sup>2</sup></td> <td>4 Nm</td> <td>11 ... 12 mm</td> </tr> </tbody> </table> <p>Signal contacts :                      Stripping length 7 ... 9 mm</p>	Conductor cross-section	Power contacts		Tightening torque	Stripping length	6 mm <sup>2</sup>	2 Nm	11 ... 12 mm	10 mm <sup>2</sup>	3 Nm	11 ... 12 mm	16 mm <sup>2</sup>	4 Nm	11 ... 12 mm	22 mm <sup>2</sup>	4 Nm	11 ... 12 mm
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16 mm <sup>2</sup>	4 Nm	11 ... 12 mm																			
22 mm <sup>2</sup>	4 Nm	11 ... 12 mm																			


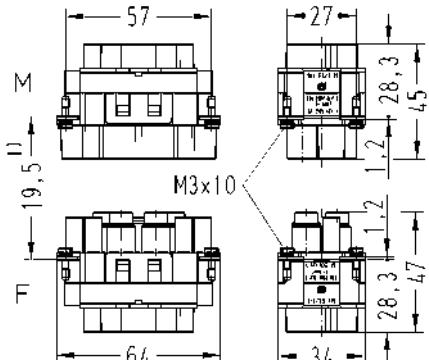

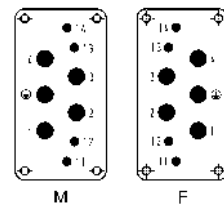


Number of contacts

**4+**

63 A 690 V 8 kV 3  
16 A 250 V 4 kV 3  
+ 4 additional signal contacts

Han-Com

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																	
		Male	Female																		
<p>Han-Com®, Han® K 4/4, Axial screw termination / cage-clamp termination, Contact surface: Silver plated</p>  <p>Finger safe</p>	10 ... 22, 0.14 ... 2.5 Signal	09 38 008 2602	09 38 008 2702	 <p>1) distance for contact max. 21 mm</p>																	
<p>Han-Com®, Han® K 4/4, Axial screw termination / cage-clamp termination, Contact surface: Silver plated</p>  <p>Not finger safe</p>	10 ... 22, 0.14 ... 2.5 Signal	09 38 008 2612		 <p>Contact arrangement (view from termination side)</p> <table border="1"> <thead> <tr> <th rowspan="2">Conductor cross-section</th> <th colspan="2">Power contacts</th> </tr> <tr> <th>Tightening torque</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>6 mm<sup>2</sup></td> <td>2 Nm</td> <td>11 ... 12 mm</td> </tr> <tr> <td>10 mm<sup>2</sup></td> <td>3 Nm</td> <td>11 ... 12 mm</td> </tr> <tr> <td>16 mm<sup>2</sup></td> <td>4 Nm</td> <td>11 ... 12 mm</td> </tr> <tr> <td>22 mm<sup>2</sup></td> <td>4 Nm</td> <td>11 ... 12 mm</td> </tr> </tbody> </table> <p>Signal contacts : Stripping length 7 ... 9 mm</p>	Conductor cross-section	Power contacts		Tightening torque	Stripping length	6 mm <sup>2</sup>	2 Nm	11 ... 12 mm	10 mm <sup>2</sup>	3 Nm	11 ... 12 mm	16 mm <sup>2</sup>	4 Nm	11 ... 12 mm	22 mm <sup>2</sup>	4 Nm	11 ... 12 mm
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16 mm <sup>2</sup>	4 Nm	11 ... 12 mm																			
22 mm <sup>2</sup>	4 Nm	11 ... 12 mm																			

## Features

- Combination of signal and power in one connector
- Crimp termination for power and signal area
- Use of standard Han E® and Han D® contacts

## Technical characteristics

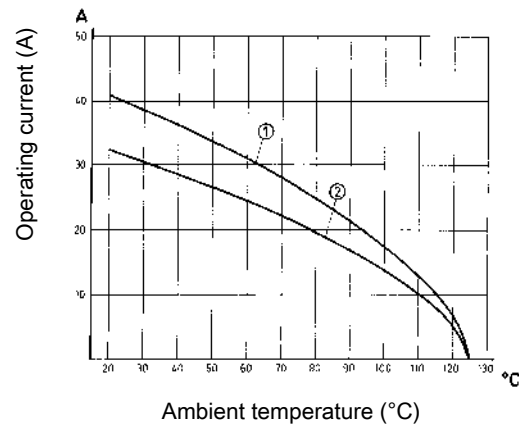
Number of contacts	8
Additional contacts	+ 24 additional signal contacts
Rated current	16 A
Rated voltage conductor-earth	230 V
Rated voltage conductor-conductor	400 V
Rated impulse voltage	4 kV
Pollution degree	3
Rated current (signal)	10 A
Rated voltage (signal)	160 V
Rated impulse voltage (signal)	2.5 kV
Pollution degree (signal)	3
Rated current acc. to UL	16 A
Rated current acc. to UL (signal)	10 A
Rated current acc. to CSA	16 A
Rated current acc. to CSA (signal)	10 A
Rated voltage acc. to UL	600 V
Rated voltage acc. to UL (signal)	600 V
Rated voltage acc. to CSA	300 V
Rated voltage acc. to CSA (signal)	300 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 3 \text{ m}\Omega, \leq 1 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polyamide (PA)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	HB
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 4 mm<sup>2</sup>
- ② Conductor cross-section 2.5 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
DNV GL

## Details

**Hoods/Housings** see chapter Han 31

Contact resistance Han D® crimp contact:  $\leq 3 \text{ m}\Omega$

Contact resistance Han E® crimp contact:  $\leq 1 \text{ m}\Omega$

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

### Removal of power contacts (Han E®)



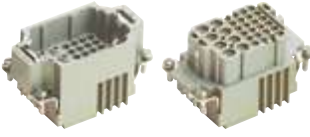
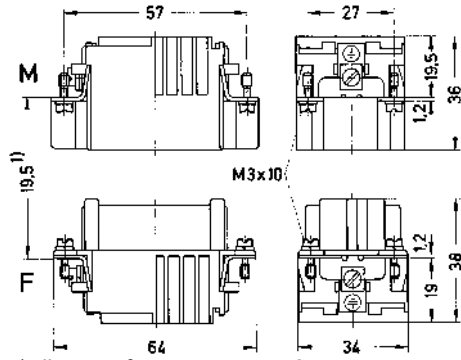
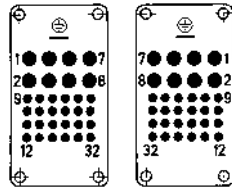
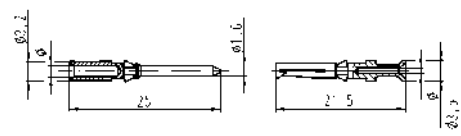

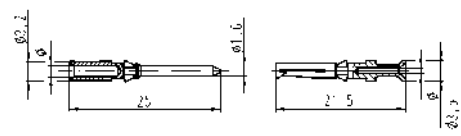

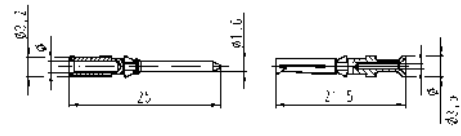
- ① Push cross-slotted screw driver (size 0) in the relevant hole of the contact until it reaches the bottom
- ② Withdraw the crimped contact from the insert


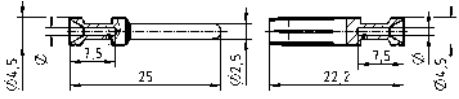

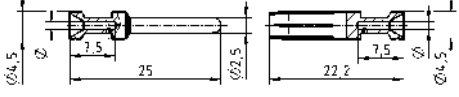

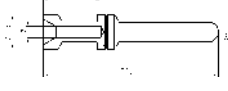

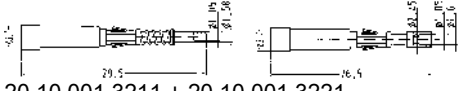
Number of contacts

# 8+

16 A 230/400 V 4 kV 3  
 10 A 160 V 2.5 kV 3  
 + 24 additional signal contacts

Han-Com

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																												
		Male	Female																													
Han-Com®, Han® K 8/24, Crimp termination  <p>Please order crimp contacts separately.</p>	0.5 ... 4, 0.14 ... 2.5 Signal	09 38 032 3001	09 38 032 3101	  <p>Contact arrangement (view from termination side)</p>  <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	Ø	Stripping length	0.14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm
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Han D®, Crimp contact, Contact surface: Silver plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 000 6104 09 15 000 6103 09 15 000 6105 09 15 000 6102 09 15 000 6101 09 15 000 6106	09 15 000 6204 09 15 000 6203 09 15 000 6205 09 15 000 6202 09 15 000 6201 09 15 000 6206	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	Ø	Stripping length	0.14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm
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Han D®, Crimp contact, Contact surface: Gold plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 000 6124 09 15 000 6123 09 15 000 6125 09 15 000 6122 09 15 000 6121 09 15 000 6126	09 15 000 6224 09 15 000 6223 09 15 000 6225 09 15 000 6222 09 15 000 6221 09 15 000 6226	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	Ø	Stripping length	0.14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm
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Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																		
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Han E®, Crimp contact, Contact surface: Silver plated 	0.5	09 33 000 6121	09 33 000 6220	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm<sup>2</sup> AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar</p> <p>Stripping length 7.5 mm</p>	Conductor cross-section	Identification	0.14-0.37 mm <sup>2</sup> AWG 26-22	no groove	0.5 mm <sup>2</sup> AWG 20	no groove	0.75 mm <sup>2</sup> AWG 18	1 groove*	1 mm <sup>2</sup> AWG 18	1 groove	1.5 mm <sup>2</sup> AWG 16	2 groove	2.5 mm <sup>2</sup> AWG 14	3 groove	3 mm <sup>2</sup> AWG 12	wide groove	4 mm <sup>2</sup> AWG 12	no groove
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0.75	09 33 000 6114	09 33 000 6214																				
1	09 33 000 6105	09 33 000 6205																				
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2.5	09 33 000 6102	09 33 000 6202																				
4	09 33 000 6107	09 33 000 6207																				
Han E®, Crimp contact, Contact surface: Gold plated 	0.5	09 33 000 6122	09 33 000 6222	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm<sup>2</sup> AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar</p> <p>Stripping length 7.5 mm</p>	Conductor cross-section	Identification	0.14-0.37 mm <sup>2</sup> AWG 26-22	no groove	0.5 mm <sup>2</sup> AWG 20	no groove	0.75 mm <sup>2</sup> AWG 18	1 groove*	1 mm <sup>2</sup> AWG 18	1 groove	1.5 mm <sup>2</sup> AWG 16	2 groove	2.5 mm <sup>2</sup> AWG 14	3 groove	3 mm <sup>2</sup> AWG 12	wide groove	4 mm <sup>2</sup> AWG 12	no groove
	Conductor cross-section	Identification																				
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3 mm <sup>2</sup> AWG 12	wide groove																					
4 mm <sup>2</sup> AWG 12	no groove																					
0.75	09 33 000 6115	09 33 000 6215																				
1	09 33 000 6118	09 33 000 6218																				
1.5	09 33 000 6116	09 33 000 6216																				
2.5	09 33 000 6123	09 33 000 6223																				
4	09 33 000 6119	09 33 000 6221																				
Han E®, Crimp contact, Relay contact, Contact surface: Silver plated 	0.75 ... 1	09 33 000 6109		 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ϕ</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.75-1 mm<sup>2</sup> AWG 18</td> <td>1.45 mm</td> <td>7.5 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>7.5 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>7.5 mm</td> </tr> </tbody> </table>	Conductor cross-section	ϕ	Stripping length	0.75-1 mm <sup>2</sup> AWG 18	1.45 mm	7.5 mm	1.5 mm <sup>2</sup> AWG 16	1.75 mm	7.5 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	7.5 mm						
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2.5 mm <sup>2</sup> AWG 14	2.25 mm	7.5 mm																				
1.5	09 33 000 6110																					
2.5	09 33 000 6111																					
FO contact, for 1 mm plastic fibre 		20 10 001 3211	20 10 001 3221	 <p>20 10 001 3211 + 20 10 001 3221</p>																		

## Features

- Combination of signal and power in one connector
- Crimp termination for power and signal area
- Use of standard Han D® and Han® D-sub contacts

## Technical characteristics

Number of contacts	32
Additional contacts	+ 55 additional signal contacts
Rated current	10 A
Rated voltage	250 V
Rated impulse voltage	4 kV
Pollution degree	2
Rated current (signal)	4 A
Rated voltage (signal)	50 V
Rated impulse voltage (signal)	0.8 kV
Pollution degree (signal)	2
Rated voltage acc. to UL	600 V
Rated voltage acc. to UL (signal)	30 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 3 \text{ m}\Omega, \leq 10 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076

## Details

Contact resistance Han D® crimp contact:  $\leq 3 \text{ m}\Omega$

Contact resistance D-Sub crimp contact:  $\leq 10 \text{ m}\Omega$

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

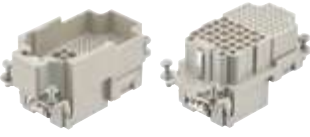
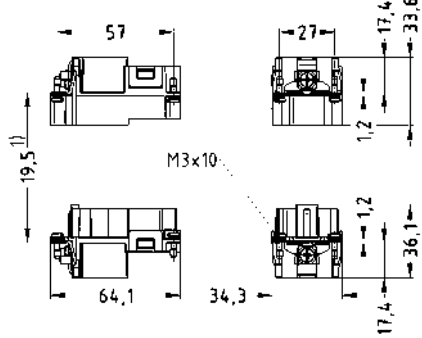
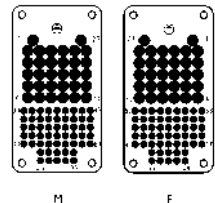
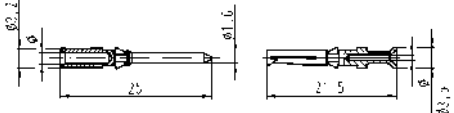

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts


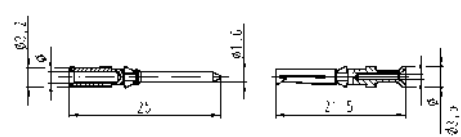

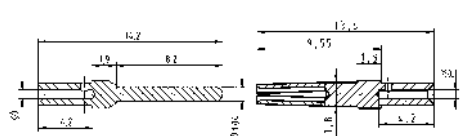
# 32+

10 A 250 V 4 kV 2  
 4 A 50 V 0.8 kV 2  
 + 55 additional signal contacts

Han-Com

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																												
		Male	Female																													
Han-Com®, Han® K 32/55, Crimp termination  <p>Please order crimp contacts separately.</p>	0.14 ... 2.5, 0.09 ... 0.52 Signal	09 38 087 3001	09 38 087 3101	 <p>1) distance for contact max. 21 mm</p>  <p>Contact arrangement (view from termination side)</p>  <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	Ø	Stripping length	0.14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm
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Han D®, Crimp contact, Contact surface: Silver plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 000 6104 09 15 000 6103 09 15 000 6105 09 15 000 6102 09 15 000 6101 09 15 000 6106	09 15 000 6204 09 15 000 6203 09 15 000 6205 09 15 000 6202 09 15 000 6201 09 15 000 6206																													

Han-Com

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																												
		Male	Female																													
Han D®, Crimp contact, Contact surface: Gold plated 	0.14 ... 0.37	09 15 000 6124	09 15 000 6224	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	Ø	Stripping length	0.14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm
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2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm																													
0.5	09 15 000 6123	09 15 000 6223																														
0.75	09 15 000 6125	09 15 000 6225																														
1	09 15 000 6122	09 15 000 6222																														
1.5	09 15 000 6121	09 15 000 6221																														
2.5	09 15 000 6126	09 15 000 6226																														
D-Sub, Standard, Crimp contact 	0.09 ... 0.25	09 67 000 7576	09 67 000 7476	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.09-0.25 mm<sup>2</sup></td> <td>0.64 mm</td> <td>4 mm</td> </tr> <tr> <td>0.13-0.33 mm<sup>2</sup></td> <td>0.88 mm</td> <td>4 mm</td> </tr> <tr> <td>0.25-0.52 mm<sup>2</sup></td> <td>1.13 mm</td> <td>4 mm</td> </tr> <tr> <td>0.33-0.82 mm<sup>2</sup></td> <td>1.34 mm</td> <td>4 mm</td> </tr> </tbody> </table> <p>for stranded wire according IEC 60228 Class 5</p>	Conductor cross-section	Ø	Stripping length	0.09-0.25 mm <sup>2</sup>	0.64 mm	4 mm	0.13-0.33 mm <sup>2</sup>	0.88 mm	4 mm	0.25-0.52 mm <sup>2</sup>	1.13 mm	4 mm	0.33-0.82 mm <sup>2</sup>	1.34 mm	4 mm													
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0.33-0.82 mm <sup>2</sup>	1.34 mm	4 mm																														
0.13 ... 0.33	09 67 000 5576	09 67 000 5476																														
0.25 ... 0.52	09 67 000 8576	09 67 000 8476																														

## Features

- Screw termination
- No signal contacts

## Technical characteristics

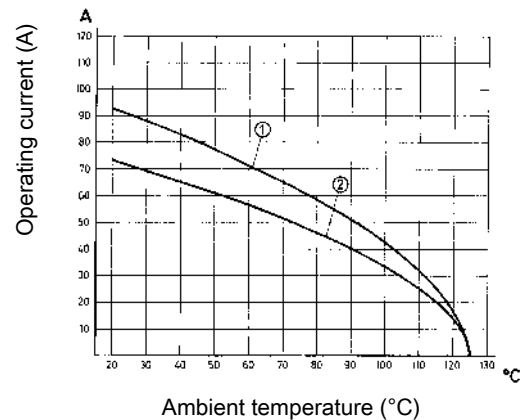
Number of contacts	4
Rated current	80 A
Rated voltage	830 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated current acc. to UL	80 A
Rated current acc. to CSA	80 A
Rated voltage acc. to UL	600 V
Rated voltage acc. to CSA	300 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 0.3 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 16 mm<sup>2</sup>  
 ② Conductor cross-section 10 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL

## Details

**Hoods/Housings** see chapter Han 31

In accordance with the appropriate regulations a wire-end sleeve has to be used at clamps without wire protection (see "screw terminal", chapter Han 00).


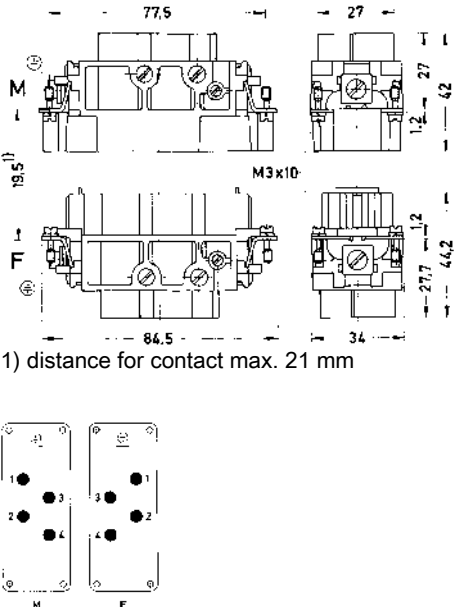


Number of contacts

**4+**

80 A 830 V 8 kV 3

Han-Com

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																								
		Male	Female																									
Han-Com®, Han® K 4/0, Screw termination, Contact surface: Silver plated 	1.5 ... 16	09 38 006 2611	09 38 006 2711	 <p>1) distance for contact max. 21 mm</p> <p>Contact arrangement (view from termination side)</p> <table border="1"> <thead> <tr> <th colspan="3">Power contacts</th> </tr> <tr> <th>Conductor cross-section</th> <th>Tightening torque</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>1.5 mm<sup>2</sup></td> <td>1.2 Nm</td> <td>14 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>2 Nm</td> <td>14 mm</td> </tr> <tr> <td>4 mm<sup>2</sup></td> <td>3 Nm</td> <td>14 mm</td> </tr> <tr> <td>6 mm<sup>2</sup></td> <td>3 Nm</td> <td>14 mm</td> </tr> <tr> <td>10 mm<sup>2</sup></td> <td>3 Nm</td> <td>14 mm</td> </tr> <tr> <td>16 mm<sup>2</sup></td> <td>3 Nm</td> <td>14 mm</td> </tr> </tbody> </table>	Power contacts			Conductor cross-section	Tightening torque	Stripping length	1.5 mm <sup>2</sup>	1.2 Nm	14 mm	2.5 mm <sup>2</sup>	2 Nm	14 mm	4 mm <sup>2</sup>	3 Nm	14 mm	6 mm <sup>2</sup>	3 Nm	14 mm	10 mm <sup>2</sup>	3 Nm	14 mm	16 mm <sup>2</sup>	3 Nm	14 mm
Power contacts																												
Conductor cross-section	Tightening torque	Stripping length																										
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2.5 mm <sup>2</sup>	2 Nm	14 mm																										
4 mm <sup>2</sup>	3 Nm	14 mm																										
6 mm <sup>2</sup>	3 Nm	14 mm																										
10 mm <sup>2</sup>	3 Nm	14 mm																										
16 mm <sup>2</sup>	3 Nm	14 mm																										

## Features

- Combination of signal and power in one connector
- Screw termination for power and signal area

## Technical characteristics

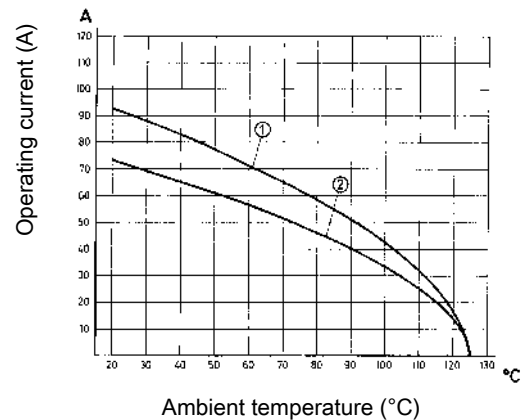
Number of contacts	4
Additional contacts	+ 2 additional signal contacts
Rated current	80 A
Rated voltage	830 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated current (signal)	16 A
Rated voltage (signal)	400 V
Rated impulse voltage (signal)	6 kV
Pollution degree (signal)	3
Rated current acc. to UL	80 A
Rated current acc. to UL (signal)	16 A
Rated current acc. to CSA	80 A
Rated current acc. to CSA (signal)	16 A
Rated voltage acc. to UL	600 V
Rated voltage acc. to UL (signal)	600 V
Rated voltage acc. to CSA	300 V
Rated voltage acc. to CSA (signal)	300 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 0.3 \text{ m}\Omega$
Contact resistance, signal area	$\leq 1 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 16 mm<sup>2</sup>
- ② Conductor cross-section 10 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
DNV GL

## Details

**Hoods/Housings** see chapter Han 31


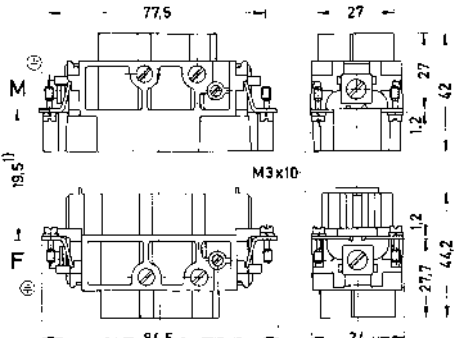
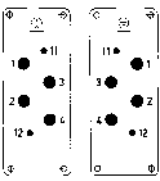
In accordance with the appropriate regulations a wire-end sleeve has to be used at clamps without wire protection (see "screw terminal", chapter Han 00).

Number of contacts

**4+**

80 A 830 V 8 kV 3  
 16 A 400 V 6 kV 3  
 + 2 additional signal contacts

Han-Com

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																								
		Male	Female																									
Han-Com®, Han® K 4/2, Screw termination, Contact surface: Silver plated 	1.5 ... 16, 0.5 ... 2.5 Signal	09 38 006 2601	09 38 006 2701	 <p>1) distance for contact max. 21 mm</p>  <p>Contact arrangement (view from termination side)</p> <table border="1"> <thead> <tr> <th colspan="3">Power contacts</th> </tr> <tr> <th>Conductor cross-section</th> <th>Tightening torque</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>1.5 mm<sup>2</sup></td> <td>1.2 Nm</td> <td>14 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>2 Nm</td> <td>14 mm</td> </tr> <tr> <td>4 mm<sup>2</sup></td> <td>3 Nm</td> <td>14 mm</td> </tr> <tr> <td>6 mm<sup>2</sup></td> <td>3 Nm</td> <td>14 mm</td> </tr> <tr> <td>10 mm<sup>2</sup></td> <td>3 Nm</td> <td>14 mm</td> </tr> <tr> <td>16 mm<sup>2</sup></td> <td>3 Nm</td> <td>14 mm</td> </tr> </tbody> </table> <p>Signal contacts :                      Stripping length 7.5 mm                      Tightening torque 0.5 Nm</p>	Power contacts			Conductor cross-section	Tightening torque	Stripping length	1.5 mm <sup>2</sup>	1.2 Nm	14 mm	2.5 mm <sup>2</sup>	2 Nm	14 mm	4 mm <sup>2</sup>	3 Nm	14 mm	6 mm <sup>2</sup>	3 Nm	14 mm	10 mm <sup>2</sup>	3 Nm	14 mm	16 mm <sup>2</sup>	3 Nm	14 mm
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10 mm <sup>2</sup>	3 Nm	14 mm																										
16 mm <sup>2</sup>	3 Nm	14 mm																										

## Features

- Combination of signal and power in one connector
- Crimp termination for power and signal area
- Use of standard Han® C and Han D® contacts
- 16 coding options

## Technical characteristics

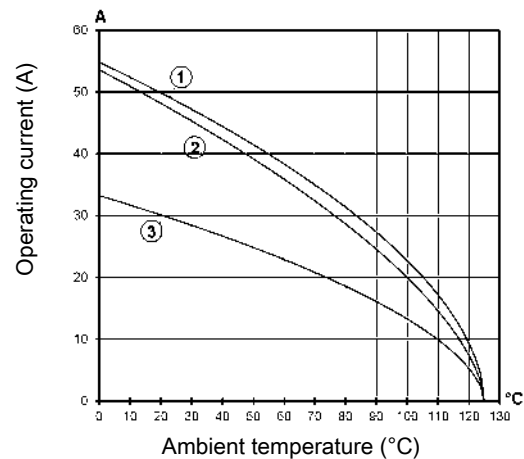
Number of contacts	6
Additional contacts	+ 12 additional signal contacts
Rated current	40 A
Rated voltage	690 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated current (signal)	10 A
Rated voltage conductor-earth (signal)	230 V
Rated voltage conductor-conductor (signal)	400 V
Rated impulse voltage (signal)	4 kV
Pollution degree (signal)	3
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 1 \text{ m}\Omega, \leq 3 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Wire outer diameter	$\leq 5 \text{ mm}$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 6 mm<sup>2</sup>
- ② Conductor cross-section 4 mm<sup>2</sup>
- ③ Conductor cross-section 2.5 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
DNV GL

## Details

Contact resistance Han® C crimp contact:  $\leq 1 \text{ m}\Omega$

Contact resistance Han D® crimp contact:  $\leq 3 \text{ m}\Omega$

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


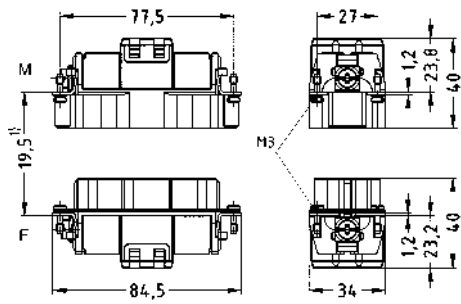
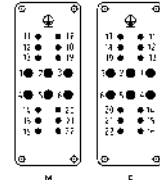

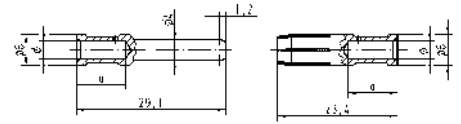

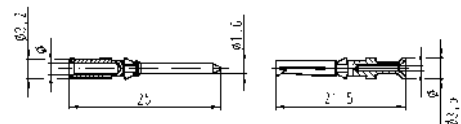
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts

**6+**

40 A 690 V 8 kV 3  
10 A 230/400 V 4 kV 3  
+ 12 additional signal contacts

Han-Com

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																					
		Male	Female																						
Han-Com®, Han® K 6/12, Crimp termination    Please order crimp contacts separately. Please order coding pins separately.	1.5 ... 6, 0.14 ... 2.5 Signal	09 38 018 3002	09 38 018 3102	 1) distance for contact max. 21 mm   Contact arrangement (view from termination side)																					
Han® C, Crimp contact, Contact surface: Silver plated  	1.5 2.5 4 6	09 32 000 6104 09 32 000 6105 09 32 000 6107 09 32 000 6108	09 32 000 6204 09 32 000 6205 09 32 000 6207 09 32 000 6208	  <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>9.5 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>9.5 mm</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>2.85 mm</td> <td>9.5 mm</td> </tr> <tr> <td>6 mm<sup>2</sup> AWG 10</td> <td>3.5 mm</td> <td>9.5 mm</td> </tr> <tr> <td>10 mm<sup>2</sup> AWG 8</td> <td>4.3 mm</td> <td>12 mm</td> </tr> </tbody> </table>	Conductor cross-section	ø	Stripping length	1.5 mm <sup>2</sup> AWG 16	1.75 mm	9.5 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	9.5 mm	4 mm <sup>2</sup> AWG 12	2.85 mm	9.5 mm	6 mm <sup>2</sup> AWG 10	3.5 mm	9.5 mm	10 mm <sup>2</sup> AWG 8	4.3 mm	12 mm			
Conductor cross-section	ø	Stripping length																							
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Han D®, Crimp contact, Contact surface: Silver plated  	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 000 6104 09 15 000 6103 09 15 000 6105 09 15 000 6102 09 15 000 6101 09 15 000 6106	09 15 000 6204 09 15 000 6203 09 15 000 6205 09 15 000 6202 09 15 000 6201 09 15 000 6206	  <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	ø	Stripping length	0.14-0.37 mm <sup>2</sup> AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup> AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup> AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup> AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup> AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	6 mm
Conductor cross-section	ø	Stripping length																							
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2.5 mm <sup>2</sup> AWG 14	2.25 mm	6 mm																							

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han D®, Crimp contact, Contact surface: Gold plated	0.14 ... 0.37	09 15 000 6124	09 15 000 6224	
	0.5	09 15 000 6123	09 15 000 6223	
	0.75	09 15 000 6125	09 15 000 6225	
	1	09 15 000 6122	09 15 000 6222	
	1.5	09 15 000 6121	09 15 000 6221	
	2.5	09 15 000 6126	09 15 000 6226	
Coding element		09 12 000 9922		

Conductor cross-section	AWG	Ø	Stripping length
0.14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm
0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm
0.75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm
1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm
1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm
2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm

## Features

- Combination of signal and power in one connector
- Axial screw termination for power area
- Screw termination for signal area

## Technical characteristics

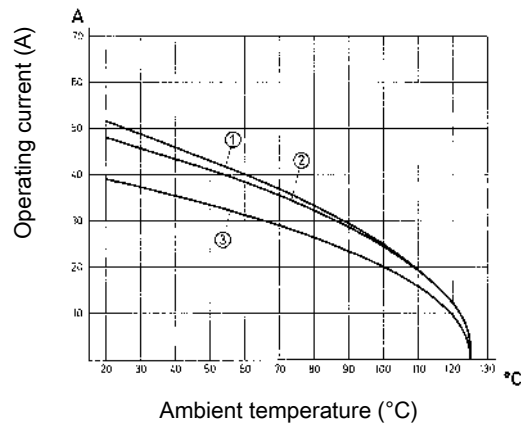
Number of contacts	6
Additional contacts	+ 12 additional signal contacts
Rated current	40 A
Rated voltage	690 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated current (signal)	10 A
Rated voltage conductor-earth (signal)	230 V
Rated voltage conductor-conductor (signal)	400 V
Rated impulse voltage (signal)	4 kV
Pollution degree (signal)	3
Rated current acc. to UL	40 A
Rated current acc. to UL (signal)	10 A
Rated current acc. to CSA	40 A
Rated current acc. to CSA (signal)	10 A
Rated voltage acc. to UL	600 V
Rated voltage acc. to UL (signal)	600 V
Rated voltage acc. to CSA	300 V
Rated voltage acc. to CSA (signal)	300 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 0.5 \text{ m}\Omega$
Contact resistance, signal area	$\leq 3 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Wire outer diameter	$\leq 6.1 \text{ mm}$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 10 mm<sup>2</sup>
- ② Conductor cross-section 6 mm<sup>2</sup>
- ③ Conductor cross-section 4 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
DNV GL

## Details

**Hoods/Housings** see chapter Han 31

**Hex key (A/F 2)** see chapter Han 90

### Remarks on the axial screw technique


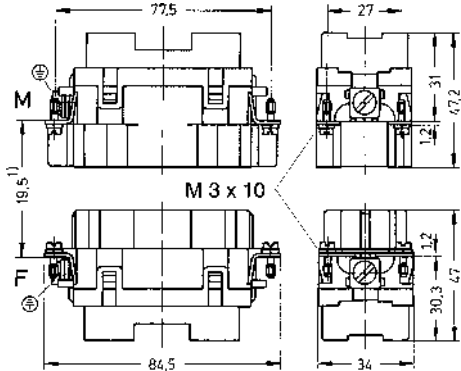

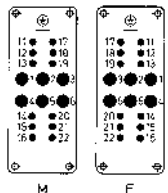
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts

# 6+

40 A 690 V 8 kV 3  
 10 A 230/400 V 4 kV 3  
 + 12 additional signal contacts

Han-Com

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																		
		Male	Female																			
Han-Com®, Han® K 6/12, Axial screw termination / screw termination, Contact surface: Silver plated 	2.5 ... 8, 0.2 ... 2.5 Signal	09 38 018 2601	09 38 018 2701	 <p>1) distance for contact max. 21 mm</p>																		
Han-Com®, Han® K 6/12, Axial screw termination / screw termination, Contact surface: Silver plated 	6 ... 10, 0.2 ... 2.5 Signal	09 38 018 2602	09 38 018 2702	 <p>Contact arrangement (view from termination side)</p> <table border="1"> <thead> <tr> <th colspan="3">Power contacts</th> </tr> <tr> <th>Conductor cross-section</th> <th>Tightening torque</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>2.5 mm<sup>2</sup></td> <td>1.5 Nm</td> <td>5 ... 6 mm</td> </tr> <tr> <td>4 mm<sup>2</sup></td> <td>1.5 Nm</td> <td>5 ... 6 mm</td> </tr> <tr> <td>6 mm<sup>2</sup></td> <td>2 Nm</td> <td>5 ... 6 mm</td> </tr> <tr> <td>10 mm<sup>2</sup></td> <td>2 Nm</td> <td>5 ... 6 mm</td> </tr> </tbody> </table> <p>Signal contacts :                      Stripping length 7.5 mm                      Tightening torque 0.5 Nm</p>	Power contacts			Conductor cross-section	Tightening torque	Stripping length	2.5 mm <sup>2</sup>	1.5 Nm	5 ... 6 mm	4 mm <sup>2</sup>	1.5 Nm	5 ... 6 mm	6 mm <sup>2</sup>	2 Nm	5 ... 6 mm	10 mm <sup>2</sup>	2 Nm	5 ... 6 mm
Power contacts																						
Conductor cross-section	Tightening torque	Stripping length																				
2.5 mm <sup>2</sup>	1.5 Nm	5 ... 6 mm																				
4 mm <sup>2</sup>	1.5 Nm	5 ... 6 mm																				
6 mm <sup>2</sup>	2 Nm	5 ... 6 mm																				
10 mm <sup>2</sup>	2 Nm	5 ... 6 mm																				



## Features

- Combination of signal and power in one connector
- Crimp termination for power and signal area
- Use of standard Han® C and Han D® contacts

## Technical characteristics

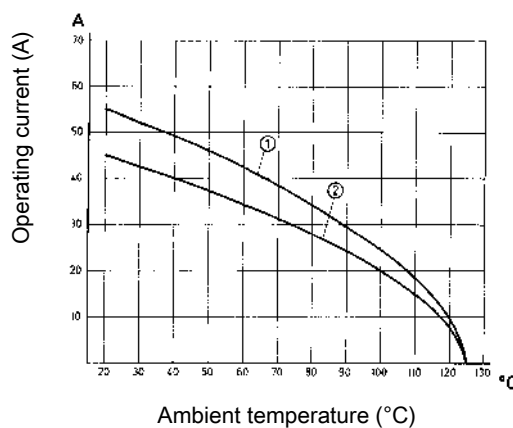
Number of contacts	6
Additional contacts	+ 36 additional signal contacts
Rated current	40 A
Rated voltage	690 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated current (signal)	10 A
Rated voltage (signal)	160 V
Rated impulse voltage (signal)	2.5 kV
Pollution degree (signal)	3
Rated current acc. to UL	40 A
Rated current acc. to UL (signal)	10 A
Rated current acc. to CSA	40 A
Rated current acc. to CSA (signal)	10 A
Rated voltage acc. to UL	600 V
Rated voltage acc. to UL (signal)	600 V
Rated voltage acc. to CSA	300 V
Rated voltage acc. to CSA (signal)	300 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤1 mΩ, ≤3 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Wire outer diameter	≤5 mm
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 6 mm<sup>2</sup>
- ② Conductor cross-section 4 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL

## Details

**Hoods/Housings** see chapter Han 31

Contact resistance Han D® crimp contact: ≤ 3 mOhm

Contact resistance Han® C crimp contact: ≤ 1 mOhm

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


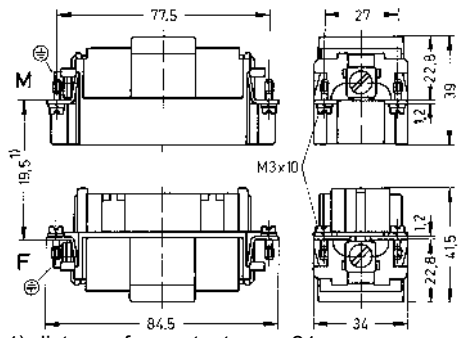
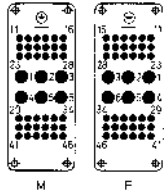
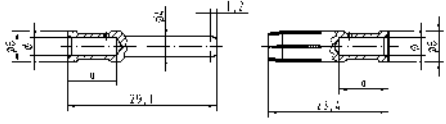

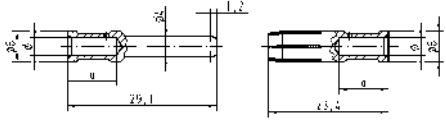

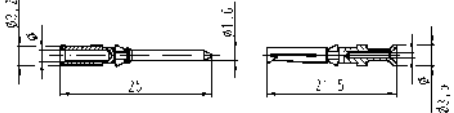
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts

# 6+

40 A 690 V 8 kV 3  
 10 A 160 V 2.5 kV 3  
 + 36 additional signal contacts

Han-Com

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																					
		Male	Female																						
Han-Com®, Han® K 6/36, Crimp termination  <p>Please order crimp contacts separately.</p>	1.5 ... 6, 0.14 ... 2.5 Signal	09 38 042 3001	09 38 042 3101	 <p>1) distance for contact max. 21 mm</p>  <p>Contact arrangement (view from termination side)</p>  <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>9.5 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>9.5 mm</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>2.85 mm</td> <td>9.5 mm</td> </tr> <tr> <td>6 mm<sup>2</sup> AWG 10</td> <td>3.5 mm</td> <td>9.5 mm</td> </tr> <tr> <td>10 mm<sup>2</sup> AWG 8</td> <td>4.3 mm</td> <td>12 mm</td> </tr> </tbody> </table>	Conductor cross-section	Ø	Stripping length	1.5 mm <sup>2</sup> AWG 16	1.75 mm	9.5 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	9.5 mm	4 mm <sup>2</sup> AWG 12	2.85 mm	9.5 mm	6 mm <sup>2</sup> AWG 10	3.5 mm	9.5 mm	10 mm <sup>2</sup> AWG 8	4.3 mm	12 mm			
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Han® C, Crimp contact, Contact surface: Silver plated 	1.5 2.5 4 6	09 32 000 6104 09 32 000 6105 09 32 000 6107 09 32 000 6108	09 32 000 6204 09 32 000 6205 09 32 000 6207 09 32 000 6208	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	Ø	Stripping length	0.14-0.37 mm <sup>2</sup> AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup> AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup> AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup> AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup> AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	6 mm
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Han D®, Crimp contact, Contact surface: Silver plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 000 6104 09 15 000 6103 09 15 000 6105 09 15 000 6102 09 15 000 6101 09 15 000 6106	09 15 000 6204 09 15 000 6203 09 15 000 6205 09 15 000 6202 09 15 000 6201 09 15 000 6206	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	Ø	Stripping length	0.14-0.37 mm <sup>2</sup> AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup> AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup> AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup> AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup> AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	6 mm
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2.5 mm <sup>2</sup> AWG 14	2.25 mm	6 mm																							

Han-Com

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																															
		Male	Female																																
Han D®, Crimp contact, Contact surface: Gold plated	0.14 ... 0.37	09 15 000 6124	09 15 000 6224	<table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	Ø	Stripping length	0.14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm	0.5	09 15 000 6123	09 15 000 6223
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2.5	09 15 000 6126	09 15 000 6226																																	
FO contact, for 1 mm plastic fibre		20 10 001 3211	20 10 001 3221	<p>20 10 001 3211 + 20 10 001 3221</p>																															

## Features

- Combination of signal and power in one connector
- Crimp termination for power and signal area
- Use of standard Han® C and Han D® contacts

## Technical characteristics

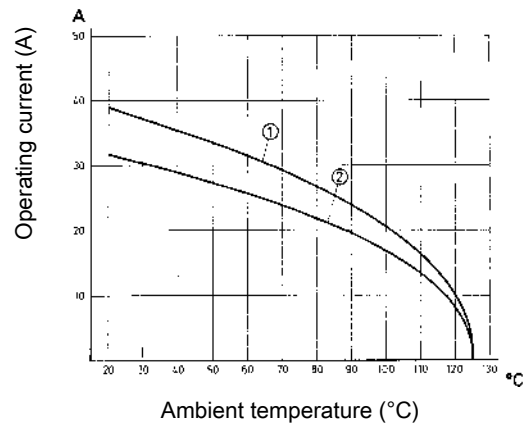
Number of contacts	12
Additional contacts	+ 2 additional signal contacts
Rated current	40 A
Rated voltage	690 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated current (signal)	10 A
Rated voltage (signal)	250 V
Rated impulse voltage (signal)	4 kV
Pollution degree (signal)	3
Rated current acc. to UL	40 A
Rated current acc. to UL (signal)	10 A
Rated current acc. to CSA	40 A
Rated current acc. to CSA (signal)	10 A
Rated voltage acc. to UL	600 V
Rated voltage acc. to UL (signal)	600 V
Rated voltage acc. to CSA	300 V
Rated voltage acc. to CSA (signal)	300 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤1 mΩ, ≤3 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Wire outer diameter	≤5 mm
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 6 mm<sup>2</sup>  
 ② Conductor cross-section 4 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL

## Details

**Hoods/Housings** see chapter Han 31

Contact resistance Han D® crimp contact: ≤ 3 mΩ

Contact resistance Han® C crimp contact: ≤ 1 mΩ

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


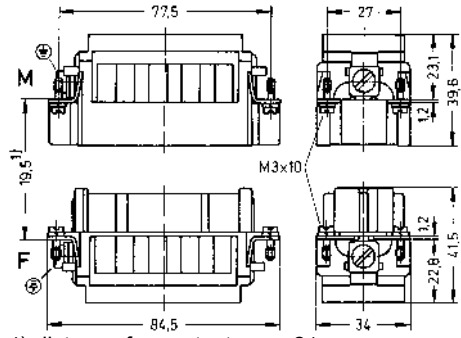
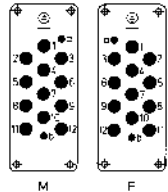
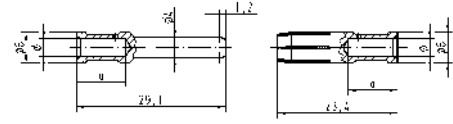

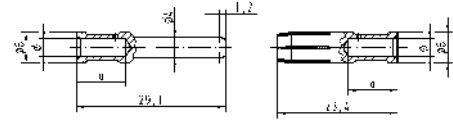

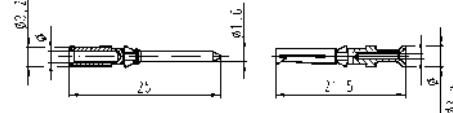
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts


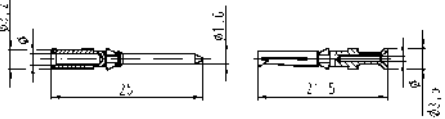


# 12+

40 A 690 V 8 kV 3  
10 A 250 V 4 kV 3  
+ 2 additional signal contacts

Han-Com

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																					
		Male	Female																						
<p>Han-Com®, Han® K 12/2, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	1.5 ... 6, 0.14 ... 2.5 Signal	09 32 012 3001	09 32 012 3101	 <p>1) distance for contact max. 21 mm</p>  <p>Contact arrangement (view from termination side)</p>  <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>9.5 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>9.5 mm</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>2.85 mm</td> <td>9.5 mm</td> </tr> <tr> <td>6 mm<sup>2</sup> AWG 10</td> <td>3.5 mm</td> <td>9.5 mm</td> </tr> <tr> <td>10 mm<sup>2</sup> AWG 8</td> <td>4.3 mm</td> <td>12 mm</td> </tr> </tbody> </table>	Conductor cross-section	ø	Stripping length	1.5 mm <sup>2</sup> AWG 16	1.75 mm	9.5 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	9.5 mm	4 mm <sup>2</sup> AWG 12	2.85 mm	9.5 mm	6 mm <sup>2</sup> AWG 10	3.5 mm	9.5 mm	10 mm <sup>2</sup> AWG 8	4.3 mm	12 mm			
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<p>Han® C, Crimp contact, Contact surface: Silver plated</p> 	1.5 2.5 4 6	09 32 000 6104 09 32 000 6105 09 32 000 6107 09 32 000 6108	09 32 000 6204 09 32 000 6205 09 32 000 6207 09 32 000 6208	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	ø	Stripping length	0.14-0.37 mm <sup>2</sup> AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup> AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup> AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup> AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup> AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	6 mm
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<p>Han D®, Crimp contact, Contact surface: Silver plated</p> 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 000 6104 09 15 000 6103 09 15 000 6105 09 15 000 6102 09 15 000 6101 09 15 000 6106	09 15 000 6204 09 15 000 6203 09 15 000 6205 09 15 000 6202 09 15 000 6201 09 15 000 6206	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	ø	Stripping length	0.14-0.37 mm <sup>2</sup> AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup> AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup> AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup> AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup> AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	6 mm
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Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)																					
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Han D®, Crimp contact, Contact surface: Gold plated 	0.14 ... 0.37	09 15 000 6124	09 15 000 6224	 <table border="1"><thead><tr><th>Conductor cross-section</th><th>Ø</th><th>Stripping length</th></tr></thead><tbody><tr><td>Ø 14-0.37 mm² AWG 26-22</td><td>0.9 mm</td><td>8 mm</td></tr><tr><td>0.5 mm² AWG 20</td><td>1.1 mm</td><td>8 mm</td></tr><tr><td>Ø 75 mm² AWG 18</td><td>1.3 mm</td><td>8 mm</td></tr><tr><td>1 mm² AWG 18</td><td>1.45 mm</td><td>8 mm</td></tr><tr><td>1.5 mm² AWG 16</td><td>1.75 mm</td><td>8 mm</td></tr><tr><td>2.5 mm² AWG 14</td><td>2.25 mm</td><td>6 mm</td></tr></tbody></table>	Conductor cross-section	Ø	Stripping length	Ø 14-0.37 mm² AWG 26-22	0.9 mm	8 mm	0.5 mm² AWG 20	1.1 mm	8 mm	Ø 75 mm² AWG 18	1.3 mm	8 mm	1 mm² AWG 18	1.45 mm	8 mm	1.5 mm² AWG 16	1.75 mm	8 mm	2.5 mm² AWG 14	2.25 mm	6 mm
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2.5	09 15 000 6126	09 15 000 6226																							
FO contact, for 1 mm plastic fibre 		20 10 001 3211	20 10 001 3221	 20 10 001 3211 + 20 10 001 3221																					

## Features

- Combination of signal and power in one connector
- Crimp termination for power and signal area
- Han® C power contacts
- Han E® power contacts
- Han D® signal contacts

## Technical characteristics

Number of contacts	18
Additional contacts	+ 18 additional signal contacts
Rated current	40 A, 16 A
Rated voltage	830 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated current (signal)	10 A
Rated voltage (signal)	250 V
Rated impulse voltage (signal)	4 kV
Pollution degree (signal)	3
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤1 mΩ, ≤3 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Specifications and approvals

EN 60664-1  
IEC 61984  
DNV GL

## Details

Contact resistance Han D® crimp contact: ≤ 3 mΩ

Contact resistance Han E® crimp contact: ≤ 1 mΩ

Contact resistance Han® C crimp contact: ≤ 1 mΩ

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


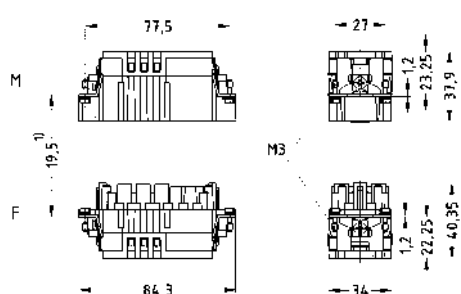
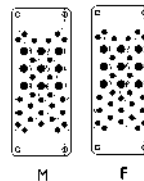

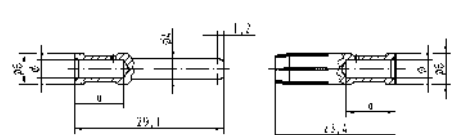

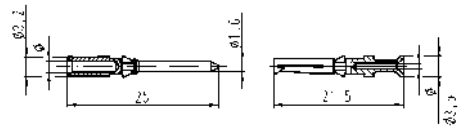
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts

# 18+


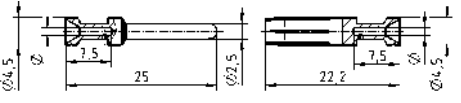
40 A 830 V 8 kV 3 16 A 830 V 8 kV 3  
 10 A 250 V 4 kV 3  
 + 18 additional signal contacts

Han-Com

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																					
		Male	Female																						
Han-Com®, Han® K 9/9/18, Crimp termination  <p>Please order crimp contacts separately.                      To ensure a preleading PE-contact under all conditions, it is necessary to use guide pins/bushes (09 33 000 9908 / 09 33 000 9909).</p>	1.5 ... 6, 0.14 ... 4, 0.14 ... 2.5 Signal	09 38 036 3001	09 38 036 3101	 <p>1) distance for contact max. 21 mm</p>  <p>Contact arrangement (view from termination side)</p>																					
Han® C, Crimp contact, Contact surface: Silver plated 	1.5 2.5 4 6	09 32 000 6104 09 32 000 6105 09 32 000 6107 09 32 000 6108	09 32 000 6204 09 32 000 6205 09 32 000 6207 09 32 000 6208	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>9.5 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>9.5 mm</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>2.85 mm</td> <td>9.5 mm</td> </tr> <tr> <td>6 mm<sup>2</sup> AWG 10</td> <td>3.5 mm</td> <td>9.5 mm</td> </tr> <tr> <td>10 mm<sup>2</sup> AWG 8</td> <td>4.3 mm</td> <td>12 mm</td> </tr> </tbody> </table>	Conductor cross-section	ø	Stripping length	1.5 mm <sup>2</sup> AWG 16	1.75 mm	9.5 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	9.5 mm	4 mm <sup>2</sup> AWG 12	2.85 mm	9.5 mm	6 mm <sup>2</sup> AWG 10	3.5 mm	9.5 mm	10 mm <sup>2</sup> AWG 8	4.3 mm	12 mm			
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Han-Com

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																										
		Male	Female																											
Han E®, Crimp contact, Contact surface: Silver plated 	0.14 ... 0.37	09 33 000 6127	09 33 000 6227	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm<sup>2</sup></td> <td>AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm<sup>2</sup></td> <td>AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar</p> <p>Stripping length 7.5 mm</p>	Conductor cross-section	Identification	0.14-0.37 mm <sup>2</sup>	AWG 26-22	no groove	0.5 mm <sup>2</sup>	AWG 20	no groove	0.75 mm <sup>2</sup>	AWG 18	1 groove*	1 mm <sup>2</sup>	AWG 18	1 groove	1.5 mm <sup>2</sup>	AWG 16	2 groove	2.5 mm <sup>2</sup>	AWG 14	3 groove	3 mm <sup>2</sup>	AWG 12	wide groove	4 mm <sup>2</sup>	AWG 12	no groove
	Conductor cross-section	Identification																												
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	0.5 mm <sup>2</sup>	AWG 20	no groove																											
	0.75 mm <sup>2</sup>	AWG 18	1 groove*																											
	1 mm <sup>2</sup>	AWG 18	1 groove																											
	1.5 mm <sup>2</sup>	AWG 16	2 groove																											
	2.5 mm <sup>2</sup>	AWG 14	3 groove																											
3 mm <sup>2</sup>	AWG 12	wide groove																												
4 mm <sup>2</sup>	AWG 12	no groove																												
0.5	09 33 000 6121	09 33 000 6220																												
0.75	09 33 000 6114	09 33 000 6214																												
1	09 33 000 6105	09 33 000 6205																												
1.5	09 33 000 6104	09 33 000 6204																												
2.5	09 33 000 6102	09 33 000 6202																												
3	09 33 000 6106	09 33 000 6206																												
4	09 33 000 6107	09 33 000 6207																												

## Features

- Combination of signal and power in one connector
- Screw termination for power and signal area

## Technical characteristics

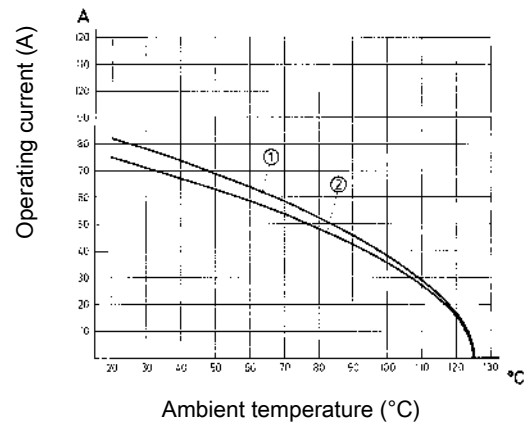
Number of contacts	4
Additional contacts	+ 8 additional signal contacts
Rated current	80 A
Rated voltage	400 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated current (signal)	16 A
Rated voltage (signal)	400 V
Rated impulse voltage (signal)	6 kV
Pollution degree (signal)	3
Rated current acc. to UL	80 A
Rated current acc. to UL (signal)	16 A
Rated current acc. to CSA	80 A
Rated current acc. to CSA (signal)	16 A
Rated voltage acc. to UL	600 V
Rated voltage acc. to UL (signal)	600 V
Rated voltage acc. to CSA	600 V
Rated voltage acc. to CSA (signal)	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 0.3 \text{ m}\Omega$
Contact resistance, signal area	$\leq 1 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polyamide (PA)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	HB
RoHS	compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 16 mm<sup>2</sup>  
 ② Conductor cross-section 10 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL

## Details

**Hoods/Housings** see chapter Han 31


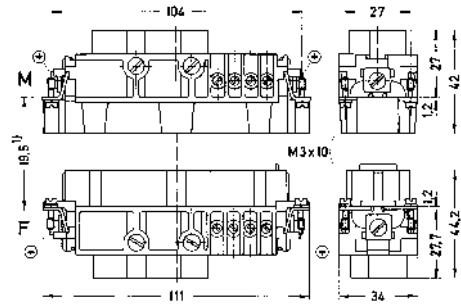
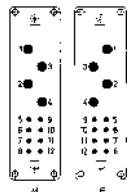
In accordance with the appropriate regulations a wire-end sleeve has to be used at clamps without wire protection (see "screw terminal", chapter Han 00).

Number of contacts

**4+**

80 A 400 V 6 kV 3  
 16 A 400 V 6 kV 3  
 + 8 additional signal contacts

Han-Com

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																								
		Male	Female																									
Han-Com®, Han® K 4/8, Screw termination, Contact surface: Silver plated 	1.5 ... 16, 0.5 ... 2.5 Signal	09 38 012 2601	09 38 012 2701	 <p>1) distance for contact max. 21 mm</p>  <p>Contact arrangement (view from termination side)</p> <table border="1"> <thead> <tr> <th colspan="3">Power contacts</th> </tr> <tr> <th>Conductor cross-section</th> <th>Tightening torque</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>1.5 mm<sup>2</sup></td> <td>1.2 Nm</td> <td>14 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>2 Nm</td> <td>14 mm</td> </tr> <tr> <td>4 mm<sup>2</sup></td> <td>3 Nm</td> <td>14 mm</td> </tr> <tr> <td>6 mm<sup>2</sup></td> <td>3 Nm</td> <td>14 mm</td> </tr> <tr> <td>10 mm<sup>2</sup></td> <td>3 Nm</td> <td>14 mm</td> </tr> <tr> <td>16 mm<sup>2</sup></td> <td>3 Nm</td> <td>14 mm</td> </tr> </tbody> </table> <p>Signal contacts :                      Stripping length 7.5 mm                      Tightening torque 0.5 Nm</p>	Power contacts			Conductor cross-section	Tightening torque	Stripping length	1.5 mm <sup>2</sup>	1.2 Nm	14 mm	2.5 mm <sup>2</sup>	2 Nm	14 mm	4 mm <sup>2</sup>	3 Nm	14 mm	6 mm <sup>2</sup>	3 Nm	14 mm	10 mm <sup>2</sup>	3 Nm	14 mm	16 mm <sup>2</sup>	3 Nm	14 mm
Power contacts																												
Conductor cross-section	Tightening torque	Stripping length																										
1.5 mm <sup>2</sup>	1.2 Nm	14 mm																										
2.5 mm <sup>2</sup>	2 Nm	14 mm																										
4 mm <sup>2</sup>	3 Nm	14 mm																										
6 mm <sup>2</sup>	3 Nm	14 mm																										
10 mm <sup>2</sup>	3 Nm	14 mm																										
16 mm <sup>2</sup>	3 Nm	14 mm																										

## Features

- Combination of signal and power in one connector
- Crimp termination for power and signal area
- Use of standard Han® TC 100 and Han E® contacts
- 16 coding options

## Technical characteristics

Number of contacts	6
Additional contacts	+ 6 additional signal contacts
Rated current	100 A
Rated voltage	690 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated current (signal)	16 A
Rated voltage (signal)	400 V
Rated impulse voltage (signal)	6 kV
Pollution degree (signal)	3
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤1 mΩ, ≤0.3 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Wire outer diameter	≤12.8 mm
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Specifications and approvals

EN 60664-1  
IEC 61984  
DNV GL

## Details

Contact resistance Han E® crimp contact: ≤ 1 mOhm

Contact resistance TC 100: ≤ 0.3 mOhm

For more technical details (i.e. number of crimping operations or crimping position) see eCatalogue

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


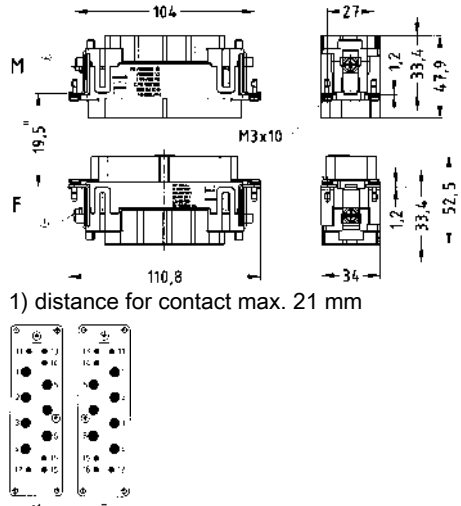
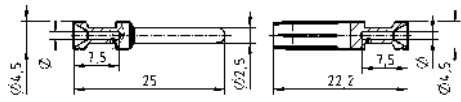

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.


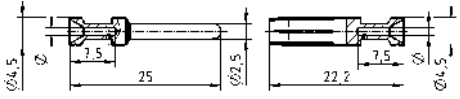
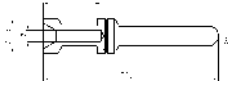

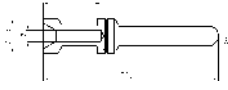

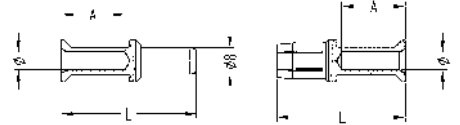

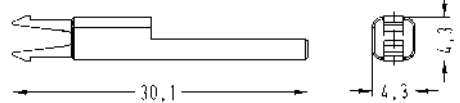
Number of contacts

# 6+

100 A 690 V 8 kV 3  
 16 A 400 V 6 kV 3  
 + 6 additional signal contacts

Han-Com

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																		
		Male	Female																			
Han-Com®, Han® K 6/6, Crimp termination  <p>Please order crimp contacts separately.                      Please order coding pins separately.</p>	10 ... 25, 0.14 ... 2.5 Signal	09 38 012 3002	09 38 012 3102	 <p>1) distance for contact max. 21 mm</p> <p>Contact arrangement (view from termination side)</p>  <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm<sup>2</sup> AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar</p> <p>Stripping length 7.5 mm</p>	Conductor cross-section	Identification	0.14-0.37 mm <sup>2</sup> AWG 26-22	no groove	0.5 mm <sup>2</sup> AWG 20	no groove	0.75 mm <sup>2</sup> AWG 18	1 groove*	1 mm <sup>2</sup> AWG 18	1 groove	1.5 mm <sup>2</sup> AWG 16	2 groove	2.5 mm <sup>2</sup> AWG 14	3 groove	3 mm <sup>2</sup> AWG 12	wide groove	4 mm <sup>2</sup> AWG 12	no groove
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Han E®, Crimp contact, Contact surface: Silver plated 	0.5 0.75 1 1.5 2.5 4	09 33 000 6121 09 33 000 6114 09 33 000 6105 09 33 000 6104 09 33 000 6102 09 33 000 6107	09 33 000 6220 09 33 000 6214 09 33 000 6205 09 33 000 6204 09 33 000 6202 09 33 000 6207																			

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																																										
		Male	Female																																											
Han E®, Crimp contact, Contact surface: Gold plated 	0.5	09 33 000 6122	09 33 000 6222	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th colspan="2">Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td colspan="2">no groove</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td colspan="2">no groove</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td colspan="2">1 groove*</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td colspan="2">1 groove</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td colspan="2">2 groove</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td colspan="2">3 groove</td> </tr> <tr> <td>3 mm<sup>2</sup> AWG 12</td> <td colspan="2">wide groove</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td colspan="2">no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar</p> <p>Stripping length 7.5 mm</p>  <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>∅</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.75-1 mm<sup>2</sup> AWG 18</td> <td>1.45 mm</td> <td>7.5 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>7.5 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>7.5 mm</td> </tr> </tbody> </table>	Conductor cross-section	Identification		0.14-0.37 mm <sup>2</sup> AWG 26-22	no groove		0.5 mm <sup>2</sup> AWG 20	no groove		0.75 mm <sup>2</sup> AWG 18	1 groove*		1 mm <sup>2</sup> AWG 18	1 groove		1.5 mm <sup>2</sup> AWG 16	2 groove		2.5 mm <sup>2</sup> AWG 14	3 groove		3 mm <sup>2</sup> AWG 12	wide groove		4 mm <sup>2</sup> AWG 12	no groove		Conductor cross-section	∅	Stripping length	0.75-1 mm <sup>2</sup> AWG 18	1.45 mm	7.5 mm	1.5 mm <sup>2</sup> AWG 16	1.75 mm	7.5 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	7.5 mm	0.75	09 33 000 6115	09 33 000 6215
	Conductor cross-section	Identification																																												
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1	09 33 000 6118	09 33 000 6218																																												
1.5	09 33 000 6116	09 33 000 6216																																												
2.5	09 33 000 6123	09 33 000 6223																																												
4	09 33 000 6119	09 33 000 6221																																												
Han E®, Crimp contact, Relay contact, Contact surface: Silver plated 	0.75 ... 1	09 33 000 6109		 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>∅</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.75-1 mm<sup>2</sup> AWG 18</td> <td>1.45 mm</td> <td>7.5 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>7.5 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>7.5 mm</td> </tr> </tbody> </table>	Conductor cross-section	∅	Stripping length	0.75-1 mm <sup>2</sup> AWG 18	1.45 mm	7.5 mm	1.5 mm <sup>2</sup> AWG 16	1.75 mm	7.5 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	7.5 mm	1.5	09 33 000 6110																												
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2.5	09 33 000 6111																																													
TC 100, Crimp contact, Contact surface: Silver plated 	10	09 11 000 6114	09 11 000 6214	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>∅</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>10 mm<sup>2</sup></td> <td>4.3</td> <td>19 mm</td> </tr> <tr> <td>16 mm<sup>2</sup></td> <td>5.5</td> <td>19 mm</td> </tr> <tr> <td>25 mm<sup>2</sup></td> <td>7</td> <td>19 mm</td> </tr> <tr> <td>35 mm<sup>2</sup></td> <td>8.2</td> <td>16 mm</td> </tr> </tbody> </table> <p>for stranded wire according to IEC 60 228 Class 5</p>	Conductor cross-section	∅	Stripping length	10 mm <sup>2</sup>	4.3	19 mm	16 mm <sup>2</sup>	5.5	19 mm	25 mm <sup>2</sup>	7	19 mm	35 mm <sup>2</sup>	8.2	16 mm	16	09 11 000 6116	09 11 000 6216																								
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35 mm <sup>2</sup>	8.2	16 mm																																												
25	09 11 000 6125	09 11 000 6225																																												
35	09 11 000 6529	09 11 000 6629																																												
Coding element 		09 12 000 9922																																												

## Features

- Combination of signal and power in one connector
- Axial screw termination for power area
- Screw termination for signal area

## Technical characteristics

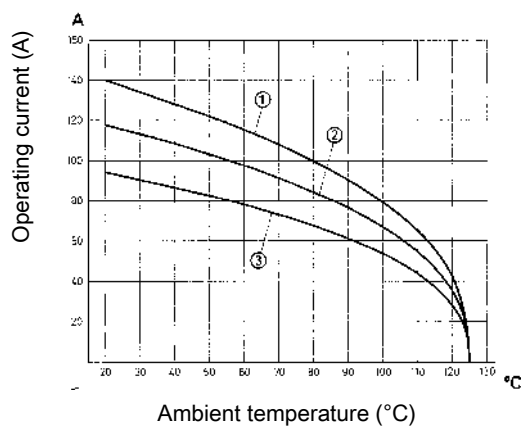
Number of contacts	6
Additional contacts	+ 6 additional signal contacts
Rated current	100 A
Rated voltage	690 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated current (signal)	16 A
Rated voltage (signal)	400 V
Rated impulse voltage (signal)	6 kV
Pollution degree (signal)	3
Rated current acc. to UL	100 A
Rated current acc. to UL (signal)	16 A
Rated current acc. to CSA	100 A
Rated current acc. to CSA (signal)	15 A
Rated voltage acc. to UL	600 V
Rated voltage acc. to UL (signal)	300 V
Rated voltage acc. to CSA	600 V
Rated voltage acc. to CSA (signal)	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤0.5 mΩ
Contact resistance, signal area	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Wire outer diameter	≤11.4 mm
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 35 mm<sup>2</sup>
- ② Conductor cross-section 25 mm<sup>2</sup>
- ③ Conductor cross-section 16 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
DNV GL

## Details

**Hoods/Housings** see chapter Han 31

**Hex key (A/F 4)** see chapter Han 90

**Adapter 3/8"** 09 99 000 0370 see chapter Han 90

### Remarks on the axial screw technique


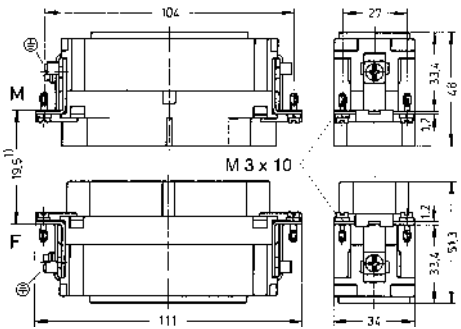
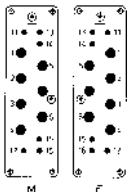
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts

**6+**

100 A 690 V 8 kV 3  
 16 A 400 V 6 kV 3  
 + 6 additional signal contacts

Han-Com

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)															
		Male	Female																
Han-Com®, Han® K 6/6, Axial screw termination / screw termination, Contact surface: Silver plated 	16 ... 35, 0.2 ... 2.5 Signal	09 38 012 2651	09 38 012 2751	 <p>1) distance for contact max. 21 mm</p>  <p>Contact arrangement (view from termination side)</p> <table border="1"> <thead> <tr> <th colspan="3">Power contacts</th> </tr> <tr> <th>Conductor cross-section</th> <th>Tightening torque</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>16 mm<sup>2</sup></td> <td>6 Nm</td> <td>13 ... 14 mm</td> </tr> <tr> <td>25 mm<sup>2</sup></td> <td>7 Nm</td> <td>13 ... 14 mm</td> </tr> <tr> <td>35 mm<sup>2</sup></td> <td>8 Nm</td> <td>13 ... 14 mm</td> </tr> </tbody> </table> <p>Signal contacts :                      Stripping length 7.5 mm                      Tightening torque 0.5 Nm</p>	Power contacts			Conductor cross-section	Tightening torque	Stripping length	16 mm <sup>2</sup>	6 Nm	13 ... 14 mm	25 mm <sup>2</sup>	7 Nm	13 ... 14 mm	35 mm <sup>2</sup>	8 Nm	13 ... 14 mm
Power contacts																			
Conductor cross-section	Tightening torque	Stripping length																	
16 mm <sup>2</sup>	6 Nm	13 ... 14 mm																	
25 mm <sup>2</sup>	7 Nm	13 ... 14 mm																	
35 mm <sup>2</sup>	8 Nm	13 ... 14 mm																	



## Features

- Axial screw termination
- No signal contacts

## Technical characteristics

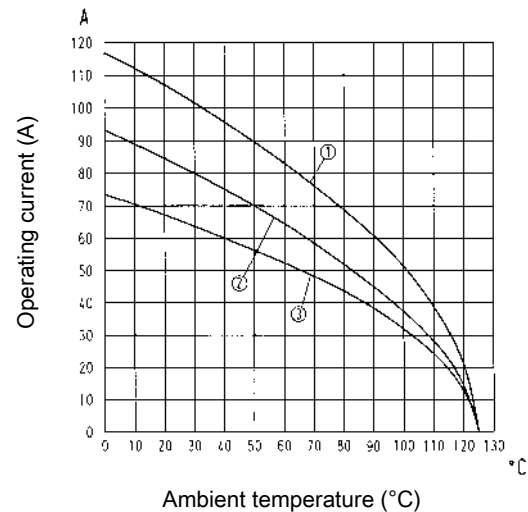
Number of contacts	8
Rated current	100 A
Rated voltage	690 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated current acc. to UL	82 A
Rated current acc. to CSA	100 A
Rated voltage acc. to UL	600 V
Rated voltage acc. to CSA	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 0.5 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Wire outer diameter	$\leq 11.4 \text{ mm}$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 25 mm<sup>2</sup>
- ② Conductor cross-section 16 mm<sup>2</sup>
- ③ Conductor cross-section 10 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
DNV GL

## Details

**Hoods/Housings** see chapter Han 31

**Hex key (A/F 4)** see chapter Han 90

**Adapter 3/8"** 09 99 000 0370 see chapter Han 90

### Remarks on the axial screw technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts

# 8+

100 A 690 V 8 kV 3

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)														
		Male	Female															
Han-Com®, Han® K 8/0, Axial screw termination, Contact surface: Silver plated	10 ... 25	09 38 008 2653	09 38 008 2753	  Contact arrangement (view from termination side) <table border="1"> <thead> <tr> <th rowspan="2">Conductor cross-section</th> <th colspan="2">Power contacts</th> </tr> <tr> <th>Tightening torque</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>10 mm<sup>2</sup></td> <td>6 Nm</td> <td>13 ... 14 mm</td> </tr> <tr> <td>16 mm<sup>2</sup></td> <td>6 Nm</td> <td>13 ... 14 mm</td> </tr> <tr> <td>25 mm<sup>2</sup></td> <td>7 Nm</td> <td>13 ... 14 mm</td> </tr> </tbody> </table>	Conductor cross-section	Power contacts		Tightening torque	Stripping length	10 mm <sup>2</sup>	6 Nm	13 ... 14 mm	16 mm <sup>2</sup>	6 Nm	13 ... 14 mm	25 mm <sup>2</sup>	7 Nm	13 ... 14 mm
Conductor cross-section	Power contacts																	
	Tightening torque	Stripping length																
10 mm <sup>2</sup>	6 Nm	13 ... 14 mm																
16 mm <sup>2</sup>	6 Nm	13 ... 14 mm																
25 mm <sup>2</sup>	7 Nm	13 ... 14 mm																

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Han® 300 A module .....	<b>Han 06.17</b>
Han® 200 A module .....	<b>Han 06.19</b>
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Han® 100 A Single module .....	<b>Han 06.27</b>
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Han® Guiding Relay module .....	<b>Han 06.47</b>
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Han E® module .....	<b>Han 06.51</b>
Han E® Screw module .....	<b>Han 06.54</b>
Han E® Protected module .....	<b>Han 06.56</b>
Han® EE module .....	<b>Han 06.58</b>
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Han® Shielded module .....	<b>Han 06.108</b>
Han® High density shielded module .....	<b>Han 06.110</b>
Han® Megabit module .....	<b>Han 06.112</b>
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Modular






## Description of the Han-Modular® system

The Han-Modular® series is designed for combining different transmission media in one connector. The multifaceted system of inserts, contacts, frames, hoods and housings as well as accessories fulfils individual customer requirements. The customer can choose between more than 100 different modules. These are suitable for different transmission media and cover various termination techniques. The patented Han-Modular® hinged frame enables the configuration of all modules in the well-accepted Han® hoods and housings.



Further additional solutions are available, e.g. suitable docking frames for drawer units. Individual customer requirements can be realised by means of the Han-Modular® series. Combining various transmission media in one single connector results in lower expenditures in installation time and production downtime. Space savings and cost savings are further benefits. The easy extension possibilities secure the ideal solution for an actual as well as future safe design.

## Highlights

-  **Combination of different connectors to one unit**
-  **Shorter installation times**
-  **Important space saving**
-  **Save money for components as well as for the whole industrial site**
-  **Future safe design due to easy extensions**

## Configuration of the Han-Modular® connectors

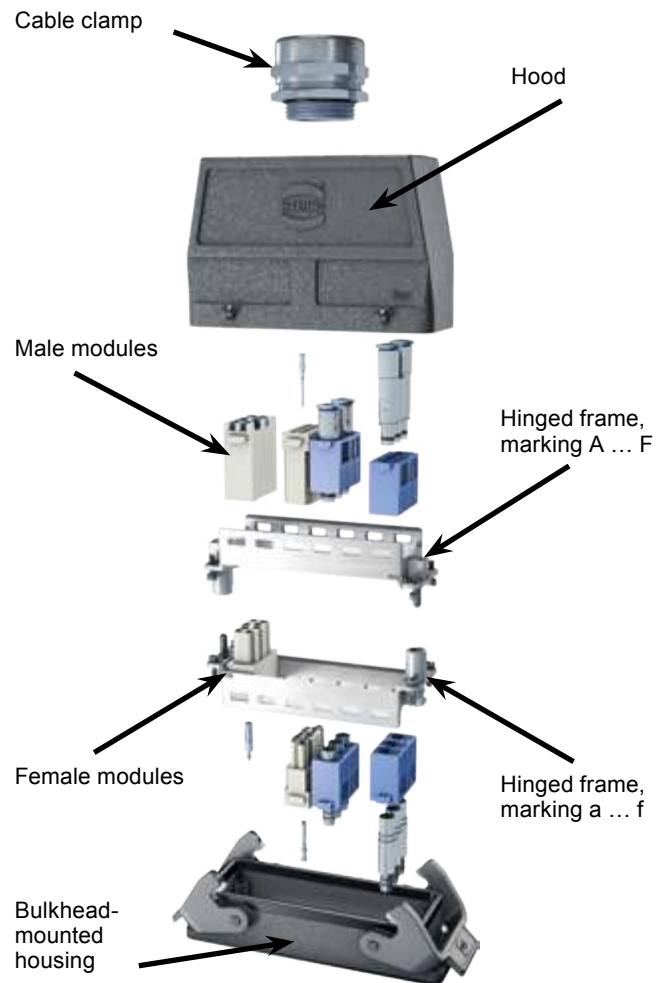
Use the Han® Online Configurator and quickly and easily assemble your Han-Modular® interface and benefit from the advantages.

- Ensure the compatibility of the components with each other
- Selection always in view through interactive 3D visualization
- Documentation via download package for the complete interface
- Working in a team using the save, load and share function

You can find the Han® configurator at: [www.harting.com/configurator](http://www.harting.com/configurator)



## System description



	Han® 200 A Axial Module	Han® 200 A PE Module	Han® 100 A Axial Module	Han® PE Module	
100 - 200 A					
	Number of contacts	1*	1*	1 x PE	
	Electrical data	200 A / 1000 V	1 x PE* 200 A	100 A / 1000 V	100 A
	Termination type	Axial screw termination	Axial screw termination	Axial screw termination	Axial screw termination
	Cross-section	40 ... 70 mm <sup>2</sup>	40 ... 70 mm <sup>2</sup>	16 ... 35 mm <sup>2</sup>	16 ... 35 mm <sup>2</sup>
	Male module (M)	09 14 001 2662	09 14 001 2667	09 14 002 2651	09 14 001 2633
Female module (F)	09 14 001 2762	09 14 001 2767	09 14 002 2751	09 14 001 2733	
40 - 70 A					
	Number of contacts	2	1 + (4 x Han E®)	2	3
	Electrical data	70 A / 1000 V	70 A / 1000 V	40 A / 1000 V	40 A / 690 V
	Termination type	Axial screw termination	Axial screw termination	Axial screw termination	Axial screw termination
	Cross-section	14 ... 22 mm <sup>2</sup>	14 ... 22 mm <sup>2</sup>	6 ... 10 mm <sup>2</sup>	6 ... 10 mm <sup>2</sup>
	Male module (M)	09 14 002 2647	09 14 005 2647	09 14 002 2602	09 14 003 2602
Female module (F)	09 14 002 2742	09 14 005 2742	09 14 002 2702	09 14 003 2702	
16 A					
	Number of contacts	6	8	5	5
	Electrical data	16 A / 500 V	16 A / 400 V	16 A / 400 V	16 A / 230/400 V
	Termination type	Quick Lock termination	Quick Lock termination	Cage clamp termination	Screw termination
	Cross-section	0.5 ... 2.5 mm <sup>2</sup>	0.5 ... 2.5 mm <sup>2</sup>	0.14 ... 2.5 mm <sup>2</sup>	0.5 ... 2.5 mm <sup>2</sup>
	Male module (M)	09 14 006 2633	09 14 008 2633	09 14 005 2616	09 14 005 2601
Female module (F)	09 14 006 2733	09 14 008 2733	09 14 005 2716	09 14 005 2701	
≤ 10 A					
	Number of contacts	12, silver plated	12, gold plated		
	Electrical data	10 A / 250 V	10 A / 250 V		
	Termination type	Quick Lock termination	Quick Lock termination		
Cross-section	0.25 ... 1.5 mm <sup>2</sup>	0.25 ... 1.5 mm <sup>2</sup>			
Male module (M)	09 14 012 2632	09 14 012 2634			
Female module (F)	09 14 012 2732	09 14 012 2734			
Axial screw termination	Hexagonal drivers	with grip	Bit 1/4"	Adapter 3/8"	Hexagonal torque set
	2 mm ( 40 A)	09 99 000 0313	09 99 000 0369		09 99 000 0834
	2.5 mm ( 70 A)		09 99 000 0375		09 99 000 0834
	4 mm (100 A)	09 99 000 0363		09 99 000 0370	09 99 000 0833
5 mm (200 A)	09 99 000 0364		09 99 000 0371	09 99 000 0833	

\* Double module, requires two places in the frame

# Summary



Modular

		Han® PE module (Including crimp contact for earthing)				
PE	Number of contacts	1 x PE	1 x PE	1 x PE		
	Cross-section	35 mm²	25 mm²	16 mm²		
	Termination type	Crimp termination, Han® HC	Crimp termination, Han® HC	Crimp termination, Han® HC		
	Male module (M)	09 14 001 3074	09 14 001 3073	09 14 001 3072		
	Female module (F)	09 14 001 3174	09 14 001 3173	09 14 001 3172		
70 - 200 A		Han® 200 A Crimp module	Han® 100 A Crimp module	Han® 100 A Single module	Han® 70 A Crimp module	
		Number of contacts	1*	2*	1	2
		Electrical data	200 A / 1000 V	100 A / 1000 V	100 A / 830 V	70 A / 1000 V
		Cross-section	25 ... 70 mm²	10 ... 35 mm²	10 ... 35 mm²	6 ... 25 mm²
		Termination type	Crimp termination, Han® HC	Crimp termination, Han® HC	Crimp termination, Han® HC	Crimp termination, Han® HC
	Male module (M)	09 14 001 3003	09 14 002 3051	09 14 001 3031	09 14 002 3041	
	Female module (F)	09 14 001 3103	09 14 002 3151	09 14 001 3131	09 14 002 3141	
40 A		Han® 40 A Crimp module	Han® C module	Han® CC module	Han® CD module	
		Number of contacts	2	3	4	3 + 4
		Electrical data	40 A / 1000 V	40 A / 690 V	40 A / 830 V	40 A + 10 A / 830 V
		Cross-section	1.5 ... 10 mm²	1.5 ... 6 mm²	1.5 ... 6 mm²	0.14 ... 6 mm²
		Termination type	Crimp termination, Han® C	Crimp termination, Han® C	Crimp termination, Han® C	Crimp, Han® C + Han D®
	Male module (M)	09 14 002 3002	09 14 003 3001	09 14 004 3041	09 14 007 3001	
	Female module (F)	09 14 002 3102	09 14 003 3101	09 14 004 3141	09 14 007 3101	
16 A		Han E® module	Han® EE module	Han® EEE module	Han E® Protected module	
		Number of contacts	6	8	20*	6
		Electrical data	16 A / 500 V	16 A / 400 V	16 A / 500 V	16 A / 830 V
		Cross-section	0.14 ... 4 mm²	0.14 ... 4 mm²	0.14 ... 4 mm²	0.14 ... 4 mm²
		Termination type	Crimp termination, Han E®	Crimp termination, Han E®	Crimp termination, Han E®	Crimp termination, Han E®
	Male module (M)	09 14 006 3001	09 14 008 3001	09 14 020 3001	09 14 006 3041	
	Female module (F)	09 14 006 3101	09 14 008 3101	09 14 020 3101	09 14 006 3141	
≤ 10 A		Han DD® module	Han® DDD module	Han DD® double module	Han DD® Quad module	
		Number of contacts	12	17	36*	42*
		Electrical data	10 A / 250 V	10 A / 150 V	10 A / 400 V	10 A / 150 V
		Cross-section	0.14 ... 2.5 mm²	0.14 ... 2.5 mm²	0.14 ... 2.5 mm²	0.14 ... 2.5 mm²
		Termination type	Crimp termination, Han D®	Crimp termination, Han D®	Crimp termination, Han D®	Crimp termination, Han D®
	Male module (M)	09 14 012 3002	09 14 017 3001	09 14 036 3002	09 14 042 3001	
	Female module (F)	09 14 012 3102	09 14 017 3101	09 14 036 3102	09 14 042 3101	
Signal + Shielded		Han® High Density module	Han® Full High Density module	Han® Shielded module Basic	Han® Shielded Power module	
		Number of contacts	25	36	27 + shielding	4 + 2 + shielding
		Electrical data	4 A / 50 V	4 A / 32 V	4 A / 32 V	16 A / 400 V
		Cross-section	0.08 ... 0.52 mm²	0.14 ... 0.5 mm²	0.09 ... 0.5 mm²	0.14 ... 4 mm²
		Termination type	Crimp termination, D-Sub	Crimp termination, D-Sub	Crimp termination, D-Sub	Crimp, Han E® + Han D®
	Male module (M)	09 14 025 3001	09 14 036 3001	09 14 027 3022	09 14 006 3021	
	Female module (F)	09 14 025 3101	09 14 036 3101	09 14 027 3122	09 14 006 3121	

\* Double module, requires two places in the frame



# Summary



Modu-  
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Han® RJ45 module	Han® RJ45 module	for patch cable	for IDC	for patch cable	for IDC and preLink
	- 8 contacts - cat. 6 <sub>A</sub> - 10 Gbit/s				
	Part numbers	Male module (M) 09 14 001 4623	Male module (M) 09 14 001 4623	Female module (F) 09 14 001 4721	Female module (F) 09 14 001 4722
		Adapter for patch cable: 09 14 000 9966	RJ Industrial IDC: 09 45 400 1560		RJ45 female IDC: 09 14 545 1561
Patch cable cat. 6: 09 47 474 71xx				RJ45 female preLink: 09 14 008 4720	
Han-Quintax® Modules		Han-Quintax®	Han® High Density Quintax	Han D® Coax	Han E® Coax
	Quintax modul				
	Number of contacts	2 x 4*	2 x 8*	2 x Coax*	2 x Coax*
	Male module (M)	09 14 002 3004	09 14 002 3004	09 14 002 3004	09 14 002 3004
	Female module (F)	09 14 002 3104	09 14 002 3104	09 14 002 3104	09 14 002 3104
	Insert (Cable Ø ≤ 9.5 mm)				
	Data rate	100 Mbit/s (cat. 5e)	100 Mbit/s (cat. 5e)	≤ 500 Mhz / 75 Ω	≤ 500 Mhz / 50 Ω
	Electrical data	10 A / 50 V	5 A / 50 V	10 A / 50 V	16 A / 50 V
	Cross-section	0.14 ... 2.5 mm <sup>2</sup>	0.09 ... 0.52 mm <sup>2</sup>	0.14 ... 2.5 mm <sup>2</sup>	0.14 ... 4 mm <sup>2</sup>
	Termination type	Crimp termination, Han D®	Crimp termination, D-Sub	Crimp termination, Han D®	Crimp termination, Han E®
Male insert (M)	09 15 004 3013	09 15 008 3013	09 15 001 3013	09 15 001 3023	
Female insert (F)	09 15 004 3113	09 15 008 3113	09 15 001 3113	09 15 001 3123	
PE shielding termination	Optional shielding termination to the hinged frame with the aid of Han-Quintax® metal adapter 09 14 000 9915				
Han® GigaBit – Han® MegaBit Modules		Han® GigaBit module	Han® MegaBit module with 2 cable entries	Han® MegaBit module with 1 cable entry	Han® Shielded Module
	Adapter Module				
	Male module (M)	09 14 001 3011	09 14 001 3011	09 14 001 3011	09 14 001 3011
	Female module (F)	09 14 001 3111	09 14 001 3111	09 14 001 3111	09 14 001 3111
	Insert (Cable Ø ≤ 14 mm)				
	Number of contacts	8	2 x 4	8	20
	Data rate	10 Gbit/s (cat. 6 <sub>A</sub> )**	2 x 100 Mbit/s (cat. 5e)	1 Gbit/s (cat. 5e)	
	Electrical data	5 A / 50 V	10 A / 50 V	10 A / 50 V	4 A / 32 V
	Cross-section	0.09 ... 0.52 mm <sup>2</sup>	0.14 ... 2.5 mm <sup>2</sup>	0.14 ... 2.5 mm <sup>2</sup>	0.09 ... 0.52 mm <sup>2</sup>
	Termination type	Crimp termination, D-Sub	Crimp termination, Han D®	Crimp termination, Han D®	Crimp termination, D-Sub
Shielding termination	Crimp flange	2 x crimp flange	Crimp flange	Crimp flange	
Male insert (M)	09 14 008 3011	09 14 008 3016	09 14 008 3021	09 14 020 3013	
Female insert (F)	09 14 008 3111	09 14 008 3116	09 14 008 3121	09 14 020 3113	
	with PE shielding termination	with PE shielding termination	with PE shielding termination		
Male insert (M)	09 14 008 3012	09 14 008 3017	09 14 008 3022		
Female insert (F)	09 14 008 3112	09 14 008 3117	09 14 008 3122		
Serial Bus Modules		Han D-Sub module	Han® USB module	Han® FireWire module	Han® ID CAN module
	Number of contacts	9 + shielding	8	6	7
	Data rate	12 Mbit/s (Profibus)	5 Gbit/s (USB 3.0)	400 Mbit/s (IEEE 1394a)	1 Mbit/s (CAN bus)
	Electrical data	5 A / 50 V	1 A / 50 V	1 A / 50 V	24 V
	Cross-section	0.09 ... 0.52 mm <sup>2</sup>			0.13 ... 1.5 mm <sup>2</sup>
Termination type	Crimp termination, D-Sub	USB patch cable	FireWire patch cable	Cage clamp termination	
Male module (M)	09 14 009 3001	09 14 001 4601	09 14 001 4611	09 80 015 0100	
Female module (F)	09 14 009 3101	09 14 001 4703	09 14 001 4711	09 80 115 0200	
* Double module, requires two places in the frame ** Cat 7 <sub>A</sub> version also available					

Han  
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7

Modular

		Han® Multi Module (for D-Sub coaxial contacts)		Han® Multi Module (for DIN 41626 coaxial contacts)	
Coaxial Modules					
	Number of contacts	4	4	12*	12*
	Male module (M)	09 14 004 4501	09 14 004 4501	09 14 012 4501	09 14 012 4501
	Female module (F)	09 14 004 4513	09 14 004 4513	09 14 012 4512	09 14 012 4512
	Coaxial contacts (≤ 2 GHz)				
	Impedance	75 Ω	50 Ω	75 Ω	50 Ω
	Coaxial cable	RG179, RG187	RG174, RG188, RG316	RG179, RG187	RG174, RG188, RG316
	Termination type	Crimp /crimp termination	Crimp /crimp termination	Solder /crimp termination	Solder /crimp termination
Male contact	09 69 282 5230	09 69 282 5140	09 14 000 6221	09 14 000 6211	
Female contact	09 69 182 5230	09 69 182 5140	09 14 000 6121	09 14 000 6111	
Optical Modules		Han® LC module	Han® SC module	Han® Multi module	Han® Multi module
	Number of contacts	6	4	4	12*
	Male module (M)	09 14 006 4701	09 14 004 4701	09 14 004 4501	09 14 012 4501
	Female module (F)	09 14 006 4711	09 14 004 4711	09 14 004 4512	09 14 012 4512
	Contacts				
	1 mm POF		20 10 001 5211	Male: 20 10 001 4211 Female: 20 10 001 4221	Male: 20 10 001 4211 Female: 20 10 001 4221
	1 mm POF Fast assembly termination		20 10 001 5217		
	SI-Fibre 200 / 230 µm Multi-Mode		20 10 230 5211	Male: 20 10 230 4211 Female: 20 10 230 4221	Male: 20 10 230 4211 Female: 20 10 230 4221
	GI-Fibre 50-62,5 / 125 µm Multi-Mode	20 10 125 8211	20 10 125 5211	Male: 20 10 125 4212 Female: 20 10 125 4222	Male: 20 10 125 4212 Female: 20 10 125 4222
GI-Fibre 9 / 125 µm Single-Mode	20 10 125 8220	20 10 125 5220			
Pneumatic Modules	Pneumatic contacts (max. 10 bar)				Pneumatic module
	For tube outer diameter				
	Tube-Ø	6 mm OD	4 mm OD	3 mm OD	
	Male contact	09 14 000 6356	09 14 000 6354	09 14 000 6353	
	Female without shut-off	09 14 000 6456	09 14 000 6454	09 14 000 6453	
	Female with shut-off	09 14 000 6466	09 14 000 6464	09 14 000 6463	
	For tube inner diameter				
	Tube-Ø	6 mm ID	4 mm ID	3 mm ID	male module (M) 09 14 003 3501
	Male contact	09 14 000 6306	09 14 000 6304	09 14 000 6303	
	Female without shut-off	09 14 000 6406	09 14 000 6404	09 14 000 6403	Female module (F) 09 14 003 3501
Female with shut-off	09 14 000 6416	09 14 000 6414	09 14 000 6413		
Further Modules		Han® HV module 40A	Han® HV Single module	Han-Eco® PE module for Han-Eco® hoods/housings only	Han® Dummy module to fill-up empty module places
	Number of contacts	2*	2	1 x PE	
	Electrical data	40 A / 2900 / 5000 V	16 A / 2500 V		
	Cross-section	1.5 ... 10 mm²	0.14 ... 4 mm²	1.5 ... 16 mm²	
Termination type	Crimp termination, Han C®	Crimp termination, Han E®	Screw termination		
Male module (M)	09 14 002 3023	09 14 002 3025	19 41 001 2600	09 14 000 9950	
Female module (F)	09 14 002 3123	09 14 002 3125	19 41 001 2700		
* Double module, requires two places in the frame					

## Features

- Suitable for more than 100 different modules
- Quick and easy assembly supported by an audible “Click”
- Very robust mechanical characteristics
- Modules can be assembled/removed without tools
- Two leading PE contacts

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (frames)	Zinc die-cast, Stainless steel
RoHS	compliant with exemption

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
DNV GL

## Details

Both different markings must be used for one connector!

Conductor cross-section PE (power side) 4 ... 10 mm<sup>2</sup>

Conductor cross-section 10 mm<sup>2</sup> only with ferrule crimping tool  
09 99 000 0374

Conductor cross-section PE (signal side) 1 ... 2.5 mm<sup>2</sup>

**Locking element** 09 14 000 9960 see accessories in chapter  
Han 06

Modular



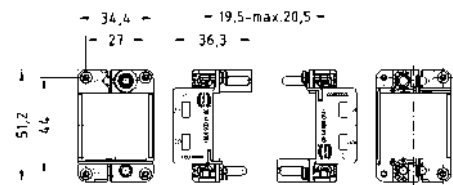
Identification

Part number

Drawing  
(dimensions in mm)

Han-Modular®,  
Hinged frame plus,  
for 2 modules,  
A ... B

09 14 006 0361


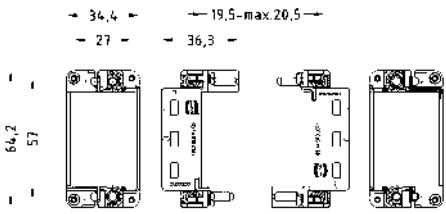



Han-Modular®,  
Hinged frame plus,  
for 2 modules,  
a ... b

09 14 006 0371





Identification	Part number	Drawing (dimensions in mm)
<p>Han-Modular®, Hinged frame plus, for 3 modules, A ... C</p> 	<p>09 14 010 0361</p>	
<p>Han-Modular®, Hinged frame plus, for 3 modules, a ... c</p> 	<p>09 14 010 0371</p>	

Modular



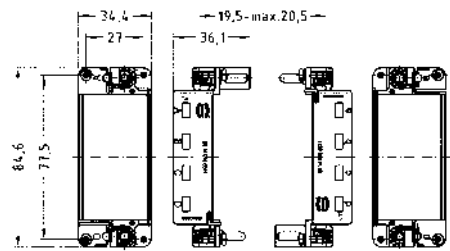
Identification

Part number

Drawing  
(dimensions in mm)

Han-Modular®,  
Hinged frame plus,  
for 4 modules,  
A ... D

09 14 016 0361


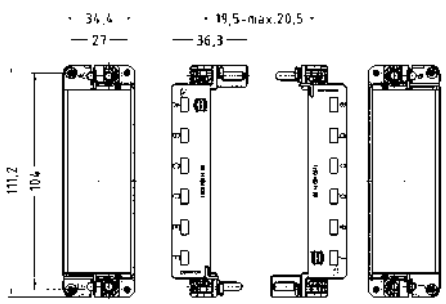



Han-Modular®,  
Hinged frame plus,  
for 4 modules,  
a ... d


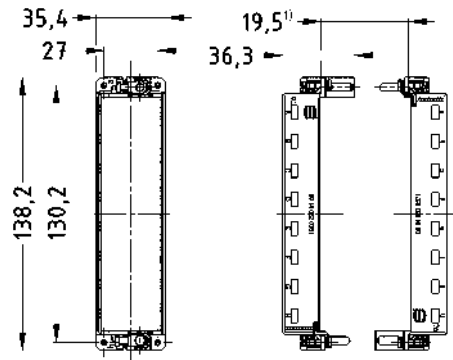
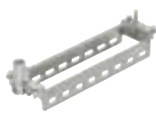
09 14 016 0371





Identification	Part number	Drawing (dimensions in mm)
<p>Han-Modular®, Hinged frame plus, for 6 modules, A ... F</p> 	<p>09 14 024 0361</p>	
<p>Han-Modular®, Hinged frame plus, for 6 modules, a ... f</p> 	<p>09 14 024 0371</p>	

Modular

Identification	Part number	Drawing (dimensions in mm)
<p>Han-Modular®, Hinged frame plus, for 8 modules, A ... H</p> 	<p>09 14 032 0361</p>	 <p>1) distance for contact max. 20.5 mm</p>
<p>Han-Modular®, Hinged frame plus, for 8 modules, a ... h</p> 	<p>09 14 032 0371</p>	



Number of contacts

# 1

Modular

## Features

- PE module to connect large cable diameters within the Han-Modular® hinged frames
- Electrically conductive connection of the PE contact to the hinged frames and the hoods and housings acc. to EN 61984
- Pre-leading and robust 100 A PE contact
- Suitable for the connection of standard power cables even with large cross-sections (no special cables with reduced PE necessary)
- Crimp- and axial module are compatible modules

## Technical characteristics

Number of contacts	1
Contact resistance	≤0.3 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Zinc die-cast, nickel-plated
Material (contacts)	Copper alloy
RoHS	compliant with exemption

## Specifications and approvals

IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076

## Details

Short-time withstand current: 1920 A for 1 second (acc. to IEC 60947-7-2)

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)										
		Male	Female											
Han-Modular®, Han® PE module, Crimp termination, Pack contents: 2 PE module halves, 1 contact pressure plate, 1 crimp contact Contact surface: Silver plated	10	09 14 001 3071	09 14 001 3171											
	16	09 14 001 3072	09 14 001 3172											
	25	09 14 001 3073	09 14 001 3173											
	35	09 14 001 3074	09 14 001 3174											
				Stripping length <table border="1"> <tr> <td>mm<sup>2</sup></td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> </tr> <tr> <td>mm</td> <td>19</td> <td>19</td> <td>19</td> <td>16</td> </tr> </table>	mm <sup>2</sup>	10	16	25	35	mm	19	19	19	16
mm <sup>2</sup>	10	16	25	35										
mm	19	19	19	16										

Number of contacts

# 1

Modular

## Features

- PE module to connect large cable diameters within the Han-Modular® hinged frames
- Electrically conductive connection of the PE contact to the hinged frames and the hoods and housings acc. to EN 61984
- Pre-leading and robust 100 A PE contact
- Suitable for the connection of standard power cables even with large cross-sections (no special cables with reduced PE necessary)
- Crimp- and axial module are compatible modules

## Technical characteristics

Number of contacts	1
Contact resistance	≤0.3 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Zinc die-cast, nickel-plated
Material (contacts)	Copper alloy
RoHS	compliant with exemption

## Specifications and approvals

IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076

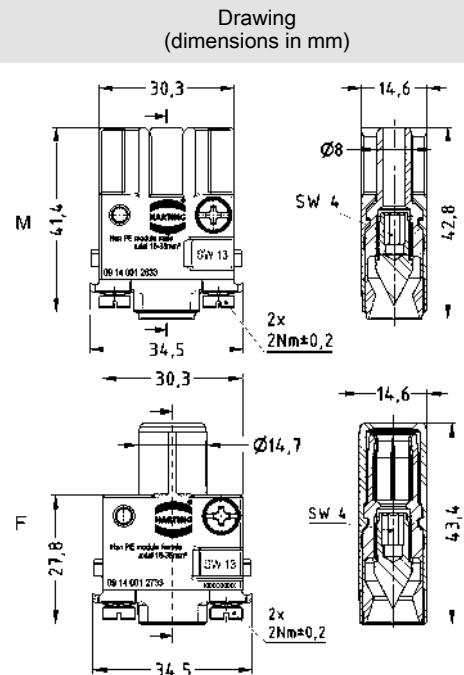
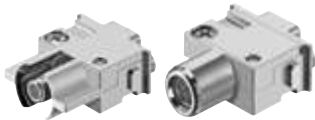
## Details

### Remarks on the axial screw technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Short-time withstand current: 1920 A for 1 second (acc. to IEC 60947-7-2)

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	
		Male	Female
Han-Modular®, Han® PE module, Axial screw termination, Pack contents: PE module with pre-assembled axial screw contact Contact surface: Silver plated	10 ... 25	09 14 001 2632	09 14 001 2732
	16 ... 35	09 14 001 2633	09 14 001 2733
	22 ... 38	09 14 001 2634	09 14 001 2734



Stripping length 13 mm

Tightening torque

mm <sup>2</sup>	10	16	25	35
Nm	6	6	7	8

## Features

- Power module for big wire gauges up to 120 mm<sup>2</sup>
- High rated voltage up to 1300 V
- IP20 protection for female and male module (by using male contacts with protective cap)
- Compatible to the Han® 200 A crimp module
- Short and space saving contacts
- Easy removal of the contacts

## Technical characteristics

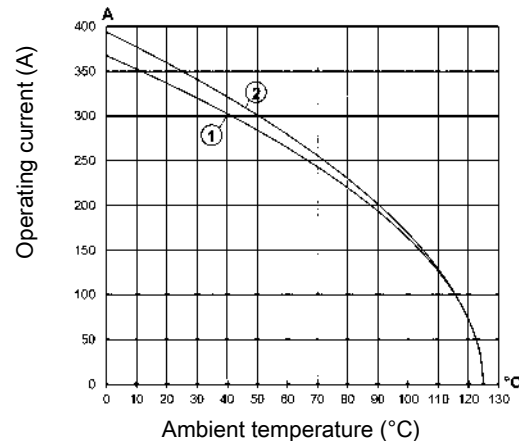
Number of contacts	1
Rated current	300 A
Rated voltage	1000 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated voltage	1000 V AC, 1300 V DC
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤0.3 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



① 24 B hoods/housings with 3 modules Conductor cross-section 95 mm<sup>2</sup>

② 24 B hoods/housings with 3 modules Conductor cross-section 120 mm<sup>2</sup>

## Specifications and approvals

EN 50124-1  
EN 60664-1  
IEC 61984

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


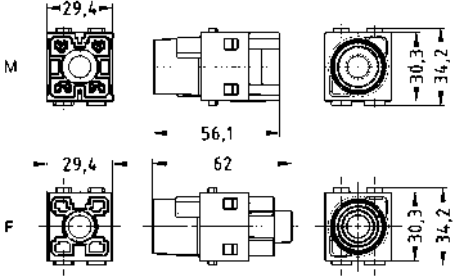

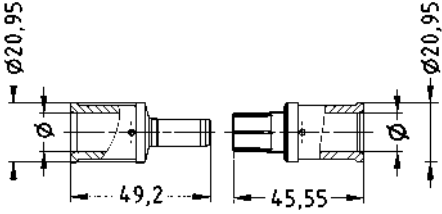
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts

# 1

300 A 1.000 V 8 kV 3

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)									
		Male	Female										
Han-Modular®, Han® 300 A module, Crimp termination  <p>Please order crimp contacts separately.</p>	95 ... 120	09 14 001 3004	09 14 001 3104										
Crimp contact, Contact surface: Silver plated 	95 120	09 11 000 7536 09 11 000 7537	09 11 000 6636 09 11 000 6637		 <table border="1"> <thead> <tr> <th>Wire gauge</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>95 mm<sup>2</sup></td> <td>13.55 mm</td> <td>22.5 mm</td> </tr> <tr> <td>120 mm<sup>2</sup></td> <td>15.55 mm</td> <td>22.5 mm</td> </tr> </tbody> </table>	Wire gauge	Ø	Stripping length	95 mm <sup>2</sup>	13.55 mm	22.5 mm	120 mm <sup>2</sup>	15.55 mm
Wire gauge	Ø	Stripping length											
95 mm <sup>2</sup>	13.55 mm	22.5 mm											
120 mm <sup>2</sup>	15.55 mm	22.5 mm											

Number of contacts

# 1

200 A 1.000 V 8 kV 3

Modular

## Features

- Power module for big cross-sections up to 70 mm<sup>2</sup>
- High rated voltage up to 1300 V
- IP20 protection for female and male module (by using male contacts with protective cap)
- Compatible to the Han<sup>®</sup> 300 A module
- Easy removal of the contacts

## Technical characteristics

Number of contacts	1
Rated current	200 A
Rated voltage	1000 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated voltage	1000 V AC, 1300 V DC
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤0.3 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Specifications and approvals

EN 50124-1  
EN 60664-1  
IEC 61984  
DNV GL

## Details

### Attention

The TC 200 screw contacts are intended for connection to busbars and, due to their design, are not touch-protected in the connection area.


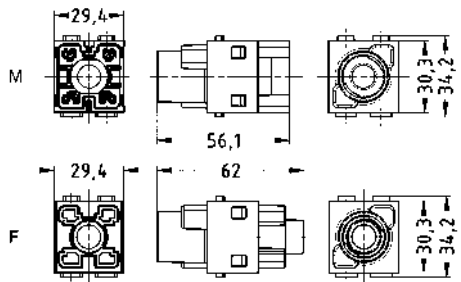

The user must ensure that the clearance and creepage distances of the TC 200 screw contacts are maintained.

For more technical details (i.e. number of crimping operations or crimping position) see eCatalogue



**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)															
		Male	Female																
Han-Modular <sup>®</sup> , Han <sup>®</sup> 200 A module, Crimp termination   Please order crimp contacts separately.	16 ... 70	09 14 001 3003	09 14 001 3103																
TC 200, Crimp contact, Contact surface: Silver plated  	16 25 35 50 70	09 11 000 6150 09 11 000 6120 09 11 000 6121 09 11 000 6122 09 11 000 6123	09 11 000 6250 09 11 000 6220 09 11 000 6221 09 11 000 6222 09 11 000 6223	<table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length A</th> </tr> </thead> <tbody> <tr> <td>25 mm<sup>2</sup></td> <td>7</td> <td>19 mm</td> </tr> <tr> <td>35 mm<sup>2</sup></td> <td>8.2</td> <td>20 mm</td> </tr> <tr> <td>50 mm<sup>2</sup></td> <td>10</td> <td>22.5 mm</td> </tr> <tr> <td>70 mm<sup>2</sup></td> <td>11.5</td> <td>22.5 mm</td> </tr> </tbody> </table> <p>for stranded wire according to IEC 60 228 Class 5</p>	Conductor cross-section	ø	Stripping length A	25 mm <sup>2</sup>	7	19 mm	35 mm <sup>2</sup>	8.2	20 mm	50 mm <sup>2</sup>	10	22.5 mm	70 mm <sup>2</sup>	11.5	22.5 mm
Conductor cross-section	ø	Stripping length A																	
25 mm <sup>2</sup>	7	19 mm																	
35 mm <sup>2</sup>	8.2	20 mm																	
50 mm <sup>2</sup>	10	22.5 mm																	
70 mm <sup>2</sup>	11.5	22.5 mm																	

Modu-  
lar

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)															
		Male	Female																
TC 200, Crimp contact, With protective insert, Contact surface: Silver plated	25	09 11 000 7120		<table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length A</th> </tr> </thead> <tbody> <tr> <td>25 mm<sup>2</sup></td> <td>7</td> <td>19 mm</td> </tr> <tr> <td>35 mm<sup>2</sup></td> <td>8.2</td> <td>20 mm</td> </tr> <tr> <td>50 mm<sup>2</sup></td> <td>10</td> <td>22.5 mm</td> </tr> <tr> <td>70 mm<sup>2</sup></td> <td>11.5</td> <td>22.5 mm</td> </tr> </tbody> </table> for stranded wire according to IEC 60 228 Class 5	Conductor cross-section	ø	Stripping length A	25 mm <sup>2</sup>	7	19 mm	35 mm <sup>2</sup>	8.2	20 mm	50 mm <sup>2</sup>	10	22.5 mm	70 mm <sup>2</sup>	11.5	22.5 mm
	Conductor cross-section	ø	Stripping length A																
	25 mm <sup>2</sup>	7	19 mm																
	35 mm <sup>2</sup>	8.2	20 mm																
50 mm <sup>2</sup>	10	22.5 mm																	
70 mm <sup>2</sup>	11.5	22.5 mm																	
35	09 11 000 7121																		
50	09 11 000 7122																		
70	09 11 000 7123																		
  TC 200, Screw contact, M8, Contact surface: Silver plated	70	09 11 000 6124	09 11 000 6224																
																			

Number of contacts

# 1

200 A 1.000 V 8 kV 3

Modu-  
lar

## Features

- No special tools required for axial-screw termination
- Power module for big cross-sections up to 70 mm<sup>2</sup>
- Can be used e.g. as 3 + PE connector in the Han® 32 B housing.
- Not compatible to the Han® 200 A crimp module

## Technical characteristics

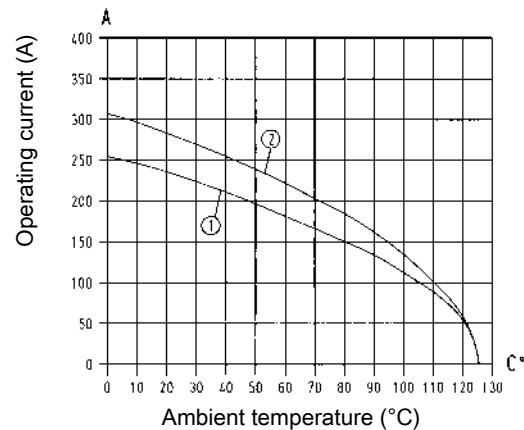
Number of contacts	1
Rated current	200 A
Rated voltage	1000 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤0.2 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① 24 B hoods/housings with 3 modules Conductor cross-section 50 mm<sup>2</sup>
- ② 24 B hoods/housings with 3 modules Conductor cross-section 70 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
DNV GL  
UL 2237 PVVA2.E318390  
CSA-C22.2 No. 182.3 PVVA8.E318390


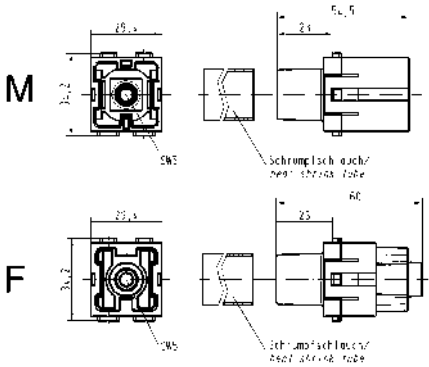
## Details

### Remarks on the axial screw technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Contact resistance axial screw contact: ≤ 0.2 mOhm

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han-Modular®, Han® 200 A module, Axial screw termination, Contact surface: Silver plated 	25 ... 40 40 ... 70	09 14 001 2663 09 14 001 2662	09 14 001 2763 09 14 001 2762	 <p>                         Stripping length 16 mm                          Tightening torque                          8 Nm @ 25 ... 40 mm<sup>2</sup>, 9 Nm @ 40 mm<sup>2</sup>,                          10 Nm @ 70 mm<sup>2</sup> </p>



## Technical characteristics

Number of contacts	1
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 0.2 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Specifications and approvals


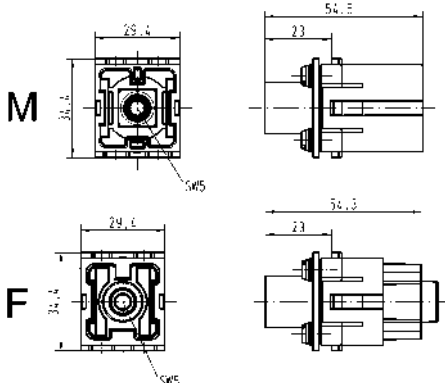
EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
DNV GL  
UL 2237 PVVA2.E318390  
CSA-C22.2 No. 182.3 PVVA8.E318390

Modu-  
lar

Number of contacts

# 1

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han-Modular®, Han® 200 A PE module, Axial screw termination, Contact surface: Silver plated 	25 ... 40 40 ... 70	09 14 001 2668 09 14 001 2667	09 14 001 2768 09 14 001 2767	 <p>                             Hex key with grip 09 99 000 0364                              Adapter 3/8" 09 99 000 0371                              See chapter Han 90                              Stripping length 16 mm                              Tightening torque                              8 Nm @ 25 ... 40 mm<sup>2</sup>, 9 Nm @ 40 mm<sup>2</sup>,                              10 Nm @ 70 mm<sup>2</sup> </p>

## Features

- Crimp- and axial module are compatible modules
- Contacts can be unlocked from the mating side

## Technical characteristics

Number of contacts	2
Rated current	100 A
Rated voltage	1000 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤0.3 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

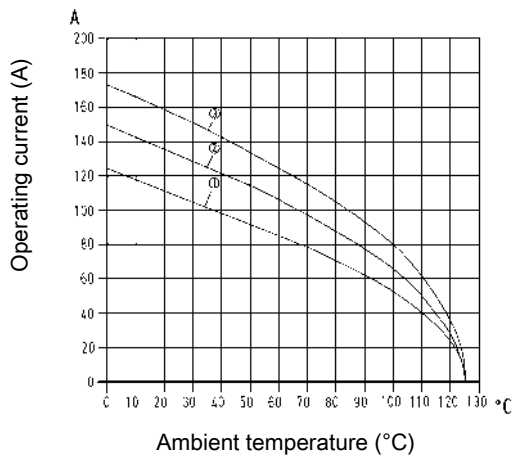
## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2

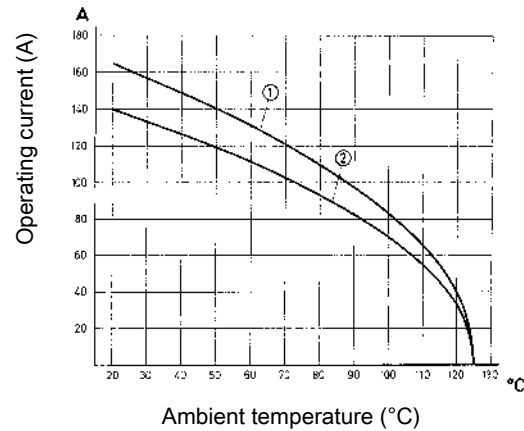
#### Crimp termination



- ① 24 B hoods/housings with 3 modules Conductor cross-section 16 mm<sup>2</sup>
- ② 24 B hoods/housings with 3 modules Conductor cross-section 25 mm<sup>2</sup>
- ③ 24 B hoods/housings with 3 modules Conductor cross-section 35 mm<sup>2</sup>

## Derating

### Axial screw termination



- ① 24 B hoods/housings with 3 modules Conductor cross-section 35 mm<sup>2</sup>
- ② 24 B hoods/housings with 3 modules Conductor cross-section 25 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
UL 2237 PVVA2.E318390  
CSA-C22.2 No. 182.3 PVVA8.E318390  
DNV GL

## Details

For more technical details (i.e. number of crimping operations or crimping position) see eCatalogue

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


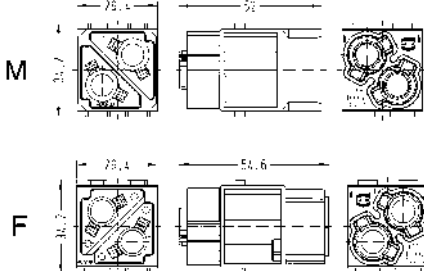

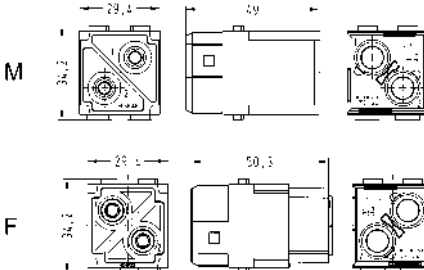

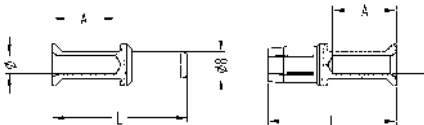
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts

# 2

100 A 1.000 V 8 kV 3

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)															
		Male	Female																
Han-Modular®, Han® 100 A module, Crimp termination  Please order crimp contacts separately.	10 ... 35	09 14 002 3051	09 14 002 3151																
Han-Modular®, Han® 100 A module, Axial screw termination, Contact surface: Silver plated 	10 ... 25 16 ... 35 22 ... 38	09 14 002 2653 09 14 002 2651 09 14 002 2650	09 14 002 2753 09 14 002 2751 09 14 002 2750	 Stripping length 12 ... 14 mm Tightening torque 6 Nm @ 10 ... 16 mm <sup>2</sup> , 7 Nm @ 25 mm <sup>2</sup> , 8 Nm @ 35 ... 38 mm <sup>2</sup>															
TC 100, Crimp contact, Contact surface: Silver plated 	10 16 25 35	09 11 000 6114 09 11 000 6116 09 11 000 6125 09 11 000 6135	09 11 000 6214 09 11 000 6216 09 11 000 6225 09 11 000 6235	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>∅</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>10 mm<sup>2</sup></td> <td>4.3</td> <td>19 mm</td> </tr> <tr> <td>16 mm<sup>2</sup></td> <td>5.5</td> <td>19 mm</td> </tr> <tr> <td>25 mm<sup>2</sup></td> <td>7</td> <td>19 mm</td> </tr> <tr> <td>35 mm<sup>2</sup></td> <td>8.2</td> <td>16 mm</td> </tr> </tbody> </table> for stranded wire according to IEC 60 228 Class 5	Conductor cross-section	∅	Stripping length	10 mm <sup>2</sup>	4.3	19 mm	16 mm <sup>2</sup>	5.5	19 mm	25 mm <sup>2</sup>	7	19 mm	35 mm <sup>2</sup>	8.2	16 mm
Conductor cross-section	∅	Stripping length																	
10 mm <sup>2</sup>	4.3	19 mm																	
16 mm <sup>2</sup>	5.5	19 mm																	
25 mm <sup>2</sup>	7	19 mm																	
35 mm <sup>2</sup>	8.2	16 mm																	

## Features

- Crimp or axial screw termination available
- Unlock of contacts with a screw driver from mating side
- Separate axial screw contacts can be terminated without any special tools directly to the wire

## Technical characteristics

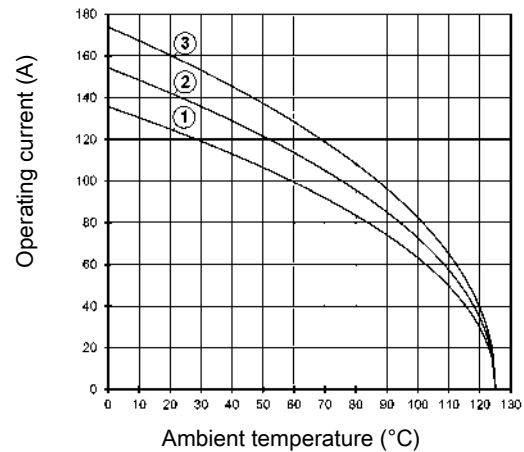
Number of contacts	1
Rated current	100 A
Rated voltage	830 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 0.3 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 16 mm<sup>2</sup>
- ② Conductor cross-section 25 mm<sup>2</sup>
- ③ Conductor cross-section 35 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
UL 2237 PVVA2.E318390  
CSA-C22.2 No. 182.3 PVVA8.E318390  
DNV GL

## Details

**Hex key (A/F 4)** see chapter Han 90

For more technical details (i.e. number of crimping operations or crimping position) see eCatalogue

### Remarks on the axial screw technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


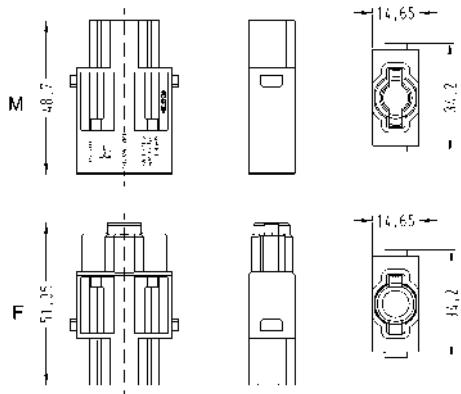

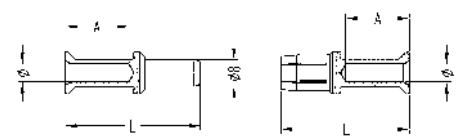

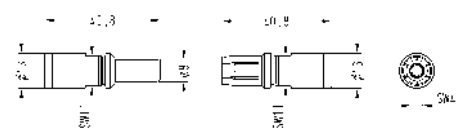
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts

# 1

100 A 830 V 8 kV 3

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)															
		Male	Female																
Han-Modular®, Han® 100 A module, Single module  <p>Please order contacts separately.</p>	10 ... 35	09 14 001 3031	09 14 001 3131																
TC 100, Crimp contact, Contact surface: Silver plated 	10 16 25 35	09 11 000 6114 09 11 000 6116 09 11 000 6125 09 11 000 6135	09 11 000 6214 09 11 000 6216 09 11 000 6225 09 11 000 6235	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>∅</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>10 mm<sup>2</sup></td> <td>4.3</td> <td>19 mm</td> </tr> <tr> <td>16 mm<sup>2</sup></td> <td>5.5</td> <td>19 mm</td> </tr> <tr> <td>25 mm<sup>2</sup></td> <td>7</td> <td>19 mm</td> </tr> <tr> <td>35 mm<sup>2</sup></td> <td>8.2</td> <td>16 mm</td> </tr> </tbody> </table> <p>for stranded wire according to IEC 60 228 Class 5</p>	Conductor cross-section	∅	Stripping length	10 mm <sup>2</sup>	4.3	19 mm	16 mm <sup>2</sup>	5.5	19 mm	25 mm <sup>2</sup>	7	19 mm	35 mm <sup>2</sup>	8.2	16 mm
Conductor cross-section	∅	Stripping length																	
10 mm <sup>2</sup>	4.3	19 mm																	
16 mm <sup>2</sup>	5.5	19 mm																	
25 mm <sup>2</sup>	7	19 mm																	
35 mm <sup>2</sup>	8.2	16 mm																	
TC 100, Axial screw contact, Contact surface: Silver plated 	10 ... 25 16 ... 35	09 11 000 6112 09 11 000 6113	09 11 000 6212 09 11 000 6213	 <p>Stripping length 13 mm</p> <table border="1"> <thead> <tr> <th colspan="5">Tightening torque</th> </tr> <tr> <th>mm<sup>2</sup></th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> </tr> </thead> <tbody> <tr> <td>Nm</td> <td>6</td> <td>6</td> <td>7</td> <td>8</td> </tr> </tbody> </table>	Tightening torque					mm <sup>2</sup>	10	16	25	35	Nm	6	6	7	8
Tightening torque																			
mm <sup>2</sup>	10	16	25	35															
Nm	6	6	7	8															

## Features

- for power circuits
- Male inserts with protection collar
- Polarisation of module

## Technical characteristics

Number of contacts	2
Rated current	70 A
Rated voltage	1000 V
Rated impulse voltage	8 kV
Pollution degree	3
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤0.5 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

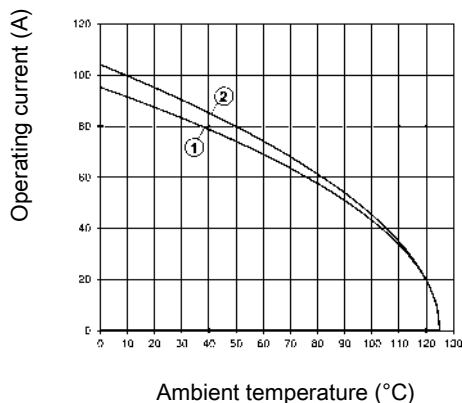
## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2

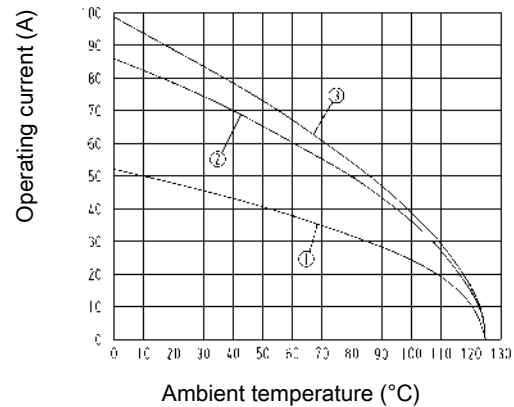
Crimp termination



- ① 24 B hoods/housings with 6 modules Conductor cross-section 16 mm<sup>2</sup>
- ② 24 B hoods/housings with 6 modules Conductor cross-section 25 mm<sup>2</sup>

## Derating

Axial screw termination



- ① 24 B hoods/housings with 6 modules Conductor cross-section 6 mm<sup>2</sup>
- ② 24 B hoods/housings with 6 modules Conductor cross-section 16 mm<sup>2</sup>
- ③ 24 B hoods/housings with 6 modules Conductor cross-section 22 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
UL 2237 PVVA2.E318390  
CSA-C22.2 No. 182.3 PVVA8.E318390  
DNV GL

## Details

### Remarks on the axial screw technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

**Hex key (A/F 2.5)** see chapter Han 90

For more technical details (i.e. number of crimping operations or crimping position) see eCatalogue

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


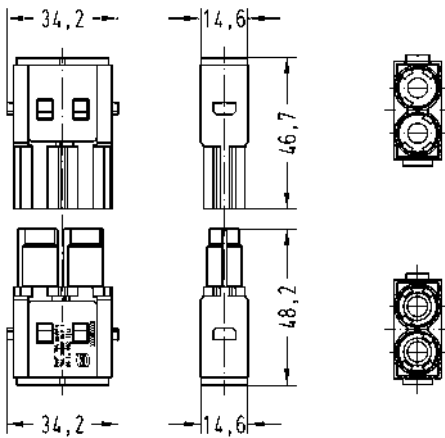

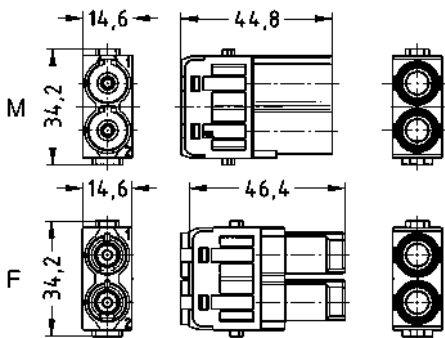
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts


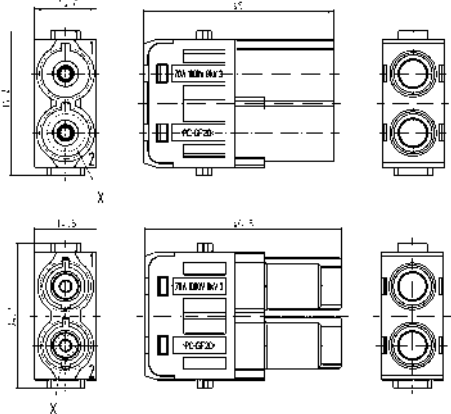

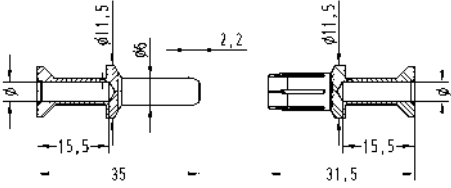
# 2

70 A 1.000 V 8 kV 3

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)		
		Male	Female			
<p>Han-Modular®, Han® 70 A module, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	10 ... 25	09 14 002 3041	09 14 002 3141			
<p>Han-Modular®, Han® 70 A module, Axial screw termination, Contact surface: Silver plated</p>  <p>Finger safe</p>	6 ... 16 14 ... 22	09 14 002 2641 09 14 002 2642				



Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)												
		Male	Female													
Han-Modular®, Han® 70 A module, Axial screw termination, Contact surface: Silver plated 	6 ... 16 14 ... 22	09 14 002 2646 09 14 002 2647	09 14 002 2741 09 14 002 2742	 <p>                         6 ... 16 mm<sup>2</sup>: Stripping length 11 ... 12 mm                          14 ... 22 mm<sup>2</sup>: Stripping length 12,5 ... 13.5 mm                          Tightening torque                          2 Nm @ 6 mm<sup>2</sup>, 3 Nm @ 10 mm<sup>2</sup>, 4 Nm @ 14 mm<sup>2</sup>, 4 Nm @ 16 mm<sup>2</sup>, 4 Nm @ 22 mm<sup>2</sup> </p>												
TC 70, Crimp contact, Contact surface: Silver plated 	10 16 25	09 11 000 6131 09 11 000 6132 09 11 000 6133	09 11 000 6231 09 11 000 6232 09 11 000 6233	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>10 mm<sup>2</sup></td> <td>4.3</td> <td>15.5 mm</td> </tr> <tr> <td>16 mm<sup>2</sup></td> <td>5.5</td> <td>15.5 mm</td> </tr> <tr> <td>25 mm<sup>2</sup></td> <td>7</td> <td>15.5 mm</td> </tr> </tbody> </table> <p>for stranded wire according to IEC 60 228 Class 5</p>	Conductor cross-section	ø	Stripping length	10 mm <sup>2</sup>	4.3	15.5 mm	16 mm <sup>2</sup>	5.5	15.5 mm	25 mm <sup>2</sup>	7	15.5 mm
Conductor cross-section	ø	Stripping length														
10 mm <sup>2</sup>	4.3	15.5 mm														
16 mm <sup>2</sup>	5.5	15.5 mm														
25 mm <sup>2</sup>	7	15.5 mm														

Modular

## Features

- Axial screw termination
- for power circuits
- Male inserts with protection collar
- Polarisation of module

## Technical characteristics

Number of contacts	1
Additional contacts	+ 4 additional signal contacts
Rated current	70 A
Rated voltage	1000 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated current (signal)	16 A
Rated voltage (signal)	400 V
Rated impulse voltage (signal)	6 kV
Pollution degree (signal)	3
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤0.5 mΩ, ≤1 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
DNV GL

## Details

**Hex key (A/F 2.5)** see chapter Han 90

### Remarks on the axial screw technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Contact resistance axial screw contact: ≤ 0.5 mΩ

Contact resistance Han E® crimp contact: ≤ 1 mΩ

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


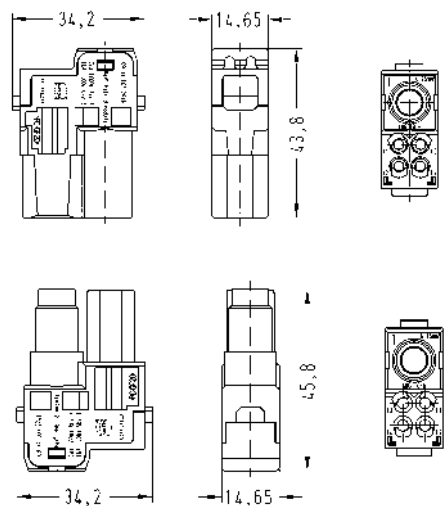

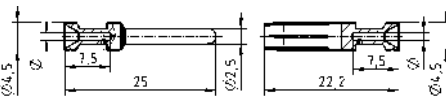
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts


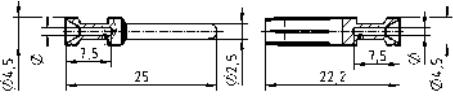
# 1

70 A 1.000 V 8 kV 3  
 16 A 400 V 6 kV 3  
 + 4 additional signal contacts

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																		
		Male	Female																			
Han-Modular®, Han® 70 A Hybrid module, Axial screw termination / crimp termination  <p>Please order signal contacts separately.</p>	6 ... 16 14 ... 22	09 14 005 2646 09 14 005 2647	09 14 005 2741 09 14 005 2742	 <p>6 ... 16 mm<sup>2</sup>: Stripping length 11 ... 12 mm                      14 ... 22 mm<sup>2</sup>: Stripping length 12,5 ... 13.5 mm                      Tightening torque                      2 Nm @ 6 mm<sup>2</sup>, 3 Nm @ 10 mm<sup>2</sup>, 4 Nm @ 14 mm<sup>2</sup>, 4 Nm @ 16 mm<sup>2</sup>, 4 Nm @ 22 mm<sup>2</sup></p>																		
Han E®, Crimp contact, Contact surface: Silver plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5 3 4	09 33 000 6127 09 33 000 6121 09 33 000 6114 09 33 000 6105 09 33 000 6104 09 33 000 6102 09 33 000 6106 09 33 000 6107	09 33 000 6227 09 33 000 6220 09 33 000 6214 09 33 000 6205 09 33 000 6204 09 33 000 6202 09 33 000 6206 09 33 000 6207	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm<sup>2</sup> AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar                      Stripping length 7.5 mm</p>	Conductor cross-section	Identification	0.14-0.37 mm <sup>2</sup> AWG 26-22	no groove	0.5 mm <sup>2</sup> AWG 20	no groove	0.75 mm <sup>2</sup> AWG 18	1 groove*	1 mm <sup>2</sup> AWG 18	1 groove	1.5 mm <sup>2</sup> AWG 16	2 groove	2.5 mm <sup>2</sup> AWG 14	3 groove	3 mm <sup>2</sup> AWG 12	wide groove	4 mm <sup>2</sup> AWG 12	no groove
Conductor cross-section	Identification																					
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0.5 mm <sup>2</sup> AWG 20	no groove																					
0.75 mm <sup>2</sup> AWG 18	1 groove*																					
1 mm <sup>2</sup> AWG 18	1 groove																					
1.5 mm <sup>2</sup> AWG 16	2 groove																					
2.5 mm <sup>2</sup> AWG 14	3 groove																					
3 mm <sup>2</sup> AWG 12	wide groove																					
4 mm <sup>2</sup> AWG 12	no groove																					

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																										
		Male	Female																											
Han E®, Crimp contact, Contact surface: Gold plated 	0.14 ... 0.37	09 33 000 6117	09 33 000 6217	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm<sup>2</sup></td> <td>AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm<sup>2</sup></td> <td>AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar</p> <p>Stripping length 7.5 mm</p>	Conductor cross-section	Identification	0.14-0.37 mm <sup>2</sup>	AWG 26-22	no groove	0.5 mm <sup>2</sup>	AWG 20	no groove	0.75 mm <sup>2</sup>	AWG 18	1 groove*	1 mm <sup>2</sup>	AWG 18	1 groove	1.5 mm <sup>2</sup>	AWG 16	2 groove	2.5 mm <sup>2</sup>	AWG 14	3 groove	3 mm <sup>2</sup>	AWG 12	wide groove	4 mm <sup>2</sup>	AWG 12	no groove
	Conductor cross-section	Identification																												
	0.14-0.37 mm <sup>2</sup>	AWG 26-22	no groove																											
	0.5 mm <sup>2</sup>	AWG 20	no groove																											
	0.75 mm <sup>2</sup>	AWG 18	1 groove*																											
	1 mm <sup>2</sup>	AWG 18	1 groove																											
	1.5 mm <sup>2</sup>	AWG 16	2 groove																											
2.5 mm <sup>2</sup>	AWG 14	3 groove																												
3 mm <sup>2</sup>	AWG 12	wide groove																												
4 mm <sup>2</sup>	AWG 12	no groove																												
0.5	09 33 000 6122	09 33 000 6222																												
0.75	09 33 000 6115	09 33 000 6215																												
1	09 33 000 6118	09 33 000 6218																												
1.5	09 33 000 6116	09 33 000 6216																												
2.5	09 33 000 6123	09 33 000 6223																												
4	09 33 000 6119	09 33 000 6221																												

## Features

- Crimp or axial screw termination available
- No special tools required for axial-screw termination

## Technical characteristics

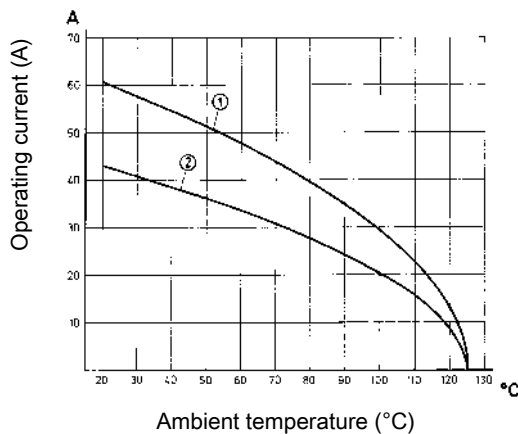
Number of contacts	2
Rated current	40 A
Rated voltage	1000 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 0.3 \text{ m}\Omega, \leq 1 \text{ m}\Omega$
Limiting temperature	$-40 \dots +125 \text{ }^\circ\text{C}$
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① 24 B hoods/housings with 6 modules Conductor cross-section 10 mm<sup>2</sup>
- ② 24 B hoods/housings with 6 modules Conductor cross-section 6 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 DNV GL  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 UL 2237 PVVA2.E318390  
 CSA-C22.2 No. 182.3 PVVA8.E318390

## Details

Contact resistance Han® C crimp contact:  $\leq 1 \text{ m}\Omega$

### Remarks on the axial screw technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Contact resistance axial screw contact:  $\leq 0.3 \text{ m}\Omega$

**Hex key (A/F 2)** see chapter Han 90

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


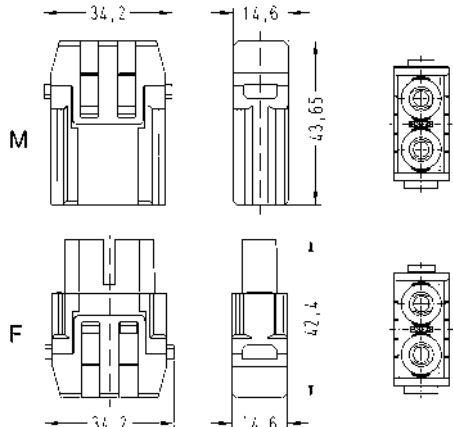

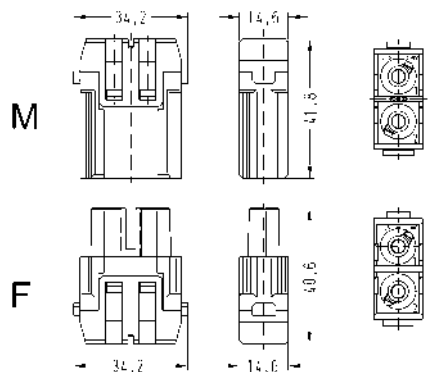
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts

# 2

40 A 1.000 V 8 kV 3

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																				
		Male	Female																					
<p>Han-Modular®, Han® 40 A module, Crimp termination, UL: 600 V</p>  <p>Please order crimp contacts separately.</p>	1.5 ... 10	09 14 002 3002	09 14 002 3102	 <p>Contact arrangement (view from termination side)</p>																				
<p>Han-Modular®, Han® 40 A module, Axial screw termination, Contact surface: Silver plated</p> 	2.5 ... 8 6 ... 10	09 14 002 2601 09 14 002 2602	09 14 002 2701 09 14 002 2702	 <p>Contact arrangement (view from termination side)</p> <p><b>Stripping length</b></p> <table border="1"> <tr> <td>mm<sup>2</sup></td> <td>2,5</td> <td>4</td> <td>6</td> <td>10</td> </tr> <tr> <td>mm</td> <td>5<sup>+1</sup></td> <td>5<sup>+1</sup></td> <td>8<sup>+1</sup></td> <td>11<sup>+1</sup></td> </tr> </table> <p><b>Tightening torque</b></p> <table border="1"> <tr> <td>mm<sup>2</sup></td> <td>2,5</td> <td>4</td> <td>6</td> <td>10</td> </tr> <tr> <td>Nm</td> <td>1,5</td> <td>1,5</td> <td>2</td> <td>2</td> </tr> </table>	mm <sup>2</sup>	2,5	4	6	10	mm	5 <sup>+1</sup>	5 <sup>+1</sup>	8 <sup>+1</sup>	11 <sup>+1</sup>	mm <sup>2</sup>	2,5	4	6	10	Nm	1,5	1,5	2	2
mm <sup>2</sup>	2,5	4	6	10																				
mm	5 <sup>+1</sup>	5 <sup>+1</sup>	8 <sup>+1</sup>	11 <sup>+1</sup>																				
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Nm	1,5	1,5	2	2																				

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																		
		Male	Female																			
Han® C, Crimp contact, Contact surface: Silver plated	1.5	09 32 000 6104	09 32 000 6204																			
	2.5	09 32 000 6105	09 32 000 6205																			
	4	09 32 000 6107	09 32 000 6207																			
	6	09 32 000 6108	09 32 000 6208																			
	10	09 32 000 6109	09 32 000 6209																			
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>9.5 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>9.5 mm</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>2.85 mm</td> <td>9.5 mm</td> </tr> <tr> <td>6 mm<sup>2</sup> AWG 10</td> <td>3.5 mm</td> <td>9.5 mm</td> </tr> <tr> <td>10 mm<sup>2</sup> AWG 8</td> <td>4.3 mm</td> <td>12 mm</td> </tr> </tbody> </table>					Conductor cross-section	ø	Stripping length	1.5 mm <sup>2</sup> AWG 16	1.75 mm	9.5 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	9.5 mm	4 mm <sup>2</sup> AWG 12	2.85 mm	9.5 mm	6 mm <sup>2</sup> AWG 10	3.5 mm	9.5 mm	10 mm <sup>2</sup> AWG 8	4.3 mm	12 mm
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10 mm <sup>2</sup> AWG 8	4.3 mm	12 mm																				

Modular

Modu-  
lar

## Features

- Standard module for power up to 40 A
- No special tools required for axial-screw termination

## Technical characteristics

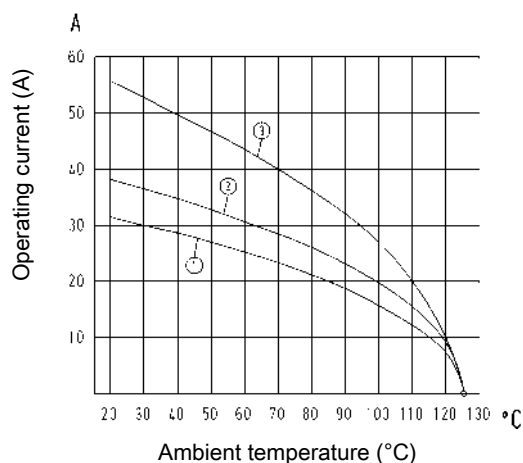
Number of contacts	3
Rated current	40 A
Rated voltage	690 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated current acc. to UL	40 A
Rated voltage acc. to UL	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 0.3 \text{ m}\Omega, \leq 1 \text{ m}\Omega$
Limiting temperature	$-40 \dots +125 \text{ }^\circ\text{C}$
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① 24 B hoods/housings with 6 modules Conductor cross-section 4 mm<sup>2</sup>
- ② 24 B hoods/housings with 6 modules Conductor cross-section 6 mm<sup>2</sup>
- ③ 24 B hoods/housings with 6 modules Conductor cross-section 10 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
DNV GL  
UL 2237 PVVA2.E318390  
CSA-C22.2 No. 182.3 PVVA8.E318390

## Details

Contact resistance Han® C crimp contact:  $\leq 1 \text{ m}\Omega$

### Remarks on the axial screw technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Contact resistance axial screw contact:  $\leq 0.3 \text{ m}\Omega$

**Hex key (A/F 2)** see chapter Han 90

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.


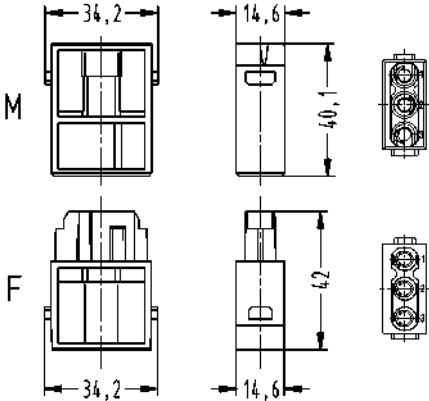

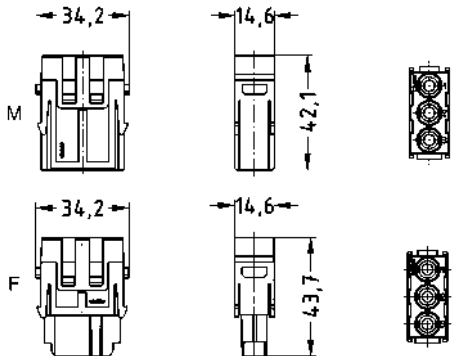


Number of contacts

# 3

40 A 690 V 8 kV 3

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																				
		Male	Female																					
Han-Modular®, Han® C module, Crimp termination  <p>Please order crimp contacts separately.</p>	1.5 ... 6	09 14 003 3001	09 14 003 3101	 <p>Contact arrangement (view from termination side)</p>																				
Han-Modular®, Han® C module, Axial screw termination, Contact surface: Silver plated 	2.5 ... 8 6 ... 10	09 14 003 2601 09 14 003 2602	09 14 003 2701 09 14 003 2702	 <p>Contact arrangement (view from termination side)</p> <p><b>Stripping length</b></p> <table border="1"> <tr> <td>mm<sup>2</sup></td> <td>2,5</td> <td>4</td> <td>6</td> <td>10</td> </tr> <tr> <td>mm</td> <td>5<sup>+1</sup></td> <td>5<sup>+1</sup></td> <td>8<sup>+1</sup></td> <td>11<sup>+1</sup></td> </tr> </table> <p><b>Tightening torque</b></p> <table border="1"> <tr> <td>mm<sup>2</sup></td> <td>2,5</td> <td>4</td> <td>6</td> <td>10</td> </tr> <tr> <td>Nm</td> <td>1,5</td> <td>1,5</td> <td>2</td> <td>2</td> </tr> </table>	mm <sup>2</sup>	2,5	4	6	10	mm	5 <sup>+1</sup>	5 <sup>+1</sup>	8 <sup>+1</sup>	11 <sup>+1</sup>	mm <sup>2</sup>	2,5	4	6	10	Nm	1,5	1,5	2	2
mm <sup>2</sup>	2,5	4	6	10																				
mm	5 <sup>+1</sup>	5 <sup>+1</sup>	8 <sup>+1</sup>	11 <sup>+1</sup>																				
mm <sup>2</sup>	2,5	4	6	10																				
Nm	1,5	1,5	2	2																				

Modu-  
lar

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																		
		Male	Female																			
Han® C, Crimp contact, Contact surface: Silver plated	1.5	09 32 000 6104	09 32 000 6204	<table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>9.5 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>9.5 mm</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>2.85 mm</td> <td>9.5 mm</td> </tr> <tr> <td>6 mm<sup>2</sup> AWG 10</td> <td>3.5 mm</td> <td>9.5 mm</td> </tr> <tr> <td>10 mm<sup>2</sup> AWG 8</td> <td>4.3 mm</td> <td>12 mm</td> </tr> </tbody> </table>	Conductor cross-section	ø	Stripping length	1.5 mm <sup>2</sup> AWG 16	1.75 mm	9.5 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	9.5 mm	4 mm <sup>2</sup> AWG 12	2.85 mm	9.5 mm	6 mm <sup>2</sup> AWG 10	3.5 mm	9.5 mm	10 mm <sup>2</sup> AWG 8	4.3 mm	12 mm
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10 mm <sup>2</sup> AWG 8	4.3 mm	12 mm																				
2.5	09 32 000 6105	09 32 000 6205																				
4	09 32 000 6107	09 32 000 6207																				
6	09 32 000 6108	09 32 000 6208																				



## Features

- Suitable for Han® C crimp contacts
- Designed for a high working voltage up to 830 V
- Finger safe male and female contacts
- High density of contacts

## Technical characteristics

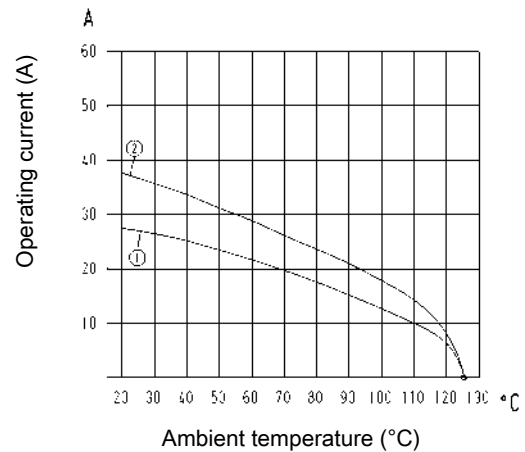
Number of contacts	4
Rated current	40 A
Rated voltage	830 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 1 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① 24 B hoods/housings with 6 modules Conductor cross-section 4 mm<sup>2</sup>
- ② 24 B hoods/housings with 6 modules Conductor cross-section 6 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
DNV GL

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


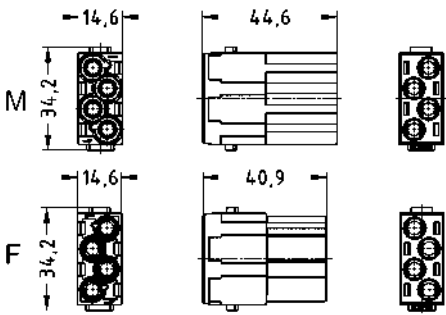

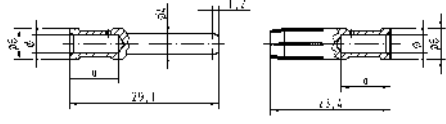
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts

# 4

40 A 830 V 8 kV 3

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																		
		Male	Female																			
Han-Modular®, Han® CC Protected module, Crimp termination  <p>Please order crimp contacts separately.</p>	1.5 ... 6	09 14 004 3041	09 14 004 3141	 <p>Contact arrangement (view from termination side)</p>																		
Han® C, Crimp contact, Contact surface: Silver plated 	1.5 2.5 4 6	09 32 000 6104 09 32 000 6105 09 32 000 6107 09 32 000 6108	09 32 000 6204 09 32 000 6205 09 32 000 6207 09 32 000 6208	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>9.5 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>9.5 mm</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>2.85 mm</td> <td>9.5 mm</td> </tr> <tr> <td>6 mm<sup>2</sup> AWG 10</td> <td>3.5 mm</td> <td>9.5 mm</td> </tr> <tr> <td>10 mm<sup>2</sup> AWG 8</td> <td>4.3 mm</td> <td>12 mm</td> </tr> </tbody> </table>	Conductor cross-section	ø	Stripping length	1.5 mm <sup>2</sup> AWG 16	1.75 mm	9.5 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	9.5 mm	4 mm <sup>2</sup> AWG 12	2.85 mm	9.5 mm	6 mm <sup>2</sup> AWG 10	3.5 mm	9.5 mm	10 mm <sup>2</sup> AWG 8	4.3 mm	12 mm
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6 mm <sup>2</sup> AWG 10	3.5 mm	9.5 mm																				
10 mm <sup>2</sup> AWG 8	4.3 mm	12 mm																				

## Features

- 3 contacts (40 A) for power circuits and 4 contacts (10 A) for signal circuits
- Ideal as motor drive connector
- Finger safe male and female contacts

## Technical characteristics

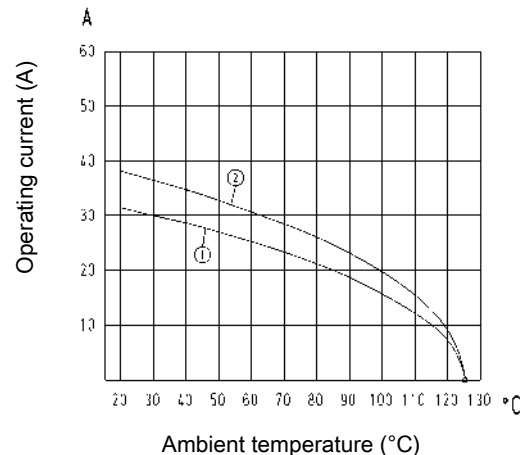
Number of contacts	3
Additional contacts	+ 4 additional signal contacts
Rated current	40 A
Rated voltage	830 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated current (signal)	10 A
Rated voltage (signal)	830 V
Rated impulse voltage (signal)	8 kV
Pollution degree (signal)	3
Rated voltage acc. to UL	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 1 \text{ m}\Omega, \leq 3 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Wire outer diameter	$\leq 5 \text{ mm}$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① 24 B hoods/housings with 6 modules Conductor cross-section 4 mm<sup>2</sup>
- ② 24 B hoods/housings with 6 modules Conductor cross-section 6 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
DNV GL

## Details

Contact resistance Han D® crimp contact:  $\leq 3 \text{ m}\Omega$

Contact resistance Han® C crimp contact:  $\leq 1 \text{ m}\Omega$

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


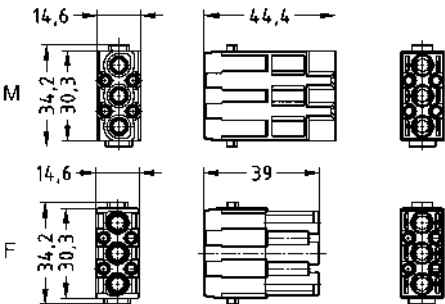

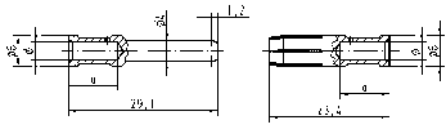

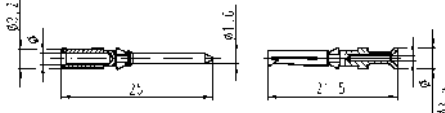
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts

# 3

40 A 830 V 8 kV 3  
 10 A 830 V 8 kV 3  
 + 4 additional signal contacts

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																					
		Male	Female																						
Han-Modular®, Han® CD module, Crimp termination  <p>Please order crimp contacts separately.</p>	0.14 ... 6	09 14 007 3001	09 14 007 3101	 <p>Contact arrangement (view from termination side)</p>																					
Han® C, Crimp contact, Contact surface: Silver plated 	1.5 2.5 4 6	09 32 000 6104 09 32 000 6105 09 32 000 6107 09 32 000 6108	09 32 000 6204 09 32 000 6205 09 32 000 6207 09 32 000 6208	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>9.5 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>9.5 mm</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>2.85 mm</td> <td>9.5 mm</td> </tr> <tr> <td>6 mm<sup>2</sup> AWG 10</td> <td>3.5 mm</td> <td>9.5 mm</td> </tr> <tr> <td>10 mm<sup>2</sup> AWG 8</td> <td>4.3 mm</td> <td>12 mm</td> </tr> </tbody> </table>	Conductor cross-section	Ø	Stripping length	1.5 mm <sup>2</sup> AWG 16	1.75 mm	9.5 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	9.5 mm	4 mm <sup>2</sup> AWG 12	2.85 mm	9.5 mm	6 mm <sup>2</sup> AWG 10	3.5 mm	9.5 mm	10 mm <sup>2</sup> AWG 8	4.3 mm	12 mm			
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10 mm <sup>2</sup> AWG 8	4.3 mm	12 mm																							
Han D®, Crimp contact, Contact surface: Silver plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 000 6104 09 15 000 6103 09 15 000 6105 09 15 000 6102 09 15 000 6101 09 15 000 6106	09 15 000 6204 09 15 000 6203 09 15 000 6205 09 15 000 6202 09 15 000 6201 09 15 000 6206	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	Ø	Stripping length	0.14-0.37 mm <sup>2</sup> AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup> AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup> AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup> AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup> AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	6 mm
Conductor cross-section	Ø	Stripping length																							
0.14-0.37 mm <sup>2</sup> AWG 26-22	0.9 mm	8 mm																							
0.5 mm <sup>2</sup> AWG 20	1.1 mm	8 mm																							
0.75 mm <sup>2</sup> AWG 18	1.3 mm	8 mm																							
1 mm <sup>2</sup> AWG 18	1.45 mm	8 mm																							
1.5 mm <sup>2</sup> AWG 16	1.75 mm	8 mm																							
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Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																												
		Male	Female																													
Han D®, Crimp contact, Contact surface: Gold plated	0.14 ... 0.37	09 15 000 6124	09 15 000 6224																													
	0.5	09 15 000 6123	09 15 000 6223																													
	0.75	09 15 000 6125	09 15 000 6225																													
	1	09 15 000 6122	09 15 000 6222																													
	1.5	09 15 000 6121	09 15 000 6221																													
	2.5	09 15 000 6126	09 15 000 6226																													
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## Features


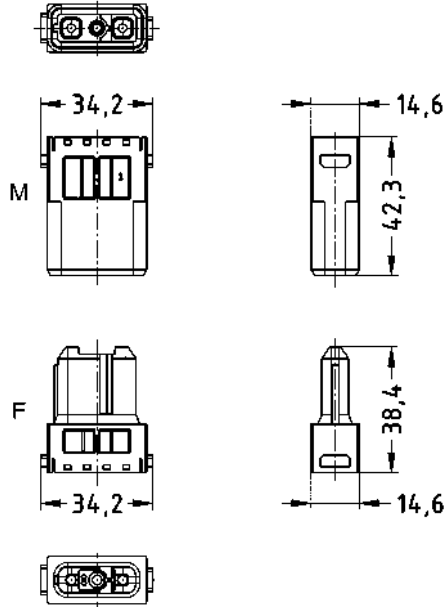
- Affordable module without contacts
- Centring function with a very large inlet cone of +/- 4 mm
- Significantly better handling compared to conventional guide pins/sockets
- Ideal add-on when dealing with many mating cycles or inaccessible connectors

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Lock-in range	±4 mm
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 9005 (jet black)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Specifications and approvals

EN 60664-1  
IEC 61984

Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
Han-Modular®, Han® Guiding module, Dummy module 	09 14 003 3050	09 14 003 3150	



Number of contacts

# 3

16 A 500 V 6 kV 3

Modu-  
lar

## Features

- 2 contacts with relay function (last mate - first break)
- Enables other power contacts to be switched off via a relay and thus offers greater safety in the event of a fault (when used as intended, the connector must not be plugged in or disconnected under voltage / load)

## Technical characteristics

Number of contacts	3
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 1 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Lock-in range	$\pm 4 \text{ mm}$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Specifications and approvals

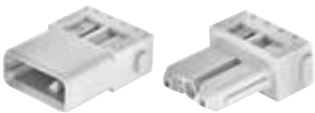
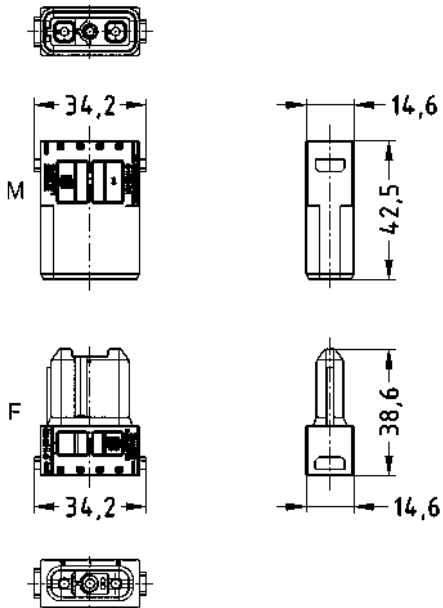
EN 60664-1  
IEC 61984

## Details


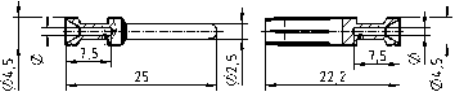

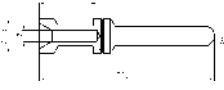
**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han-Modular®, Han® Guiding module, Relay module, Crimp termination  <p>Please order crimp contacts separately.</p>	0.14 ... 4	09 14 003 3051	09 14 003 3151	

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																											
		Male	Female																												
Han E®, Crimp contact, Contact surface: Silver plated 	0.14 ... 0.37		09 33 000 6227	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th colspan="2">Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm<sup>2</sup></td> <td>AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm<sup>2</sup></td> <td>AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar</p>	Conductor cross-section	Identification		0.14-0.37 mm <sup>2</sup>	AWG 26-22	no groove	0.5 mm <sup>2</sup>	AWG 20	no groove	0.75 mm <sup>2</sup>	AWG 18	1 groove*	1 mm <sup>2</sup>	AWG 18	1 groove	1.5 mm <sup>2</sup>	AWG 16	2 groove	2.5 mm <sup>2</sup>	AWG 14	3 groove	3 mm <sup>2</sup>	AWG 12	wide groove	4 mm <sup>2</sup>	AWG 12	no groove
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0.75		09 33 000 6214																													
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1.5		09 33 000 6204																													
2.5		09 33 000 6202																													
3		09 33 000 6206																													
4		09 33 000 6207																													
Han E®, Crimp contact, Relay contact, Contact surface: Silver plated 	0.75 ... 1	09 33 000 6109		Stripping length 7.5 mm  <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.75-1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>7.5 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>7.5 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>7.5 mm</td> </tr> </tbody> </table>	Conductor cross-section	ø	Stripping length	0.75-1 mm <sup>2</sup>	AWG 18	1.45 mm	7.5 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	7.5 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	7.5 mm												
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1.5	09 33 000 6110																														
2.5	09 33 000 6111																														

Number of contacts

**2+**

16 A 500 V 6 kV 3

Modular

## Features

- PE connection with a Han E® crimp contact
- Only for use in the Han-Eco® Modular plastic housings
- Centring function with a very large inlet cone of +/- 4 mm

## Technical characteristics

Number of contacts	2
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤1 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Lock-in range	±4 mm
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Specifications and approvals


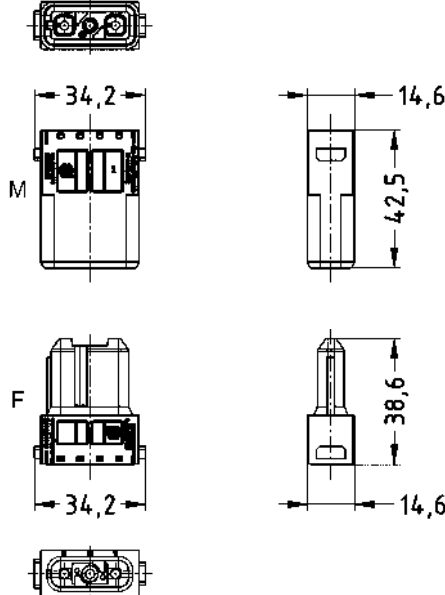
EN 60664-1  
IEC 61984

## Details


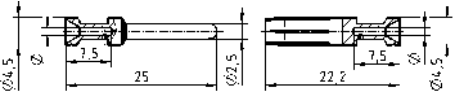

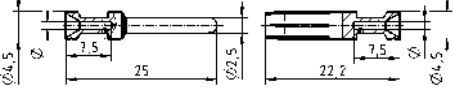
**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han-Modular®, Han® Guiding module, PE module, Crimp termination   <p>Please order crimp contacts separately. Not for Han-Modular® hinged frames!</p>	0.14 ... 4	09 14 003 3052	09 14 003 3152	

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																										
		Male	Female																											
Han E®, Crimp contact, Contact surface: Silver plated 	0.14 ... 0.37	09 33 000 6127	09 33 000 6227	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm<sup>2</sup></td> <td>AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm<sup>2</sup></td> <td>AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar</p>	Conductor cross-section	Identification	0.14-0.37 mm <sup>2</sup>	AWG 26-22	no groove	0.5 mm <sup>2</sup>	AWG 20	no groove	0.75 mm <sup>2</sup>	AWG 18	1 groove*	1 mm <sup>2</sup>	AWG 18	1 groove	1.5 mm <sup>2</sup>	AWG 16	2 groove	2.5 mm <sup>2</sup>	AWG 14	3 groove	3 mm <sup>2</sup>	AWG 12	wide groove	4 mm <sup>2</sup>	AWG 12	no groove
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0.5	09 33 000 6121	09 33 000 6220																												
0.75	09 33 000 6114	09 33 000 6214																												
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1.5	09 33 000 6104	09 33 000 6204																												
2.5	09 33 000 6102	09 33 000 6202																												
3	09 33 000 6106	09 33 000 6206																												
4	09 33 000 6107	09 33 000 6207																												
Han E®, Crimp contact, Contact surface: Gold plated 	0.14 ... 0.37	09 33 000 6117	09 33 000 6217	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm<sup>2</sup></td> <td>AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm<sup>2</sup></td> <td>AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar</p>	Conductor cross-section	Identification	0.14-0.37 mm <sup>2</sup>	AWG 26-22	no groove	0.5 mm <sup>2</sup>	AWG 20	no groove	0.75 mm <sup>2</sup>	AWG 18	1 groove*	1 mm <sup>2</sup>	AWG 18	1 groove	1.5 mm <sup>2</sup>	AWG 16	2 groove	2.5 mm <sup>2</sup>	AWG 14	3 groove	3 mm <sup>2</sup>	AWG 12	wide groove	4 mm <sup>2</sup>	AWG 12	no groove
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0.75	09 33 000 6115	09 33 000 6215																												
1	09 33 000 6118	09 33 000 6218																												
1.5	09 33 000 6116	09 33 000 6216																												
2.5	09 33 000 6123	09 33 000 6223																												
4	09 33 000 6119	09 33 000 6221																												

## Features

- Standard module for power up to 16 A
- Han-Quick Lock® or crimp termination available

## Technical characteristics

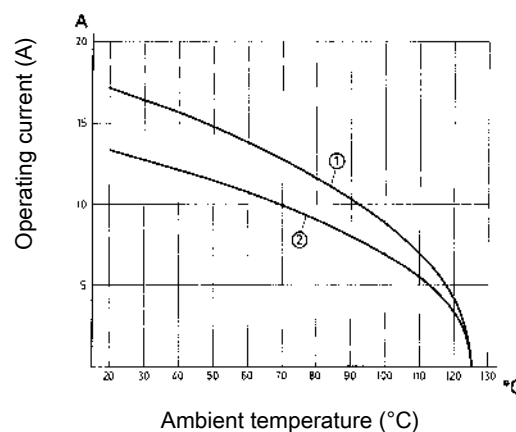
Number of contacts	6
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 1 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Mating cycles with other HMC components	$\geq 10000$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



① 24 B hoods/housings with 6 modules Conductor cross-section 2.5 mm<sup>2</sup>

② 24 B hoods/housings with 6 modules Conductor cross-section 1.5 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
UL 2237 PVVA2.E318390  
CSA-C22.2 No. 182.3 PVVA8.E318390  
DNV GL  
CSA-C22.2 No. 182.3 ECBT8.E235076

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


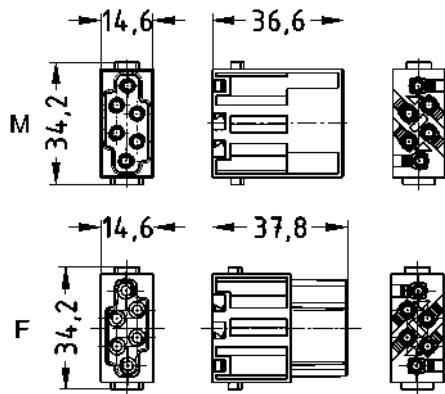

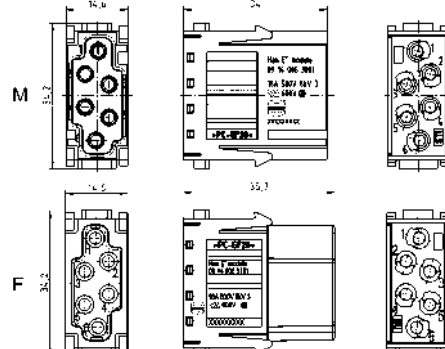

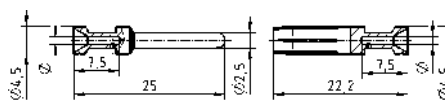
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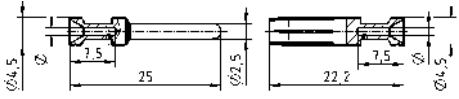
Number of contacts

# 6

16 A 500 V 6 kV 3

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																		
		Male	Female																			
Han-Modular®, Han E® module, Han-Quick Lock® termination, Contact surface: Silver plated 	0.5 ... 2.5	09 14 006 2633	09 14 006 2733																			
Han-Modular®, Han E® module, Crimp termination Please order crimp contacts separately. 	0.14 ... 4	09 14 006 3001	09 14 006 3101	 <p>Contact arrangement (view from termination side)</p>																		
Han E®, Crimp contact, Contact surface: Silver plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5 3 4	09 33 000 6127 09 33 000 6121 09 33 000 6114 09 33 000 6105 09 33 000 6104 09 33 000 6102 09 33 000 6106 09 33 000 6107	09 33 000 6227 09 33 000 6220 09 33 000 6214 09 33 000 6205 09 33 000 6204 09 33 000 6202 09 33 000 6206 09 33 000 6207	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm<sup>2</sup> AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar</p> <p>Stripping length 7.5 mm</p>	Conductor cross-section	Identification	0.14-0.37 mm <sup>2</sup> AWG 26-22	no groove	0.5 mm <sup>2</sup> AWG 20	no groove	0.75 mm <sup>2</sup> AWG 18	1 groove*	1 mm <sup>2</sup> AWG 18	1 groove	1.5 mm <sup>2</sup> AWG 16	2 groove	2.5 mm <sup>2</sup> AWG 14	3 groove	3 mm <sup>2</sup> AWG 12	wide groove	4 mm <sup>2</sup> AWG 12	no groove
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Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																		
		Male	Female																			
Han E®, Crimp contact, Contact surface: Gold plated 	0.14 ... 0.37	09 33 000 6117	09 33 000 6217	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm<sup>2</sup> AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar</p> <p>Stripping length 7.5 mm</p>	Conductor cross-section	Identification	0.14-0.37 mm <sup>2</sup> AWG 26-22	no groove	0.5 mm <sup>2</sup> AWG 20	no groove	0.75 mm <sup>2</sup> AWG 18	1 groove*	1 mm <sup>2</sup> AWG 18	1 groove	1.5 mm <sup>2</sup> AWG 16	2 groove	2.5 mm <sup>2</sup> AWG 14	3 groove	3 mm <sup>2</sup> AWG 12	wide groove	4 mm <sup>2</sup> AWG 12	no groove
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3 mm <sup>2</sup> AWG 12	wide groove																					
4 mm <sup>2</sup> AWG 12	no groove																					
0.5	09 33 000 6122	09 33 000 6222																				
0.75	09 33 000 6115	09 33 000 6215																				
1	09 33 000 6118	09 33 000 6218																				
1.5	09 33 000 6116	09 33 000 6216																				
2.5	09 33 000 6123	09 33 000 6223																				
4	09 33 000 6119	09 33 000 6221																				

Number of contacts

# 5

16 A 230/400 V 4 kV 3

Modu-  
lar

## Features

- Screw connection, suitable for all users around the world
- No special tools required
- for flexible and solid conductors from 0.5 to 2.5 mm<sup>2</sup>
- Additional protection against voltage and accidental contact by a sliding insulation cover which closes automatically during mating.

## Technical characteristics

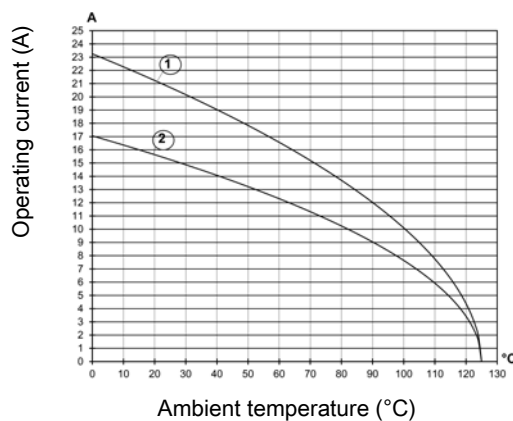
Number of contacts	5
Rated current	16 A
Rated voltage conductor-earth	230 V
Rated voltage conductor-conductor	400 V
Rated impulse voltage	4 kV
Pollution degree	3
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤1 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2

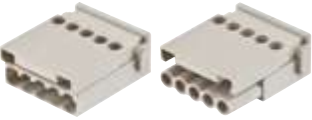
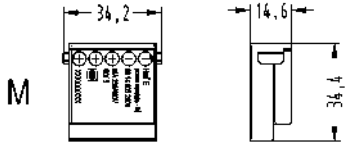
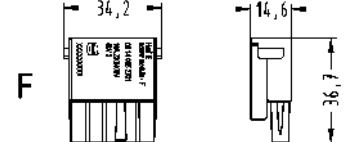


- ① Conductor cross-section 2.5 mm<sup>2</sup>
- ② Conductor cross-section 1.5 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
UL 2237 PVVA2.E318390  
CSA-C22.2 No. 182.3 PVVA8.E318390  
DNV GL



Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han-Modular®, Han E® module, Screw termination, Contact surface: Silver plated 	0.5 ... 2.5	09 14 005 2601	09 14 005 2701	<div style="display: flex; flex-direction: column; align-items: flex-start;"> <div style="margin-bottom: 10px;"> <p><b>M</b></p>  </div> <div> <p><b>F</b></p>  </div> </div> <p>Stripping length 7.5 mm Tightening torque 0.5 Nm</p>

Modular

## Features

- Suitable for Han E<sup>®</sup> crimp contacts
- Designed for a high working voltage up to 830 V
- Finger safe male and female contacts

## Technical characteristics

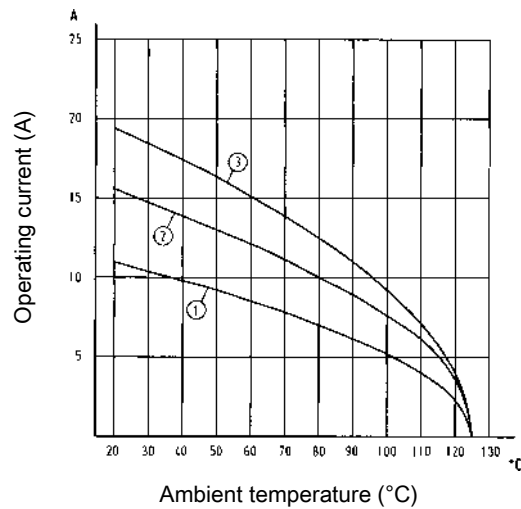
Number of contacts	6
Rated current	16 A
Rated voltage	830 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤1 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Mating cycles with other HMC components	≥10000
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① 24 B hoods/housings with 6 modules Conductor cross-section 1.5 mm<sup>2</sup>
- ② 24 B hoods/housings with 6 modules Conductor cross-section 2.5 mm<sup>2</sup>
- ③ 24 B hoods/housings with 6 modules Conductor cross-section 4 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 UL 2237 PVVA2.E318390  
 CSA-C22.2 No. 182.3 PVVA8.E318390  
 DNV GL

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.


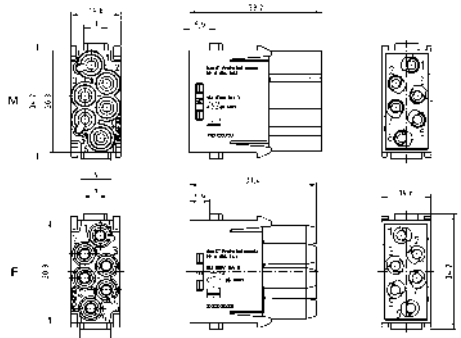

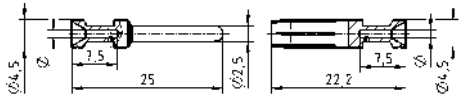

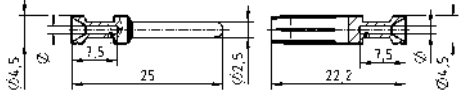
Modular

Number of contacts

# 6

16 A 830 V 8 kV 3

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																		
		Male	Female																			
Han-Modular®, Han E® Protected module, Crimp termination  <p>Please order crimp contacts separately.</p>	0.14 ... 4	09 14 006 3041	09 14 006 3141	 <p>Contact arrangement (view from termination side)</p>																		
Han E®, Crimp contact, Contact surface: Silver plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5 3 4	09 33 000 6127 09 33 000 6121 09 33 000 6114 09 33 000 6105 09 33 000 6104 09 33 000 6102 09 33 000 6106 09 33 000 6107	09 33 000 6227 09 33 000 6220 09 33 000 6214 09 33 000 6205 09 33 000 6204 09 33 000 6202 09 33 000 6206 09 33 000 6207	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm<sup>2</sup> AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar</p> <p>Stripping length 7.5 mm</p>	Conductor cross-section	Identification	0.14-0.37 mm <sup>2</sup> AWG 26-22	no groove	0.5 mm <sup>2</sup> AWG 20	no groove	0.75 mm <sup>2</sup> AWG 18	1 groove*	1 mm <sup>2</sup> AWG 18	1 groove	1.5 mm <sup>2</sup> AWG 16	2 groove	2.5 mm <sup>2</sup> AWG 14	3 groove	3 mm <sup>2</sup> AWG 12	wide groove	4 mm <sup>2</sup> AWG 12	no groove
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Han E®, Crimp contact, Contact surface: Gold plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5 4	09 33 000 6117 09 33 000 6122 09 33 000 6115 09 33 000 6118 09 33 000 6116 09 33 000 6123 09 33 000 6119	09 33 000 6217 09 33 000 6222 09 33 000 6215 09 33 000 6218 09 33 000 6216 09 33 000 6223 09 33 000 6221	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm<sup>2</sup> AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar</p> <p>Stripping length 7.5 mm</p>	Conductor cross-section	Identification	0.14-0.37 mm <sup>2</sup> AWG 26-22	no groove	0.5 mm <sup>2</sup> AWG 20	no groove	0.75 mm <sup>2</sup> AWG 18	1 groove*	1 mm <sup>2</sup> AWG 18	1 groove	1.5 mm <sup>2</sup> AWG 16	2 groove	2.5 mm <sup>2</sup> AWG 14	3 groove	3 mm <sup>2</sup> AWG 12	wide groove	4 mm <sup>2</sup> AWG 12	no groove
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3 mm <sup>2</sup> AWG 12	wide groove																					
4 mm <sup>2</sup> AWG 12	no groove																					

Modular

## Features

- Han-Quick Lock® or crimp termination available
- High packing density

## Technical characteristics

Number of contacts	8
Rated current	16 A
Rated voltage	400 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤1 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Mating cycles with other HMC components	≥10000
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption, compliant

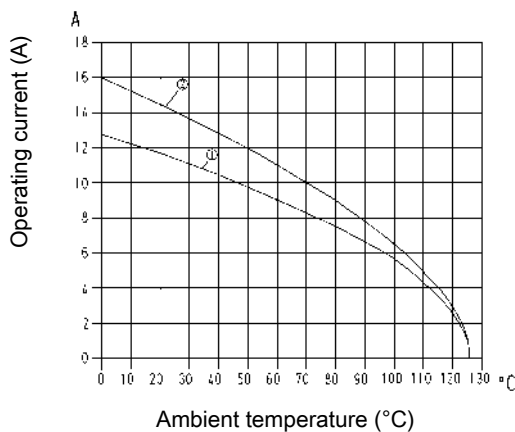
## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2

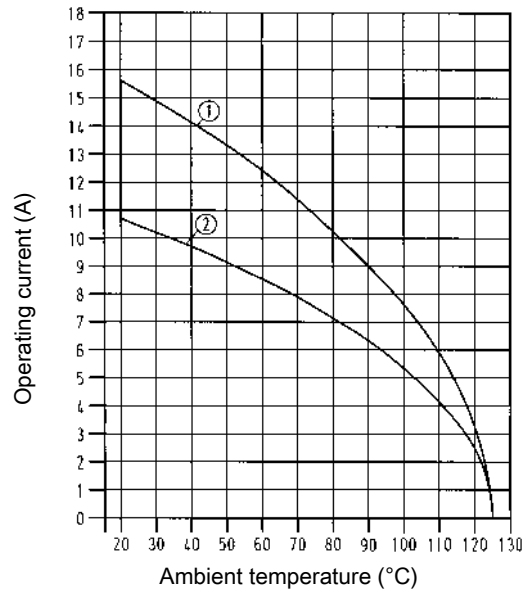
Han-Quick Lock® termination



- ① 24 B hoods/housings with 6 modules Conductor cross-section 1.5 mm<sup>2</sup>
- ② 24 B hoods/housings with 6 modules Conductor cross-section 2.5 mm<sup>2</sup>

## Derating

### Crimp termination



- ① 24 B hoods/housings with 6 modules Conductor cross-section 2.5 mm<sup>2</sup>
- ② 24 B hoods/housings with 6 modules Conductor cross-section 1.5 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
UL 2237 PVVA2.E318390  
CSA-C22.2 No. 182.3 PVVA8.E318390  
DNV GL

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


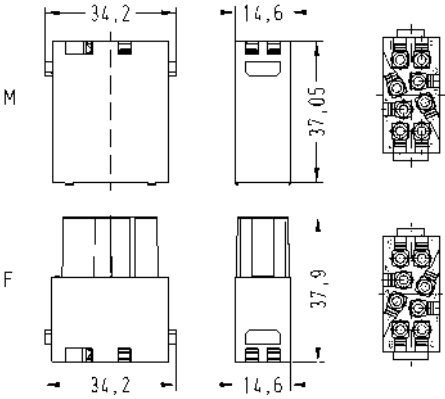

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts

# 8

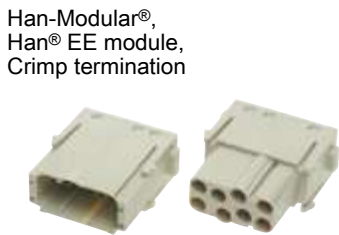
16 A 400 V 6 kV 3

Modular

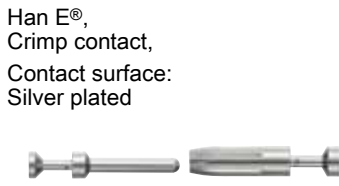
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han-Modular®, Han® EE module, Han-Quick Lock® termination, Contact surface: Silver plated</p>  <p>Blue slide</p>	0.5 ... 2.5	09 14 008 2633	09 14 008 2733	 <p>Contact arrangement (view from termination side) Stripping length 10 mm</p>
<p>Han-Modular®, Han® EE module, Han-Quick Lock® termination, Contact surface: Silver plated</p>  <p>Black slide</p>	0.25 ... 1.5	09 14 008 2634	09 14 008 2734	

Modular

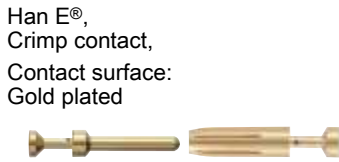
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	
		Male	Female



Please order crimp contacts separately.

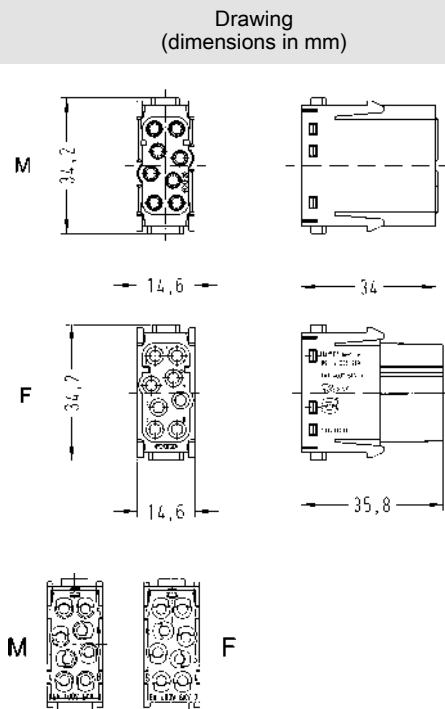


Han E®, Crimp contact, Contact surface: Silver plated

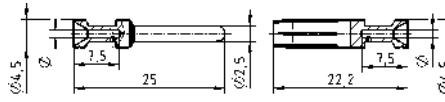


Han E®, Crimp contact, Contact surface: Gold plated

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	
		Male	Female
Han-Modular®, Han® EE module, Crimp termination	0.14 ... 4	09 14 008 3001	09 14 008 3101
Han E®, Crimp contact, Contact surface: Silver plated	0.14 ... 0.37 0.5 0.75 1 1.5 2.5 3 4	09 33 000 6127 09 33 000 6121 09 33 000 6114 09 33 000 6105 09 33 000 6104 09 33 000 6102 09 33 000 6106 09 33 000 6107	09 33 000 6227 09 33 000 6220 09 33 000 6214 09 33 000 6205 09 33 000 6204 09 33 000 6202 09 33 000 6206 09 33 000 6207
Han E®, Crimp contact, Contact surface: Gold plated	0.14 ... 0.37 0.5 0.75 1 1.5 2.5 4	09 33 000 6117 09 33 000 6122 09 33 000 6115 09 33 000 6118 09 33 000 6116 09 33 000 6123 09 33 000 6119	09 33 000 6217 09 33 000 6222 09 33 000 6215 09 33 000 6218 09 33 000 6216 09 33 000 6223 09 33 000 6221



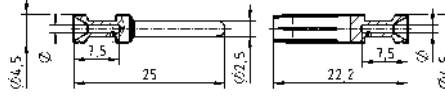
Contact arrangement (view from termination side)  
Stripping length 7.5 mm



Conductor cross-section	Identification
0.14-0.37 mm <sup>2</sup> AWG 26-22	no groove
0.5 mm <sup>2</sup> AWG 20	no groove
0.75 mm <sup>2</sup> AWG 18	1 groove*
1 mm <sup>2</sup> AWG 18	1 groove
1.5 mm <sup>2</sup> AWG 16	2 groove
2.5 mm <sup>2</sup> AWG 14	3 groove
3 mm <sup>2</sup> AWG 12	wide groove
4 mm <sup>2</sup> AWG 12	no groove

\* on the back crimp collar

Stripping length 7.5 mm



Conductor cross-section	Identification
0.14-0.37 mm <sup>2</sup> AWG 26-22	no groove
0.5 mm <sup>2</sup> AWG 20	no groove
0.75 mm <sup>2</sup> AWG 18	1 groove*
1 mm <sup>2</sup> AWG 18	1 groove
1.5 mm <sup>2</sup> AWG 16	2 groove
2.5 mm <sup>2</sup> AWG 14	3 groove
3 mm <sup>2</sup> AWG 12	wide groove
4 mm <sup>2</sup> AWG 12	no groove

\* on the back crimp collar

Stripping length 7.5 mm

## Features

- Suitable for Han E® crimp contacts
- Higher density of crimping contacts
- Standard module for power up to 16 A
- Also suitable as a reliable signal connector

## Technical characteristics

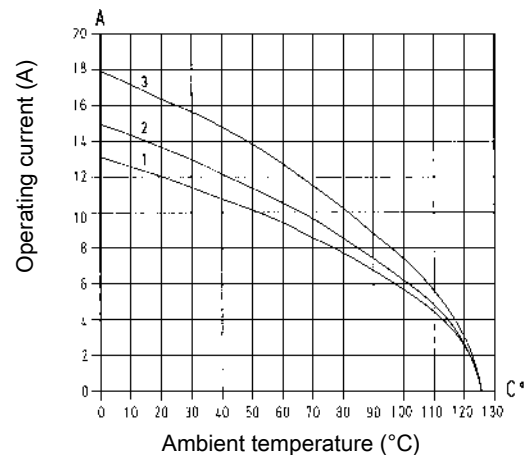
Number of contacts	20
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 1 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Mating cycles with other HMC components	$\geq 10000$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① 24 B hoods/housings with 3 modules Conductor cross-section 1.5 mm<sup>2</sup>
- ② 24 B hoods/housings with 3 modules Conductor cross-section 2.5 mm<sup>2</sup>
- ③ 24 B hoods/housings with 3 modules Conductor cross-section 4 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 DNV GL  
 UL 2237 PVVA2.E318390  
 CSA-C22.2 No. 182.3 PVVA8.E318390

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


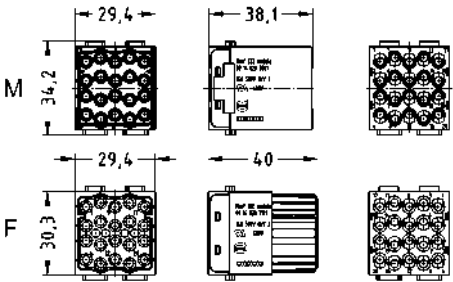

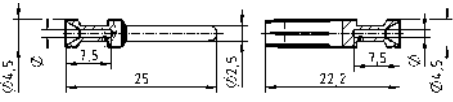

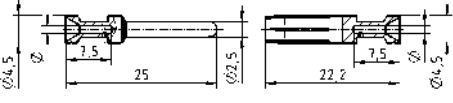
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts

# 20

16 A 500 V 6 kV 3

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																		
		Male	Female																			
Han-Modular®, Han® EEE module, Crimp termination  <p>Please order crimp contacts separately.</p>	0.14 ... 4	09 14 020 3001	09 14 020 3101	 <p>Contact arrangement (view from termination side)</p>																		
Han E®, Crimp contact, Contact surface: Silver plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5 3 4	09 33 000 6127 09 33 000 6121 09 33 000 6114 09 33 000 6105 09 33 000 6104 09 33 000 6102 09 33 000 6106 09 33 000 6107	09 33 000 6227 09 33 000 6220 09 33 000 6214 09 33 000 6205 09 33 000 6204 09 33 000 6202 09 33 000 6206 09 33 000 6207	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm<sup>2</sup> AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar</p> <p>Stripping length 7.5 mm</p>	Conductor cross-section	Identification	0.14-0.37 mm <sup>2</sup> AWG 26-22	no groove	0.5 mm <sup>2</sup> AWG 20	no groove	0.75 mm <sup>2</sup> AWG 18	1 groove*	1 mm <sup>2</sup> AWG 18	1 groove	1.5 mm <sup>2</sup> AWG 16	2 groove	2.5 mm <sup>2</sup> AWG 14	3 groove	3 mm <sup>2</sup> AWG 12	wide groove	4 mm <sup>2</sup> AWG 12	no groove
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## Features

- Reliable cage clamp termination
- No special tools required

## Technical characteristics

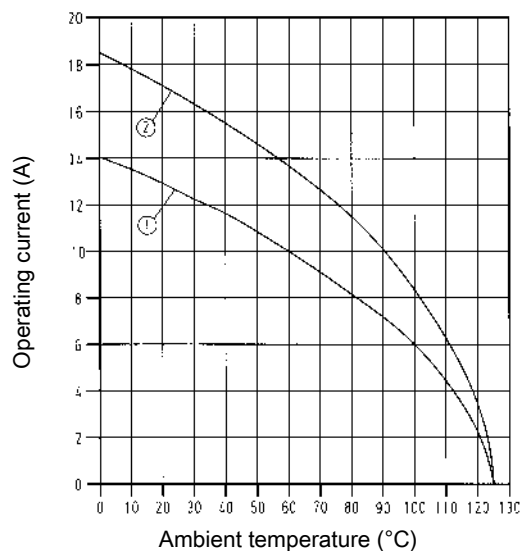
Number of contacts	5
Rated current	16 A
Rated voltage	400 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 3 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption, compliant

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① 24 B hoods/housings with 6 modules Conductor cross-section 1.5 mm<sup>2</sup>  
 ② 24 B hoods/housings with 6 modules Conductor cross-section 2.5 mm<sup>2</sup>

## Specifications and approvals


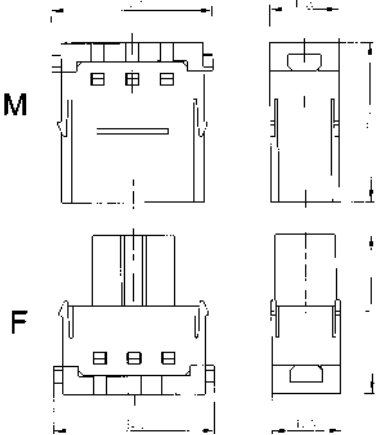
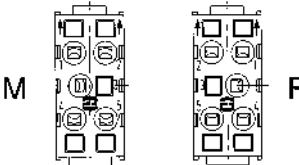
EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 UL 2237 PVVA2.E318390  
 CSA-C22.2 No. 182.3 PVVA8.E318390  
 DNV GL

Number of contacts

# 5

16 A 400 V 6 kV 3

Modu-  
lar

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han-Modular®, Han® ES module, Cage-clamp termination, Contact surface: Silver plated 	0.14 ... 2.5	09 14 005 2616	09 14 005 2716	
Han-Modular®, Han® ES module, Cage-clamp termination, Contact surface: Gold plated	0.14 ... 2.5	09 14 005 2617	09 14 005 2717	 <p>Contact arrangement (view from termination side)</p>

## Features

- Interface for typical motor applications such as frequency-controlled drives
- 4 power contacts (pin 4 is pre-leading to be used as a PE)
- 2 signal contacts for temperature monitoring or breaks
- EMC compatible connection of the cable screen with a large-area shielding plate
- Shielded power cables can now be connectorised in combination with other cables

## Technical characteristics

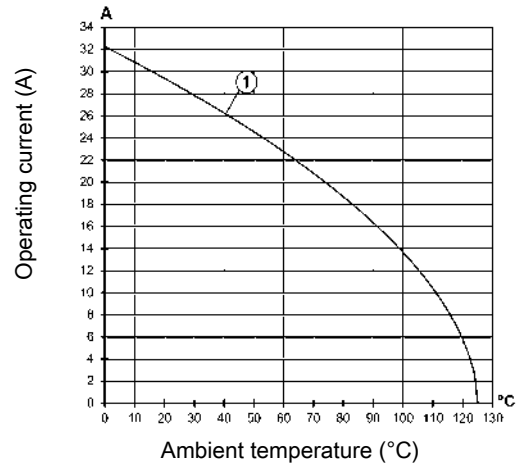
Number of contacts	4
Additional contacts	+ 2 additional signal contacts, + shielding
Rated current	16 A
Rated voltage	400 V
Rated impulse voltage	4 kV
Pollution degree	3
Rated current (signal)	10 A
Rated voltage (signal)	400 V
Rated impulse voltage (signal)	4 kV
Pollution degree (signal)	3
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 3 \text{ m}\Omega, \leq 1 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



① 24 B hoods/housings with 6 modules Conductor cross-section 4 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984

## Details

Contact resistance Han D® crimp contact:  $\leq 3 \text{ m}\Omega$

Contact resistance Han E® crimp contact:  $\leq 1 \text{ m}\Omega$

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


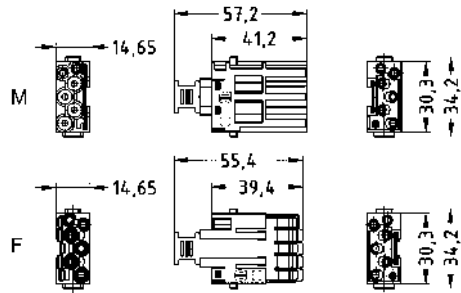

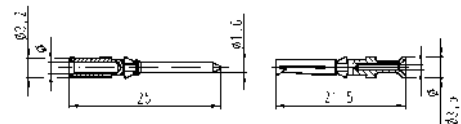

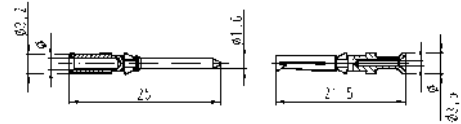
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.


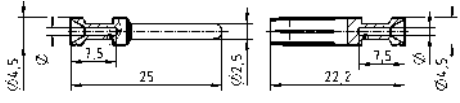

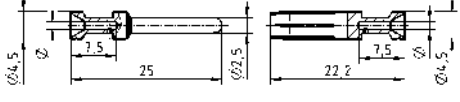
Number of contacts

# 4

16 A 400 V 4 kV 3  
 10 A 400 V 4 kV 3  
 + 2 additional signal contacts + shielding

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																												
		Male	Female																													
Han-Modular®, Han® Shielded power module, With shielding plate, Crimp termination  <p>Please order crimp contacts separately.                      4x Han E®                      2x Han D®</p>	0.14 ... 4	09 14 006 3021	09 14 006 3121	 <p>Contact arrangement (view from termination side)</p>																												
Han D®, Crimp contact, Contact surface: Silver plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 000 6104 09 15 000 6103 09 15 000 6105 09 15 000 6102 09 15 000 6101 09 15 000 6106	09 15 000 6204 09 15 000 6203 09 15 000 6205 09 15 000 6202 09 15 000 6201 09 15 000 6206	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	Ø	Stripping length	0.14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm
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Han D®, Crimp contact, Contact surface: Gold plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 000 6124 09 15 000 6123 09 15 000 6125 09 15 000 6122 09 15 000 6121 09 15 000 6126	09 15 000 6224 09 15 000 6223 09 15 000 6225 09 15 000 6222 09 15 000 6221 09 15 000 6226	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	Ø	Stripping length	0.14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm
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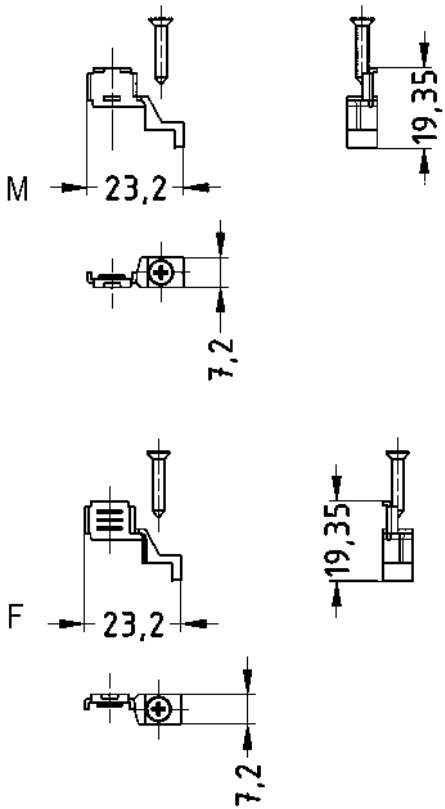

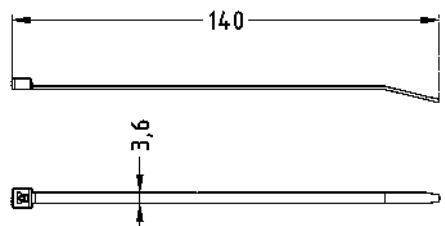
Modular

## Features

- Optional Shielding termination to the hinged frames with the GND adapter

## Technical characteristics

Material (accessories) Metal, Polyamide (PA)  
 Colour (accessories) Black

Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
Han® Shielded power module, GND Adapter 	09 14 000 9807	09 14 000 9808	
Cable tie, With metal latch 	09 14 000 9809	09 14 000 9809	

## Features

- Available in two versions: for Han® C or Han E® crimp contacts
- 2 contacts up to 5000 V
- Insulator out of a voltage resistant teflon material
- Combination with all other modules (pneumatic, signal etc.)

## Technical characteristics

Number of contacts	2
Rated current	40 A, 16 A
Rated voltage conductor-earth	2900 V
Rated voltage conductor-conductor	5000 V
Rated impulse voltage	15 kV
Pollution degree	3
Rated current acc. to UL	31 A, 16 A
Rated voltage acc. to UL	5000 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤1 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate / Teflon (PTFE)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

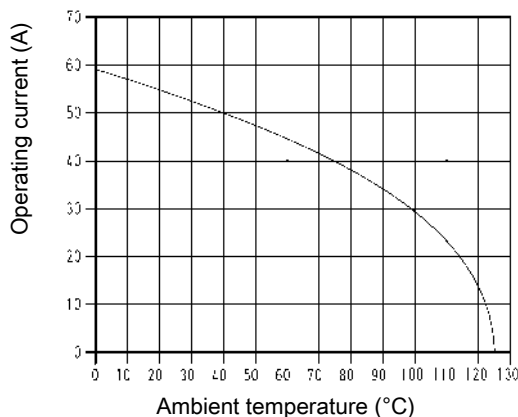
## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2

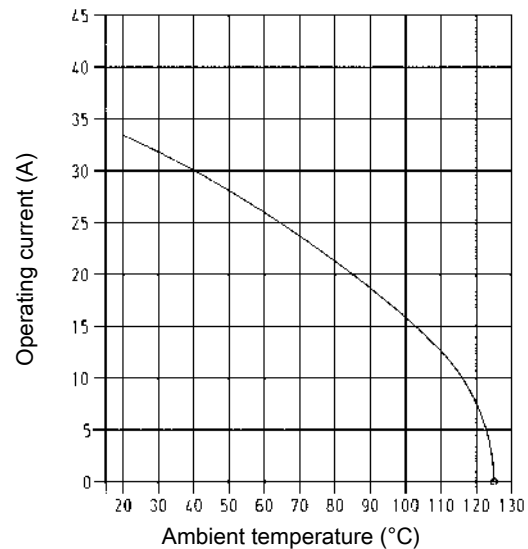
Han® C crimp contacts



① 24 B hoods/housings with 3 modules Conductor cross-section 6 mm<sup>2</sup>

## Derating

Han E® crimp contacts



① Housing Han® 16 B with 1 Han® HV module Conductor cross-section 2.5 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
EN 50124-1  
IEC 60352-4  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
DNV GL

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


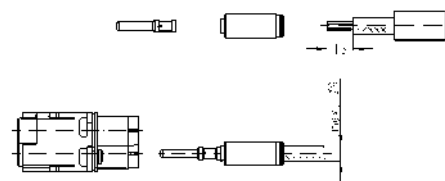
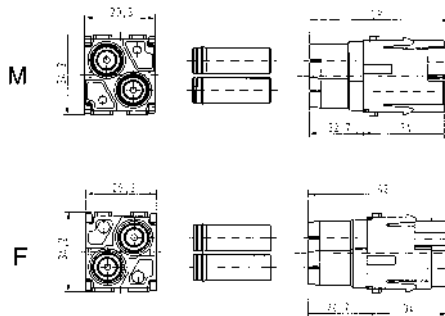

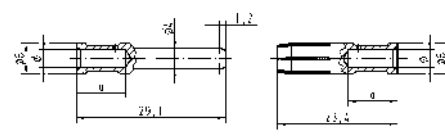
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts

# 2

40 A 2.900/5.000 V 15 kV 3

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han-Modular®, Han® HV module, for Han® C crimp contacts, Crimp termination,</p> <p>Pack contents: 1 module, 2 locking sleeves, 2 heat shrink tubes</p>  <p>Please order crimp contacts separately.</p>	1.5 ... 10	09 14 002 3023	09 14 002 3123	<p>Assembly instructions</p>  <p><b>ATTENTION!</b> Stripping length 13 mm Crimp with tool 09 99 000 0888, 09 99 000 0110 or 09 99 000 0377 Snap crimped cable in the insert. Shrink the heat shrink tube over the rear of contact.</p> 
<p>Han® C, Crimp contact, Contact surface: Silver plated</p> 	1.5 2.5 4 6 10	09 32 000 6104 09 32 000 6105 09 32 000 6107 09 32 000 6108 09 32 000 6109	09 32 000 6204 09 32 000 6205 09 32 000 6207 09 32 000 6208 09 32 000 6209	


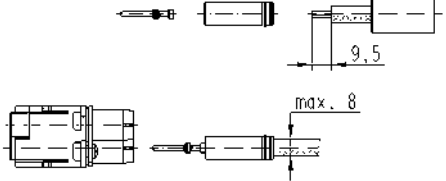
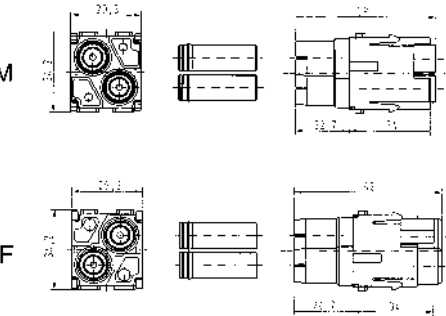
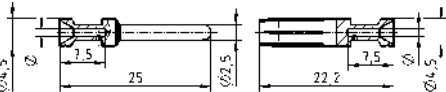



Number of contacts

# 2

16 A 2.900/5.000 V 15 kV 3

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han-Modular®, Han® HV module, for Han E® crimp contacts, Crimp termination, Pack contents: 1 module, 2 locking sleeves, 2 heat shrink tubes  <p>Please order crimp contacts separately.</p>	0.5 ... 4	09 14 002 3021	09 14 002 3121	Assembly instructions  <p><b>ATTENTION!</b> Stripping length 9.5 mm                      Crimp with crimping tool 09 99 000 0888                      Snap crimped cable in the insert.                      Shrink the heat shrink tube over the rear of contact.</p>  
Han E®, Crimp contact, Contact surface: Silver plated 	0.5 0.75 1 1.5 2.5 3 4	09 33 000 6121 09 33 000 6114 09 33 000 6105 09 33 000 6104 09 33 000 6102 09 33 000 6106 09 33 000 6107	09 33 000 6220 09 33 000 6214 09 33 000 6205 09 33 000 6204 09 33 000 6202 09 33 000 6206 09 33 000 6207	

Modu-  
lar

## Features

- Suitable for Han E® crimp contacts
- 2 contacts up to 2500 V
- Insulator out of a voltage resistant teflon material
- Combination with all other modules (pneumatic, signal etc.)

## Technical characteristics

Number of contacts	2
Rated current	16 A
Rated voltage	2500 V
Rated impulse voltage	15 kV
Pollution degree	3
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤1 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate / Teflon (PTFE)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

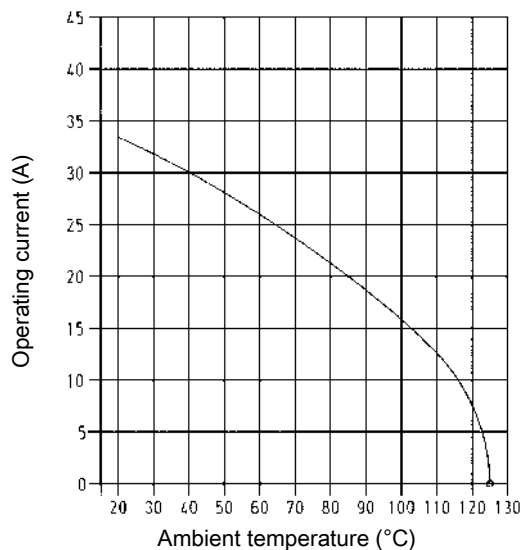
## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2

Han E® crimp contacts



① Housing Han® 16 B with 1 Han® HV module Conductor cross-section 2.5 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
EN 50124-1  
DNV GL

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


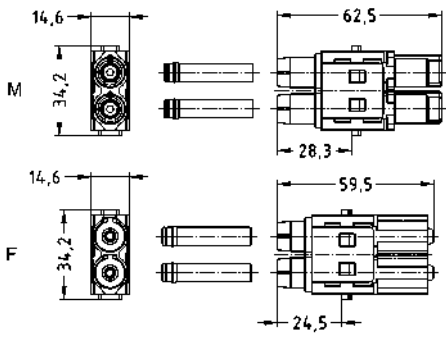
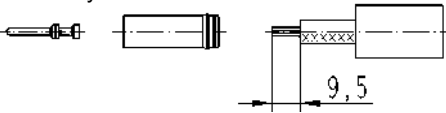

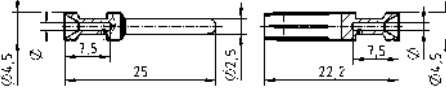
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts

# 2

16 A 2.500 V 15 kV 3

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han-Modular®, Han® HV module, Single module, Crimp termination,</p> <p>Pack contents: 1 module, 2 locking sleeves, 2 heat shrink tubes</p>  <p>Please order crimp contacts separately.</p>	0.5 ... 4	09 14 002 3025	09 14 002 3125	 <p>Assembly instructions</p>  <p><b>ATTENTION!</b> Stripping length 9.5 mm Crimp with crimping tool 09 99 000 0888 Snap crimped cable in the insert. Shrink the heat shrink tube over the rear of contact.</p>
<p>Han E®, Crimp contact, Contact surface: Silver plated</p> 	0.5 0.75 1 1.5 2.5 3 4	09 33 000 6121 09 33 000 6114 09 33 000 6105 09 33 000 6104 09 33 000 6102 09 33 000 6106 09 33 000 6107	09 33 000 6220 09 33 000 6214 09 33 000 6205 09 33 000 6204 09 33 000 6202 09 33 000 6206 09 33 000 6207	

## Features

- Han-Quick Lock<sup>®</sup> or crimp termination available
- Standard module for signal up to 10 A

## Technical characteristics

Number of contacts	12
Rated current	10 A
Rated voltage	250 V
Rated impulse voltage	4 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Mating cycles with other HMC components	≥10000
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption, compliant

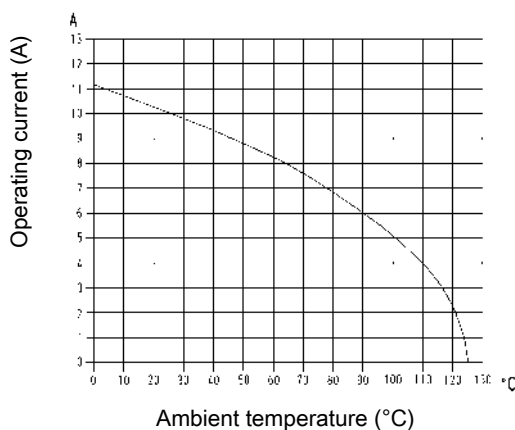
## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2

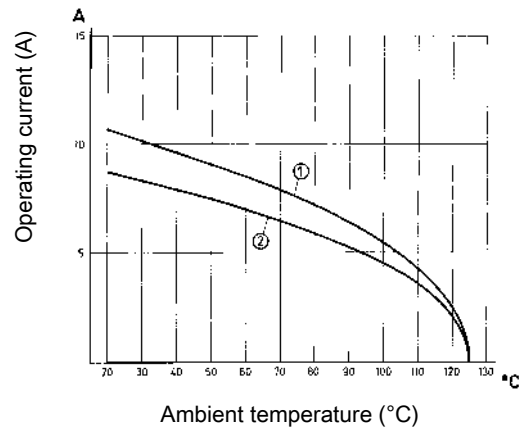
Han-Quick Lock<sup>®</sup> termination



① 24 B hoods/housings with 6 modules Conductor cross-section 1.5 mm<sup>2</sup>

## Derating

Crimp termination



① 24 B hoods/housings with 6 modules Conductor cross-section 1.5 mm<sup>2</sup>

② 24 B hoods/housings with 6 modules Conductor cross-section 1 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
DNV GL

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

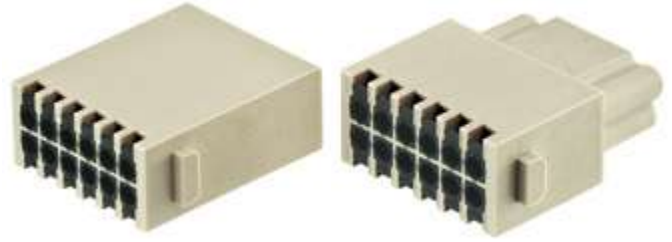
# Han DD<sup>®</sup> module



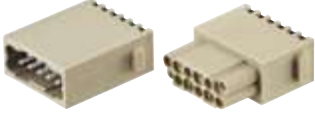
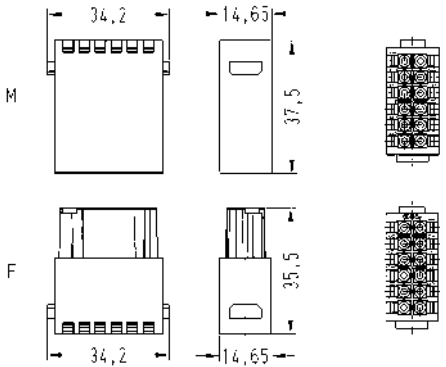
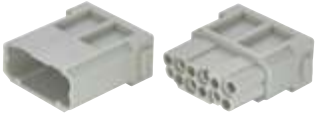
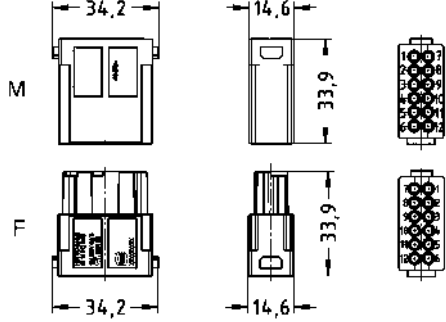
Number of contacts

# 12


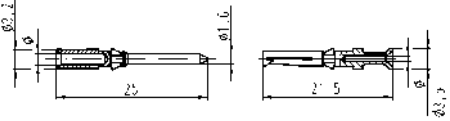

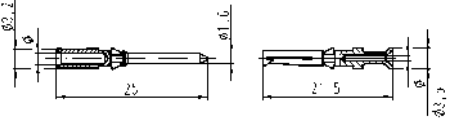


10 A 250 V 4 kV 3



Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han-Modular <sup>®</sup> , Han DD <sup>®</sup> module, Han-Quick Lock <sup>®</sup> termination, Contact surface: Silver plated   Black slide	0.25 ... 1.5	09 14 012 2632	09 14 012 2732	 Contact arrangement (view from termination side) Stripping length 10 mm
Han-Modular <sup>®</sup> , Han DD <sup>®</sup> module, Han-Quick Lock <sup>®</sup> termination, Contact surface: Gold plated Black slide	0.25 ... 1.5	09 14 012 2634	09 14 012 2734	
Han-Modular <sup>®</sup> , Han DD <sup>®</sup> module, Crimp termination   Please order crimp contacts separately.	0.14 ... 2.5	09 14 012 3002	09 14 012 3102	 Contact arrangement (view from termination side)

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																												
		Male	Female																													
Han D <sup>®</sup> , Crimp contact, Contact surface: Silver plated 	0.14 ... 0.37	09 15 000 6104	09 15 000 6204	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	Ø	Stripping length	0.14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm
	Conductor cross-section	AWG	Ø		Stripping length																											
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1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm																													
2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm																													
0.5	09 15 000 6103	09 15 000 6203																														
0.75	09 15 000 6105	09 15 000 6205																														
1	09 15 000 6102	09 15 000 6202																														
1.5	09 15 000 6101	09 15 000 6201																														
2.5	09 15 000 6106	09 15 000 6206																														
Han D <sup>®</sup> , Crimp contact, Contact surface: Gold plated 	0.14 ... 0.37	09 15 000 6124	09 15 000 6224	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	Ø	Stripping length	0.14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm
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2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm																													
0.5	09 15 000 6123	09 15 000 6223																														
0.75	09 15 000 6125	09 15 000 6225																														
1	09 15 000 6122	09 15 000 6222																														
1.5	09 15 000 6121	09 15 000 6221																														
2.5	09 15 000 6126	09 15 000 6226																														
FO contact, for 1 mm plastic fibre 		20 10 001 3211	20 10 001 3221	 <p>20 10 001 3211 + 20 10 001 3221</p>																												

## Features

- 36 Han D<sup>®</sup> contacts up to 400 V
- Suitable for transmitting power (10 A) and signals in one module
- e.g. for three phase AC motors including feedback for all six axes of a robot

## Technical characteristics

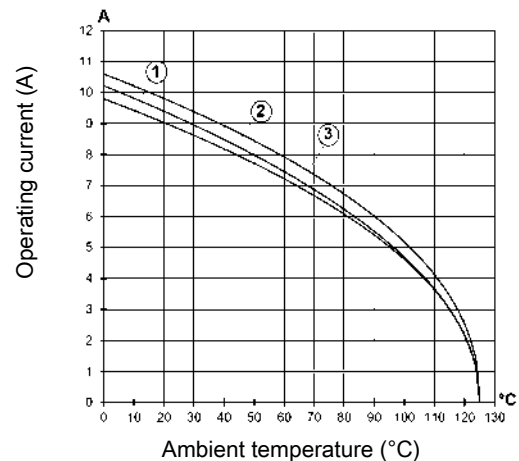
Number of contacts	36
Rated current	10 A
Rated voltage	400 V
Rated impulse voltage	6 kV
Pollution degree	3
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Mating cycles with other HMC components	≥10000
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① 24 B hoods/housings with 3 modules Conductor cross-section 1 mm<sup>2</sup>
- ② 24 B hoods/housings with 3 modules Conductor cross-section 1.5 mm<sup>2</sup>
- ③ 24 B hoods/housings with 3 modules Conductor cross-section 2.5 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


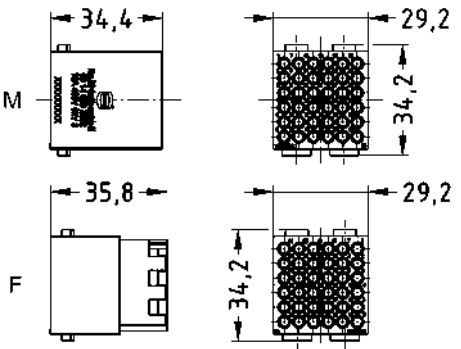
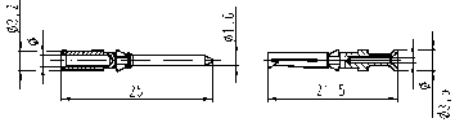

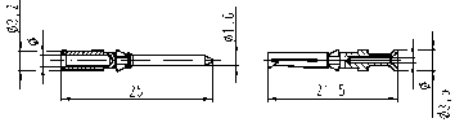

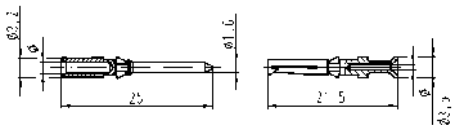
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts

# 36

10 A 400 V 6 kV 3

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																												
		Male	Female																													
<p>Han-Modular<sup>®</sup>, Han DD<sup>®</sup> module, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.14 ... 2.5	09 14 036 3002	09 14 036 3102	 <p>Contact arrangement (view from termination side)</p>  <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	Ø	Stripping length	0.14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm
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<p>Han D<sup>®</sup>, Crimp contact, Contact surface: Silver plated</p> 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 000 6104 09 15 000 6103 09 15 000 6105 09 15 000 6102 09 15 000 6101 09 15 000 6106	09 15 000 6204 09 15 000 6203 09 15 000 6205 09 15 000 6202 09 15 000 6201 09 15 000 6206	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	Ø	Stripping length	0.14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm
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2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm																													



## Technical characteristics

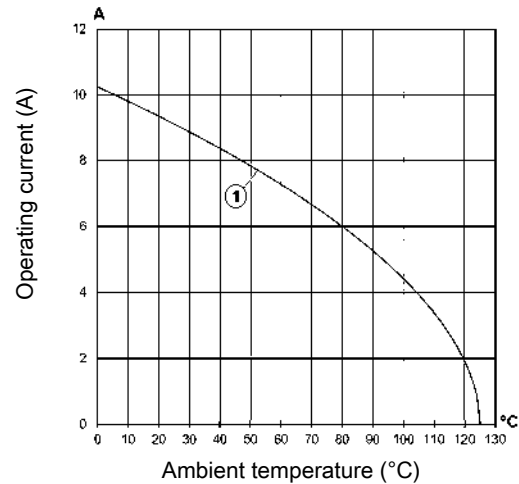
Number of contacts	42
Rated current	10 A
Rated voltage	150 V
Rated impulse voltage	2.5 kV
Pollution degree	3
Rated voltage acc. to UL	250 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Liquid crystal polymer (LCP)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



① 24 B hoods/housings with 3 modules Conductor cross-section 1.5 mm<sup>2</sup>

## Specifications and approvals

UL 1977 ECBT2.E235076  
 EN 60664-1  
 IEC 61984

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

# Han DD<sup>®</sup> Quad module


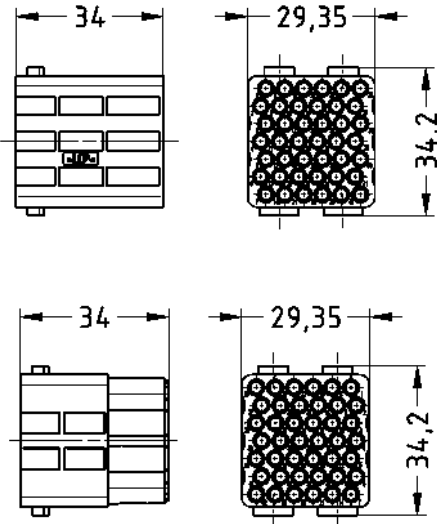

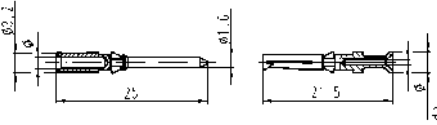

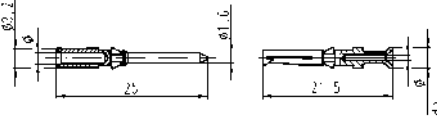


Number of contacts

# 42

10 A 150 V 2.5 kV 3

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																												
		Male	Female																													
Han-Modular <sup>®</sup> , Han DD <sup>®</sup> Quad module, Crimp termination  <p>Please order crimp contacts separately.</p>	0.14 ... 2.5	09 14 042 3001	09 14 042 3101																													
Han D <sup>®</sup> , Crimp contact, Contact surface: Silver plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 000 6104 09 15 000 6103 09 15 000 6105 09 15 000 6102 09 15 000 6101 09 15 000 6106	09 15 000 6204 09 15 000 6203 09 15 000 6205 09 15 000 6202 09 15 000 6201 09 15 000 6206	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	Ø	Stripping length	0.14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm
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## Features

- Suitable for Han D® crimp contacts
- High packing density

## Technical characteristics

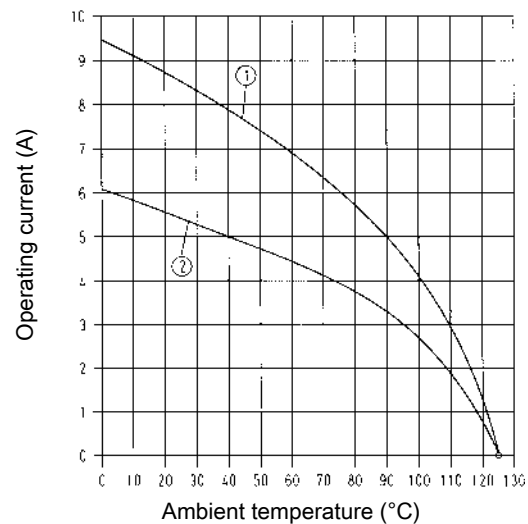
Number of contacts	17
Rated current	10 A
Rated voltage	160 V
Rated impulse voltage	2.5 kV
Pollution degree	3
Rated voltage acc. to UL	250 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 3 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Mating cycles with other HMC components	$\geq 10000$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① 24 B hoods/housings with 6 modules Conductor cross-section 1.5 mm<sup>2</sup>  
 ② 24 B hoods/housings with 6 modules Conductor cross-section 1 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 UL 2237 PVVA2.E318390  
 CSA-C22.2 No. 182.3 PVVA8.E318390  
 DNV GL

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


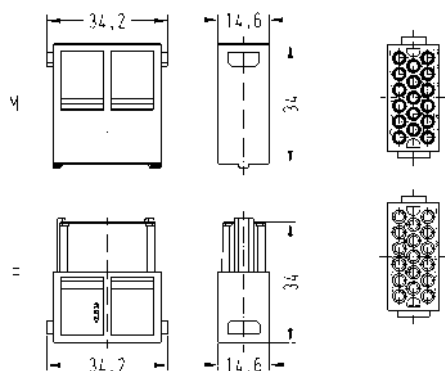

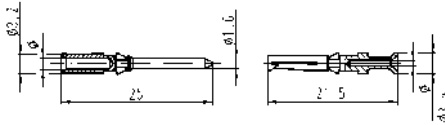

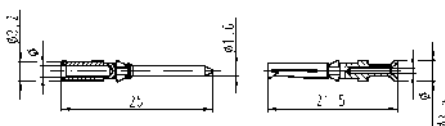

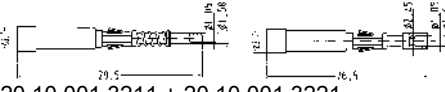
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts

# 17

10 A 160 V 2.5 kV 3

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																					
		Male	Female																						
Han-Modular®, Han® DDD module, Crimp termination  <p>Please order crimp contacts separately.</p>	0.14 ... 2.5	09 14 017 3001	09 14 017 3101	 <p>Contact arrangement (view from termination side)</p>																					
Han D®, Crimp contact, Contact surface: Silver plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 000 6104 09 15 000 6103 09 15 000 6105 09 15 000 6102 09 15 000 6101 09 15 000 6106	09 15 000 6204 09 15 000 6203 09 15 000 6205 09 15 000 6202 09 15 000 6201 09 15 000 6206	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	ø	Stripping length	0.14-0.37 mm <sup>2</sup> AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup> AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup> AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup> AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup> AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	6 mm
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Han D®, Crimp contact, Contact surface: Gold plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 000 6124 09 15 000 6123 09 15 000 6125 09 15 000 6122 09 15 000 6121 09 15 000 6126	09 15 000 6224 09 15 000 6223 09 15 000 6225 09 15 000 6222 09 15 000 6221 09 15 000 6226	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	ø	Stripping length	0.14-0.37 mm <sup>2</sup> AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup> AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup> AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup> AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup> AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	6 mm
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FO contact, for 1 mm plastic fibre 		20 10 001 3211	20 10 001 3221	 <p>20 10 001 3211 + 20 10 001 3221</p>																					

## Features

- Suitable for standard D-Sub crimp contacts
- High packing density

## Technical characteristics

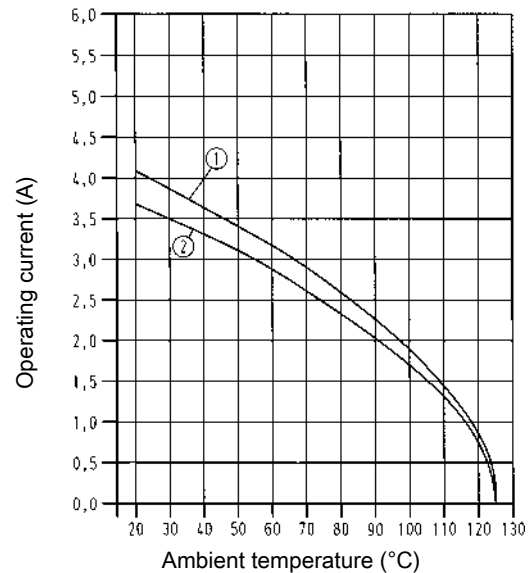
Number of contacts	25
Rated current	4 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Rated voltage acc. to UL	30 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 10 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① 24 B hoods/housings with 6 modules; turned contacts Conductor cross-section 0.5 mm<sup>2</sup>  
 ② 24 B hoods/housings with 6 modules; stamped contacts Conductor cross-section 0.5 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076

## Details

Guide pins and bushes are recommended (see chapter Han 80).

Number of contacts

# 25

4 A 50 V 0.8 kV 3

Modular

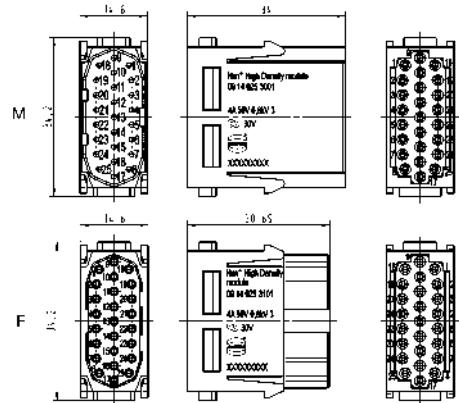
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	

Han-Modular®, Han® High Density module, Crimp termination



Please order crimp contacts separately.

0.09 ... 0.52	09 14 025 3001	09 14 025 3101
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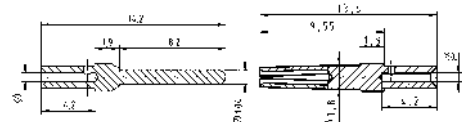


Contact arrangement (view from termination side)

D-Sub, Standard, Crimp contact



0.09 ... 0.25	09 67 000 7576	09 67 000 7476
0.13 ... 0.33	09 67 000 5576	09 67 000 5476
0.25 ... 0.52	09 67 000 8576	09 67 000 8476



Conductor cross-section	Ø	Stripping length
0.09-0.25 mm <sup>2</sup>	0.64 mm	4 mm
0.13-0.33 mm <sup>2</sup>	0.85 mm	4 mm
0.25-0.52 mm <sup>2</sup>	1.13 mm	4 mm
0.33-0.82 mm <sup>2</sup>	1.34 mm	4 mm

for stranded wire according IEC 60228 Class 5

## Features

- Suitable for standard D-Sub crimp contacts
- 44 % higher density

## Technical characteristics

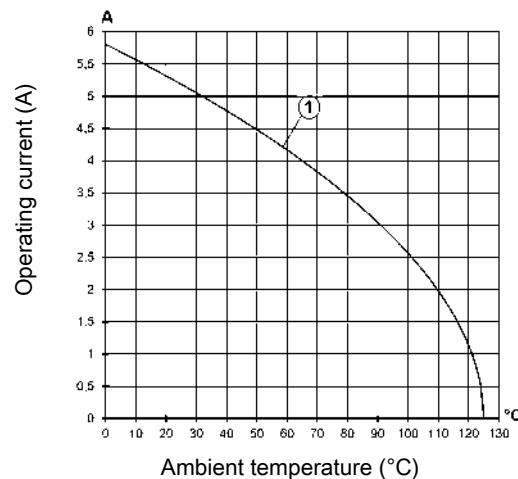
Number of contacts	36
Rated current	4 A
Rated voltage	32 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤10 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



① 6 B hoods/housings with 2 modules Conductor cross-section 0.5 mm<sup>2</sup>

## Specifications and approvals

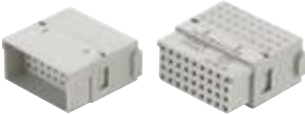
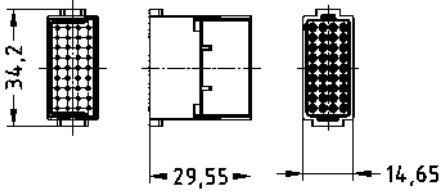
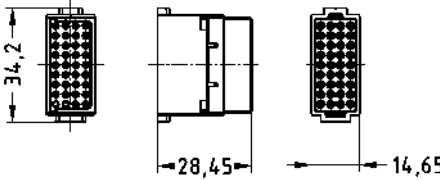

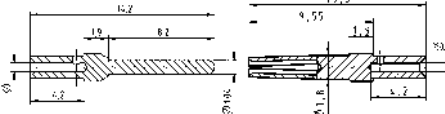
EN 60664-1  
IEC 61984

Number of contacts

# 36

4 A 32 V 0.8 kV 3

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)															
		Male	Female																
Han-Modular®, Han® Full High Density module, Crimp termination  <p>Please order crimp contacts separately.</p>	0.09 ... 0.52	09 14 036 3001	09 14 036 3101	 															
D-Sub, Standard, Crimp contact 	0.09 ... 0.25 0.13 ... 0.33 0.25 ... 0.52	09 67 000 7576 09 67 000 5576 09 67 000 8576	09 67 000 7476 09 67 000 5476 09 67 000 8476	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.09-0.25 mm<sup>2</sup></td> <td>0.64 mm</td> <td>4 mm</td> </tr> <tr> <td>0.13-0.33 mm<sup>2</sup></td> <td>0.86 mm</td> <td>4 mm</td> </tr> <tr> <td>0.25-0.52 mm<sup>2</sup></td> <td>1.13 mm</td> <td>4 mm</td> </tr> <tr> <td>0.33-0.82 mm<sup>2</sup></td> <td>1.34 mm</td> <td>4 mm</td> </tr> </tbody> </table> <p>for stranded wire according IEC 60228 Class 5</p>	Conductor cross-section	Ø	Stripping length	0.09-0.25 mm <sup>2</sup>	0.64 mm	4 mm	0.13-0.33 mm <sup>2</sup>	0.86 mm	4 mm	0.25-0.52 mm <sup>2</sup>	1.13 mm	4 mm	0.33-0.82 mm <sup>2</sup>	1.34 mm	4 mm
Conductor cross-section	Ø	Stripping length																	
0.09-0.25 mm <sup>2</sup>	0.64 mm	4 mm																	
0.13-0.33 mm <sup>2</sup>	0.86 mm	4 mm																	
0.25-0.52 mm <sup>2</sup>	1.13 mm	4 mm																	
0.33-0.82 mm <sup>2</sup>	1.34 mm	4 mm																	



## Features

- EMC compatible connection of the cable screen with a large-area shielding plate
- High contact density up to 27 shielded contacts
- Suitable for turned or stamped D-Sub contacts
- Applicable as cost effective shielding connection

## Technical characteristics

Number of contacts	27
Additional contacts	+ shielding
Rated current	4 A
Rated voltage	32 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 10 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Polyamide (PA), Metal
Colour (accessories)	Black
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Specifications and approvals


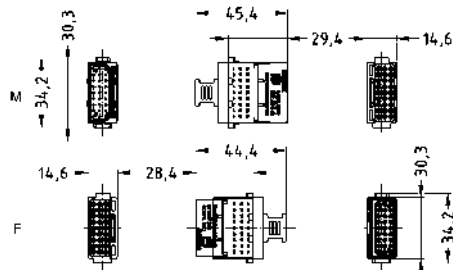

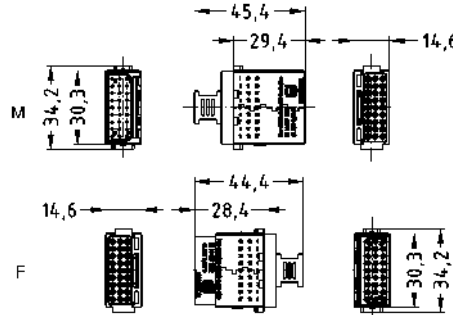

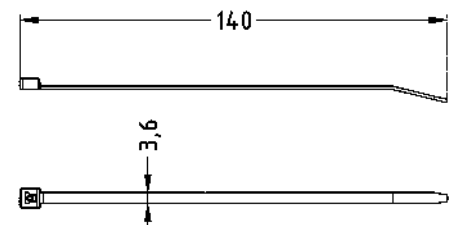

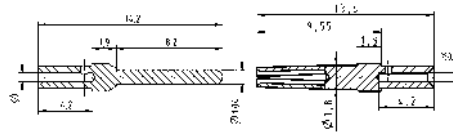
EN 60664-1  
IEC 61984

Number of contacts

# 27

4 A 32 V 0.8 kV 3  
+ shielding

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)															
		Male	Female																
<p>Han-Modular®, Han® Shielded module basic, With 180° shielding element, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.09 ... 0.52	09 14 027 3021	09 14 027 3121																
<p>Han-Modular®, Han® Shielded module basic plus, With 360° shielding element, Crimp termination</p>  <p>With additional shield connection to the hinged frame Please order crimp contacts separately.</p>	0.09 ... 0.52	09 14 027 3022	09 14 027 3122																
<p>Cable tie, With metal latch</p> 		09 14 000 9809	09 14 000 9809																
<p>D-Sub, Standard, Crimp contact</p> 	0.09 ... 0.25 0.13 ... 0.33 0.25 ... 0.52	09 67 000 7576 09 67 000 5576 09 67 000 8576	09 67 000 7476 09 67 000 5476 09 67 000 8476	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.09-0.25 mm<sup>2</sup></td> <td>0.64 mm</td> <td>4 mm</td> </tr> <tr> <td>0.13-0.33 mm<sup>2</sup></td> <td>0.86 mm</td> <td>4 mm</td> </tr> <tr> <td>0.25-0.52 mm<sup>2</sup></td> <td>1.13 mm</td> <td>4 mm</td> </tr> <tr> <td>0.33-0.82 mm<sup>2</sup></td> <td>1.34 mm</td> <td>4 mm</td> </tr> </tbody> </table> <p>for stranded wire according IEC 60228 Class 5</p>	Conductor cross-section	Ø	Stripping length	0.09-0.25 mm <sup>2</sup>	0.64 mm	4 mm	0.13-0.33 mm <sup>2</sup>	0.86 mm	4 mm	0.25-0.52 mm <sup>2</sup>	1.13 mm	4 mm	0.33-0.82 mm <sup>2</sup>	1.34 mm	4 mm
Conductor cross-section	Ø	Stripping length																	
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0.25-0.52 mm <sup>2</sup>	1.13 mm	4 mm																	
0.33-0.82 mm <sup>2</sup>	1.34 mm	4 mm																	

## Features

- D-Sub 1 (9-pin) in the Han-Modular® system
- Suitable for the transmission of sensitive signals
- Compatible to crimp, solder or IDC termination

## Technical characteristics

Number of contacts	9
Rated current	5 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Rated voltage acc. to UL	30 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 10 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC), Zinc die-cast
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
DNV GL

## Details

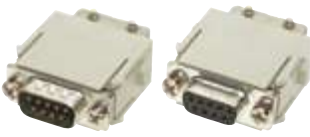
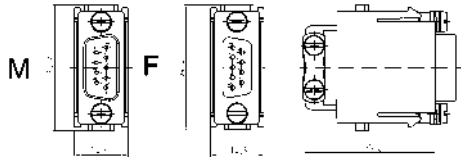

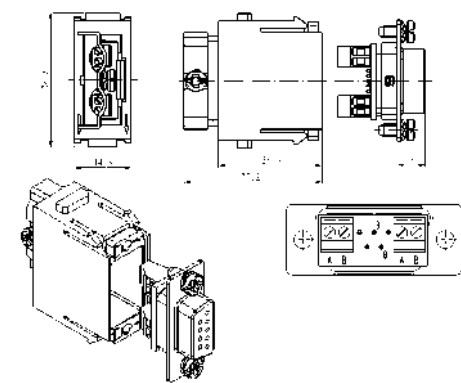

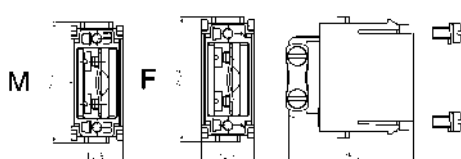
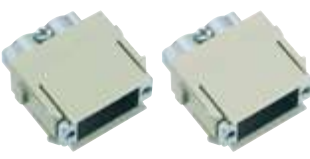
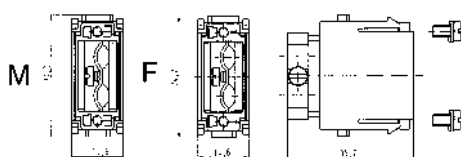
Guide pins and bushes are recommended (see chapter Han 80).


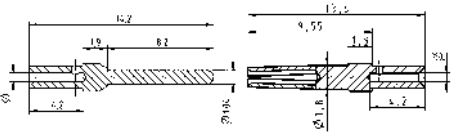
Number of contacts

# 9

5 A 50 V 0.8 kV 3

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han-Modular®, Han® D-Sub module, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.08 ... 0.52	09 14 009 3001	09 14 009 3101	
<p>Han-Modular®, Han® D-Sub module, Screw termination</p>  <p>for RS 485-based bus systems with T-functionality</p>	0.08 ... 0.52		09 14 009 3151	 <p>Contact arrangement (view from termination side) Signal A: Contact no. 8 Signal B: Contact no. 3</p>
<p>Han-Modular®, Adapter module, for D-Sub 1 (9-pin)</p>  <p>for one cable</p>		09 14 000 9930	09 14 000 9931	
<p>Han-Modular®, Adapter module, for D-Sub 1 (9-pin)</p>  <p>for two cables</p>		09 14 000 9932	09 14 000 9933	

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)															
		Male	Female																
D-Sub, Standard, Crimp contact  	0.09 ... 0.25	09 67 000 7576	09 67 000 7476	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.09-0.25 mm<sup>2</sup></td> <td>0.64 mm</td> <td>4 mm</td> </tr> <tr> <td>0.13-0.33 mm<sup>2</sup></td> <td>0.88 mm</td> <td>4 mm</td> </tr> <tr> <td>0.25-0.52 mm<sup>2</sup></td> <td>1.13 mm</td> <td>4 mm</td> </tr> <tr> <td>0.33-0.82 mm<sup>2</sup></td> <td>1.34 mm</td> <td>4 mm</td> </tr> </tbody> </table> <p>for stranded wire according IEC 60228 Class 5</p>	Conductor cross-section	ø	Stripping length	0.09-0.25 mm <sup>2</sup>	0.64 mm	4 mm	0.13-0.33 mm <sup>2</sup>	0.88 mm	4 mm	0.25-0.52 mm <sup>2</sup>	1.13 mm	4 mm	0.33-0.82 mm <sup>2</sup>	1.34 mm	4 mm
	Conductor cross-section	ø	Stripping length																
	0.09-0.25 mm <sup>2</sup>	0.64 mm	4 mm																
0.13-0.33 mm <sup>2</sup>	0.88 mm	4 mm																	
0.25-0.52 mm <sup>2</sup>	1.13 mm	4 mm																	
0.33-0.82 mm <sup>2</sup>	1.34 mm	4 mm																	
0.13 ... 0.33	09 67 000 5576	09 67 000 5476																	
0.25 ... 0.52	09 67 000 8576	09 67 000 8476																	

Modular

## Features

- According to USB 2.0 / USB 3.0 specification
- Simple and cost effective termination by plug in patch cable
- Cable tie strain relief

## Technical characteristics

Number of contacts	4, 8
Rated current	1 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Rated voltage acc. to UL	30 V
Insulation resistance	$>10^{10} \Omega$
Limiting temperature	-40 ... +85 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Specifications and approvals


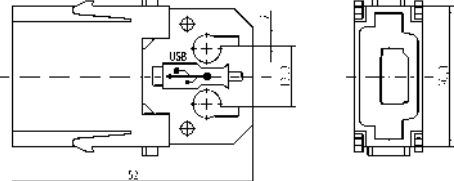

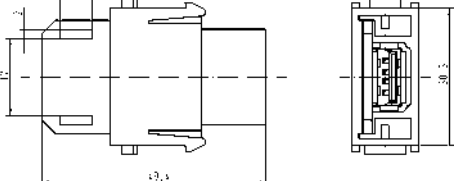

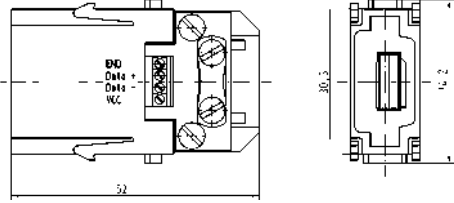
EN 60664-1  
IEC 60352-4  
UL 1977 ECBT2.E235076  
DNV GL

Number of contacts

# 4

1 A 50 V 0.8 kV 3

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han-Modular®, Han® USB module, for patch cable   USB 2.0	0.14 ... 0.5	09 14 001 4601	09 14 001 4701	
Han-Modular®, Han® USB module, for patch cable   USB 3.0		09 14 001 4703		
Han-Modular®, Han® USB module, for screw termination, Screw termination   USB 2.0		Stripping length 4.5 mm Tightening torque 0.12 Nm		

1 A 50 V 0.8 kV 3

Modular

## Features


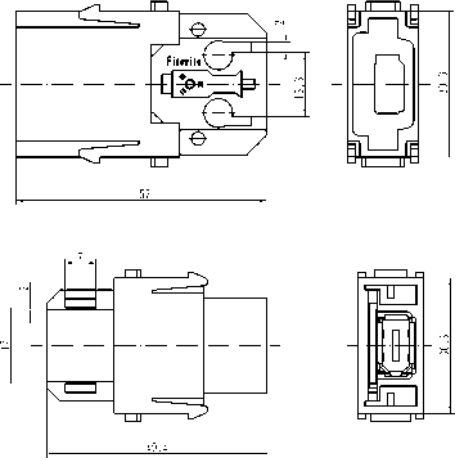
- Compatible to IEEE 1394
- Simple and cost effective termination by plug in patch cable
- Cable tie strain relief

## Technical characteristics

Number of contacts	6
Rated current	1 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Insulation resistance	>10 <sup>10</sup> Ω
Limiting temperature	-40 ... +85 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
DNV GL

Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
Han-Modular®, Han® FireWire module, for patch cable  	09 14 001 4611	09 14 001 4711	



Number of contacts

# 8

Modular

## Features


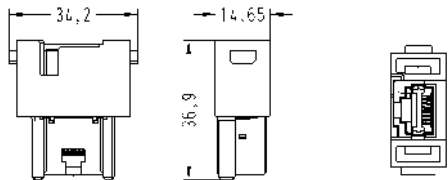

- Single module with standard shielded RJ45 plug and jack
- Cat. 6 for all data pairs (8-pin)
- Patch cables are assembled/removed without tools

## Technical characteristics




Number of contacts	8, 4
Rated current	1 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Rated voltage acc. to UL	30 V
Insulation resistance	$>10^{10} \Omega$
Limiting temperature	-40 ... +70 °C
Mating cycles	$\geq 500$
Transmission characteristics	Cat. 6A, Class E <sub>A</sub> up to 500 MHz, Cat. 5, Class D up to 100 MHz
Data rate	10 Mbit/s, 100 Mbit/s, 1 Gbit/s, 10 Gbit/s
Material (insert)	Polyamide (PA), Polycarbonate (PC), Zinc die-cast, nickel-plated
Material (shielding)	Zinc die-cast, nickel-plated
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Specifications and approvals

EN 60664-1  
IEC 61984  
DNV GL  
UL 1977 ECBT2.E235076

Identification	Part number	Drawing (dimensions in mm)
Han-Modular®, Han® RJ45 module, Gender changer, for patch cable, 8-pins, Cat. 6A  	09 14 001 4721	
Han-Modular®, Han® RJ45 module, Single module  	09 14 001 4722	
Please order insert separately.		

Modular

Identification		Part number Female	Drawing (dimensions in mm)
<p>Data connectors, Han® RJ45 cable jack, preLink® IDC insulation displacement termination, 8-pins, Cat. 6<sub>A</sub></p> 	AWG 23 ... AWG 22	09 14 008 4720	
<p>Data connectors, Han® RJ45 cable jack, IDC termination, 4-pin, Cat. 5</p> 	AWG 24 ... AWG 22	09 14 545 1120	
<p>Data connectors, Han® RJ45 cable jack, IDC termination, 8-pins, Cat. 6<sub>A</sub></p> 	AWG 24 ... AWG 22 AWG 28 ... AWG 24	09 14 545 1562 09 14 545 1561	

## Features


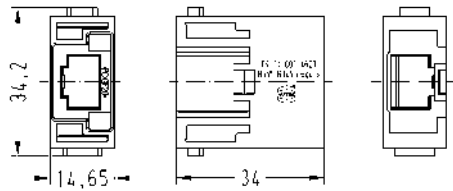

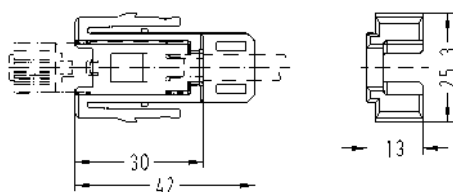
- Single module with standard shielded RJ45 plug and jack
- The RJ45 inserts are protected by a reliable plastic insulator
- 360° shielded contact
- Field assembly without tools possible by means of *HARAX®* rapid termination in IDC technology
- Suitable for termination of massive and flexible wires

## Technical characteristics

Number of contacts	4
Insulation resistance	$>10^{10} \Omega$
Limiting temperature	-40 ... +70 °C
Mating cycles	$\geq 500$
Wire outer diameter	$\leq 1.6$ mm
Transmission characteristics	Cat. 5, Class D up to 100 MHz
Data rate	10 Mbit/s, 100 Mbit/s
Material (insert)	Polycarbonate (PC), Polyamide (PA)
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Specifications and approvals

EN 60664-1  
IEC 61984  
DNV GL  
IEC 60603-7  
DIN EN 45545-2 R26: HL1, HL2, HL3

Identification		Part number Male	Drawing (dimensions in mm)
Han-Modular®, Han® RJ45 module, Single module  		09 14 001 4623	
Data connectors, RJ Industrial RJ45 connector set, Shielded  	AWG 24 ... AWG 22 AWG 26	09 45 400 1100 09 45 400 1109	 <p>Wire outer diameter <math>\leq 1.6</math> mm</p>

Number of contacts

# 8

Modular

## Features


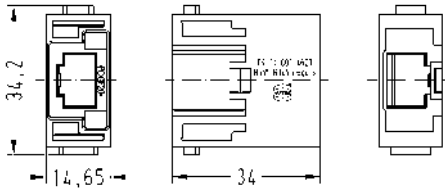

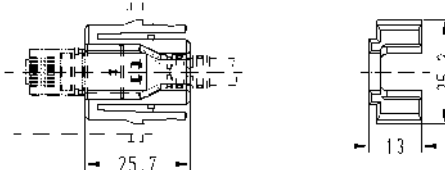
- Single module with standard shielded RJ45 plug and jack
- The RJ45 inserts are protected by a reliable plastic insulator
- 360° shielded contact
- Field assembly without tools possible by means of *HARAX*® rapid termination in IDC technology
- Gigalink: Field assembly by means of piercing contacts (Assembly tool 09 45 800 0520)
- Suitable for termination of massive and flexible wires
- Gigalink: Suitable for termination of flexible wires


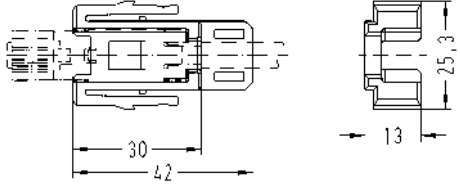
## Technical characteristics

Number of contacts	8
Insulation resistance	$>10^{10} \Omega$
Limiting temperature	-40 ... +70 °C
Mating cycles	$\geq 500$
Wire outer diameter	$\leq 1.05 \text{ mm}, \leq 1.5 \text{ mm}$
Transmission characteristics	Cat. 6A, Class E <sub>A</sub> up to 500 MHz, Cat. 6, Class E up to 250 MHz
Data rate	10 Mbit/s, 100 Mbit/s, 1 Gbit/s, 10 Gbit/s
Material (insert)	Polycarbonate (PC), Polyamide (PA)
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Specifications and approvals

EN 60664-1  
IEC 61984  
IEC 60603-7  
DIN EN 45545-2 R22: HL1, HL2, HL3  
DIN EN 45545-2 R23: HL1, HL2, HL3  
UL 1977 ECBT2.E102079  
CSA-C22.2 No. 182.3 ECBT8.E102079  
DNV GL

Identification		Part number Male	Drawing (dimensions in mm)
Han-Modular®, Han® RJ45 module, Single module  		09 14 001 4623	
Data connectors, RJ Industrial RJ45 Gigalink connector set, Piercing termination, Fully shielded, 360° shielding contact, Cat. 6 <sub>A</sub>  	AWG 28 ... AWG 24	09 45 400 1520	 <p>Wire outer diameter <math>\leq 1.05 \text{ mm}</math></p>

Identification	Part number	Male	Drawing (dimensions in mm)
<p>Data connectors, RJ Industrial RJ45 connector set, Shielded, Cat. 6</p> 	<p>AWG 27 ... AWG 22</p>	<p>09 45 400 1560</p>	 <p>Wire outer diameter <math>\leq 1.5</math> mm</p>

Modular

## Features


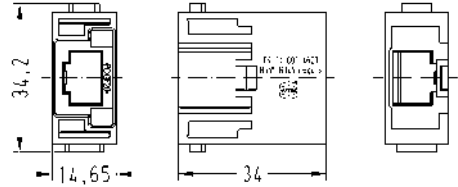

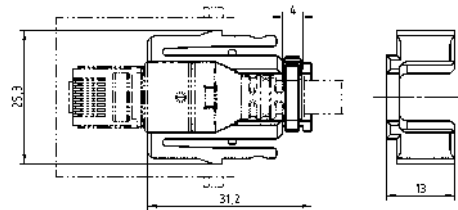
- Single module with standard shielded RJ45 plug and jack
- The RJ45 inserts are protected by a reliable plastic insulator
- Patch cables are assembled/removed without tools

## Technical characteristics

Insulation resistance	>10 <sup>10</sup> Ω
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Specifications and approvals

EN 60664-1  
IEC 61984  
DNV GL

Identification	Part number	Male	Drawing (dimensions in mm)
Han-Modular®, Han® RJ45 module, Single module 	09 14 001 4623		
Han-Modular®, Han® RJ45 module, Adapter, for patch cable 	09 14 000 9966		

4x 2 Twisted Pair  
 HARTING RJ Industrial®  
 HARTING RJ Industrial®



Modular

## Features

- Locking lever protection for RJ45 connector latch
- Very short plug design in combination with robust bend protection
- Fully EMC screened (aluminium-clad foil and braid)

## Technical characteristics

Number of cores	8
Core structure	4x 2 Twisted Pair
Connector 1	HARTING RJ Industrial®
Connector 2	HARTING RJ Industrial®
Limiting temperature	-30 ... +75 °C unmoved, -5 ... +50 °C moved
Degree of protection acc. to IEC 60529	IP20
Transmission characteristics	Cat. 5e, Class D up to 100 MHz
Data rate	10 Mbit/s, 100 Mbit/s, 1 Gbit/s
Material (cable)	PUR (polyurethane)
Colour (cable)	Yellow
RoHS	compliant

## Specifications and approvals

IEC 11801  
 IEC 24702  
 IEC 61935-2



## Details

Other cable lengths on request!

Identification	Cable length	Part number	Drawing (dimensions in mm)
RJ45, Copper cable (round), Halogen-free, Oil resistant, Cable assemblies, Pre-assembled on both sides, IP20	0.2 m	09 47 474 7001	
	0.3 m	09 47 474 7002	
	0.4 m	09 47 474 7003	
	0.5 m	09 47 474 7004	
	0.6 m	09 47 474 7005	
	0.7 m	09 47 474 7006	
	0.8 m	09 47 474 7007	
	0.9 m	09 47 474 7008	
	1 m	09 47 474 7009	
	1.5 m	09 47 474 7010	
	2 m	09 47 474 7011	
	2.5 m	09 47 474 7012	
	3 m	09 47 474 7013	
	3.5 m	09 47 474 7024	
	4 m	09 47 474 7014	
	5 m	09 47 474 7015	
	6 m	09 47 474 7016	
	7 m	09 47 474 7017	
	7.5 m	09 47 474 7018	
	8 m	09 47 474 7019	
	9 m	09 47 474 7020	
	10 m	09 47 474 7021	
	12 m	09 47 474 7035	
	15 m	09 47 474 7022	
	20 m	09 47 474 7023	
	25 m	09 47 474 7025	
	30 m	09 47 474 7027	
	35 m	09 47 474 7026	
	40 m	09 47 474 7028	
50 m	09 47 474 7029		

4x 2 Twisted Pair  
 HARTING RJ Industrial®  
 HARTING RJ Industrial®



Modular

## Features

- Locking lever protection for RJ45 connector latch
- Very short plug design in combination with robust bend protection
- Fully EMC screened (aluminium-clad foil and braid)

## Technical characteristics

Number of cores	8
Core structure	4x 2 Twisted Pair
Connector 1	HARTING RJ Industrial®
Connector 2	HARTING RJ Industrial®
Limiting temperature	-30 ... +75 °C unmoved, -5 ... +50 °C moved
Degree of protection acc. to IEC 60529	IP20
Transmission characteristics	Cat. 6A, Class E <sub>A</sub> up to 500 MHz
Data rate	10 Mbit/s, 100 Mbit/s, 1 Gbit/s, 2.5 Gbit/s, 5 Gbit/s, 10 Gbit/s
Material (cable)	PUR (polyurethane)
Colour (cable)	Yellow
RoHS	compliant

## Specifications and approvals

IEC 11801  
 IEC 61156-6  
 IEC 24702



## Details

Other cable lengths on request!

Identification	Cable length	Part number	Drawing (dimensions in mm)
RJ45, Copper cable (round), Wiring 1:1, Halogen-free, Oil resistant, Cable assemblies, Pre-assembled on both sides, IP20	0.2 m	09 47 474 7101	
	0.3 m	09 47 474 7102	
	0.4 m	09 47 474 7103	
	0.5 m	09 47 474 7104	
	0.6 m	09 47 474 7105	
	0.7 m	09 47 474 7106	
	0.8 m	09 47 474 7107	
	0.9 m	09 47 474 7108	
	1 m	09 47 474 7109	
	1.5 m	09 47 474 7110	
	2 m	09 47 474 7111	
	2.5 m	09 47 474 7112	
	3 m	09 47 474 7113	
	4 m	09 47 474 7114	
	5 m	09 47 474 7115	
	6 m	09 47 474 7116	
	7 m	09 47 474 7117	
	7.5 m	09 47 474 7118	
	8 m	09 47 474 7119	
	9 m	09 47 474 7120	
10 m	09 47 474 7121		
15 m	09 47 474 7122		
16 m	09 47 474 7124		
20 m	09 47 474 7123		
25 m	09 47 474 7126		
30 m	09 47 474 7125		
100 m	09 47 474 7199		



## Features

- Shielding bus separate from housing potential
- Suitable for the transmission of sensitive signals (e.g. bus signals)
- Usable for Gigabit Ethernet cat. 6A
- Suitable for PoE++

## Technical characteristics

Number of contacts	8
Additional contacts	+ shielding
Rated current	5 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Rated voltage	50 V AC, 60 V DC
Rated voltage acc. to UL	30 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤10 mΩ
Contact resistance, shielding	≤100 mΩ
Limiting temperature	-40 ... +85 °C
Mating cycles	≥500
Transmission characteristics	Cat. 6A, Class E <sub>A</sub> up to 500 MHz, Cat. 7A, Class F <sub>A</sub> up to 1,000 MHz
Data rate	10 Mbit/s, 100 Mbit/s, 1 Gbit/s, 10 Gbit/s
Material (insert)	Polycarbonate (PC)
Material (shielding)	Zinc die-cast, nickel-plated
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL


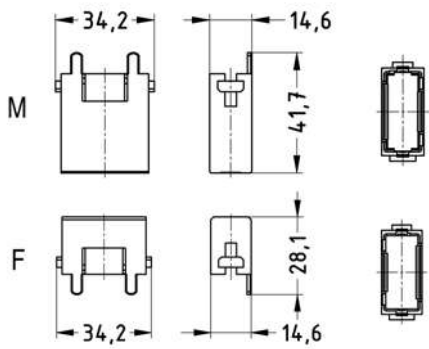

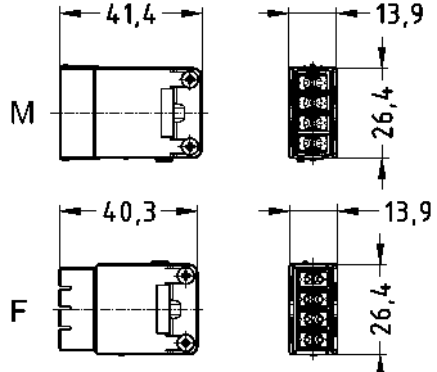

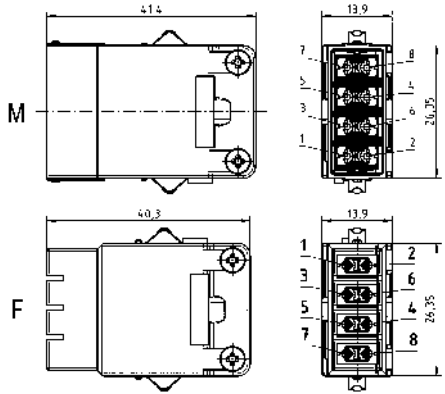
Modular


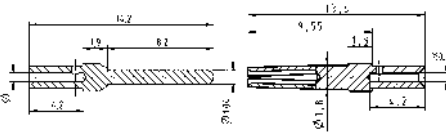
Number of contacts

# 8

5 A 50 V 0.8 kV 3  
+ shielding

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han-Modular®, Adapter module, Han® Gigabit module, Han® Shielded module, Han® Megabit module</p> 		09 14 001 3011	09 14 001 3111	
<p>Han® Gigabit insert, Crimp termination, Cat. 6A</p>  <p>Please order crimp contacts separately. Please order adapter module separately. Please order cable clamp or crimp flange separately.</p>	0.09 ... 0.52	09 14 008 3011	09 14 008 3111	 <p>Cable outer diameter ≤ 14 mm</p>
<p>Han® Gigabit insert, Crimp termination, Cat. 6A</p>  <p>With additional shield connection to the hinged frame Please order crimp contacts separately. Please order adapter module separately.</p>	0.09 ... 0.52	09 14 008 3012	09 14 008 3112	 <p>Cable outer diameter ≤ 14 mm</p>

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)															
		Male	Female																
D-Sub, Standard, Crimp contact  	0.09 ... 0.25	09 67 000 7576	09 67 000 7476	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.09-0.25 mm<sup>2</sup></td> <td>0.64 mm</td> <td>4 mm</td> </tr> <tr> <td>0.13-0.33 mm<sup>2</sup></td> <td>0.88 mm</td> <td>4 mm</td> </tr> <tr> <td>0.25-0.52 mm<sup>2</sup></td> <td>1.13 mm</td> <td>4 mm</td> </tr> <tr> <td>0.33-0.82 mm<sup>2</sup></td> <td>1.34 mm</td> <td>4 mm</td> </tr> </tbody> </table> <p>for stranded wire according IEC 60228 Class 5</p>	Conductor cross-section	ø	Stripping length	0.09-0.25 mm <sup>2</sup>	0.64 mm	4 mm	0.13-0.33 mm <sup>2</sup>	0.88 mm	4 mm	0.25-0.52 mm <sup>2</sup>	1.13 mm	4 mm	0.33-0.82 mm <sup>2</sup>	1.34 mm	4 mm
	Conductor cross-section	ø	Stripping length																
	0.09-0.25 mm <sup>2</sup>	0.64 mm	4 mm																
0.13-0.33 mm <sup>2</sup>	0.88 mm	4 mm																	
0.25-0.52 mm <sup>2</sup>	1.13 mm	4 mm																	
0.33-0.82 mm <sup>2</sup>	1.34 mm	4 mm																	
0.13 ... 0.33	09 67 000 5576	09 67 000 5476																	
0.25 ... 0.52	09 67 000 8576	09 67 000 8476																	


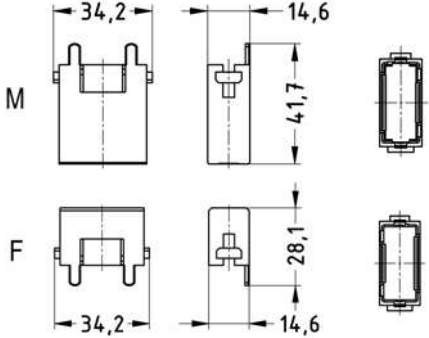

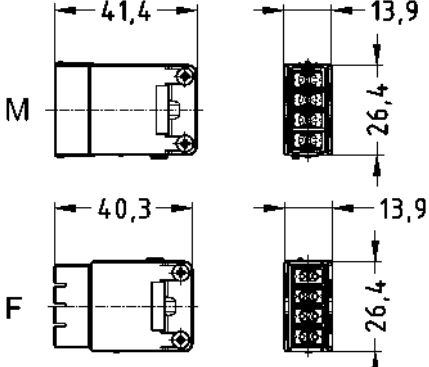

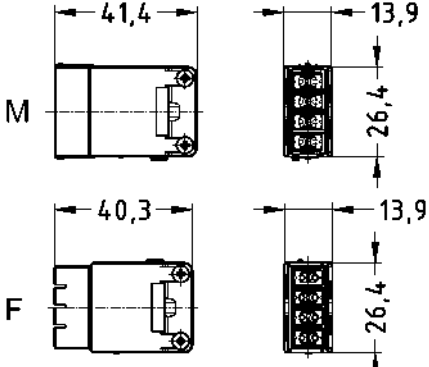
Modular


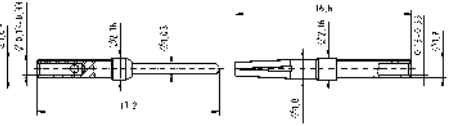
Number of contacts

# 8

5 A 50 V 0.8 kV 3  
+ shielding

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han-Modular®, Adapter module, Han® Gigabit module, Han® Shielded module, Han® Megabit module</p> 		09 14 001 3011	09 14 001 3111	
<p>Han® Gigabit insert, Crimp termination, Cat. 7<sub>A</sub></p>  <p>Please order crimp contacts separately. Please order adapter module separately.</p>	0.09 ... 0.52	09 14 008 3031	09 14 008 3131	 <p>Cable outer diameter ≤ 14 mm</p>
<p>Han® Gigabit insert, Crimp termination, Cat. 7<sub>A</sub></p>  <p>With additional shield connection to the hinged frame Please order crimp contacts separately. Please order adapter module separately.</p>	0.09 ... 0.52	09 14 008 3032	09 14 008 3132	 <p>Cable outer diameter ≤ 14 mm</p>

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
D-Sub, Crimp contact, Cat. 7 <sub>A</sub> 	0.13 ... 0.33	09 93 000 5576	09 93 000 5476	

Modular

## Features

- Shielding bus separate from housing potential
- Suitable for the transmission of sensitive signals (e.g. bus signals)

## Technical characteristics

Number of contacts	20
Additional contacts	+ shielding
Rated current	4 A
Rated voltage	32 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 10 \text{ m}\Omega$
Contact resistance, shielding	$\leq 100 \text{ m}\Omega$
Limiting temperature	-40 ... +85 °C
Mating cycles	$\geq 500$
Material (insert)	Liquid crystal polymer (LCP), Polycarbonate (PC)
Material (shielding)	Zinc die-cast, nickel-plated
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Specifications and approvals


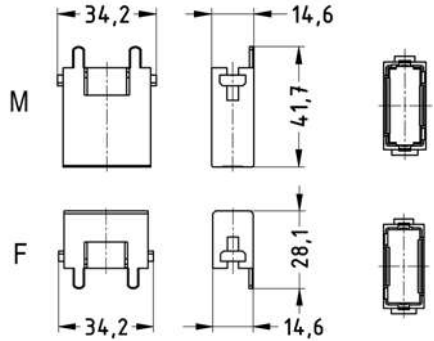

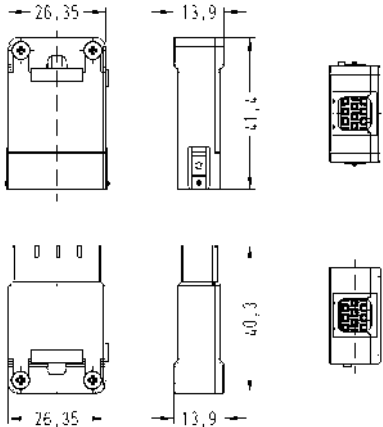

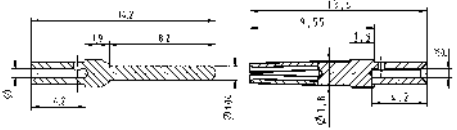
EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
DNV GL

Number of contacts

# 20

4 A 32 V 0.8 kV 3  
+ shielding

Modu-  
lar

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)															
		Male	Female																
Han-Modular®, Adapter module, Han® Gigabit module, Han® Shielded module, Han® Megabit module 		09 14 001 3011	09 14 001 3111																
Han® Shielded Module insert, Crimp termination  Please order crimp contacts separately.	0.09 ... 0.52	09 14 020 3013	09 14 020 3113																
D-Sub, Standard, Crimp contact 	0.09 ... 0.25 0.13 ... 0.33 0.25 ... 0.52	09 67 000 7576 09 67 000 5576 09 67 000 8576	09 67 000 7476 09 67 000 5476 09 67 000 8476	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>∅</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.09-0.25 mm<sup>2</sup></td> <td>0.64 mm</td> <td>4 mm</td> </tr> <tr> <td>0.13-0.33 mm<sup>2</sup></td> <td>0.88 mm</td> <td>4 mm</td> </tr> <tr> <td>0.25-0.52 mm<sup>2</sup></td> <td>1.13 mm</td> <td>4 mm</td> </tr> <tr> <td>0.33-0.82 mm<sup>2</sup></td> <td>1.34 mm</td> <td>4 mm</td> </tr> </tbody> </table> <p>for stranded wire according IEC 60228 Class 5</p>	Conductor cross-section	∅	Stripping length	0.09-0.25 mm <sup>2</sup>	0.64 mm	4 mm	0.13-0.33 mm <sup>2</sup>	0.88 mm	4 mm	0.25-0.52 mm <sup>2</sup>	1.13 mm	4 mm	0.33-0.82 mm <sup>2</sup>	1.34 mm	4 mm
Conductor cross-section	∅	Stripping length																	
0.09-0.25 mm <sup>2</sup>	0.64 mm	4 mm																	
0.13-0.33 mm <sup>2</sup>	0.88 mm	4 mm																	
0.25-0.52 mm <sup>2</sup>	1.13 mm	4 mm																	
0.33-0.82 mm <sup>2</sup>	1.34 mm	4 mm																	

## Features

- Transmission of shielding separately from the hood's ground
- Suitable for the transmission of sensitive signals (e.g. bus signals)
- Higher density of crimping contacts

## Technical characteristics

Number of contacts	27
Additional contacts	+ shielding
Rated current	2 A
Rated voltage	16 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance, shielding	≤100 mΩ
Limiting temperature	-40 ... +85 °C
Mating cycles	≥500
Material (insert)	Liquid crystal polymer (LCP), Polycarbonate (PC)
Material (shielding)	Zinc die-cast, nickel-plated
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
DNV GL


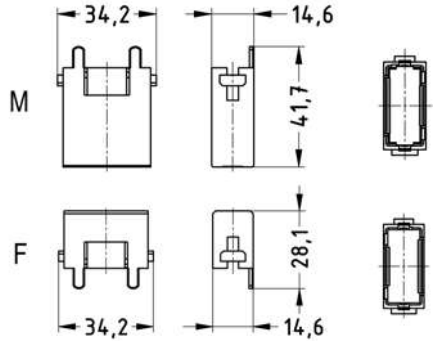

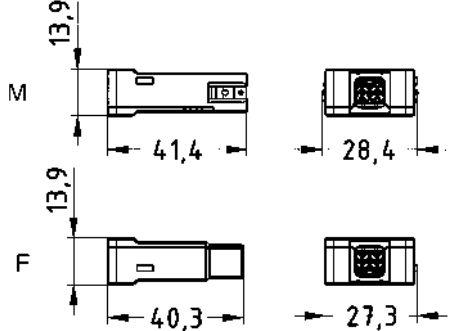

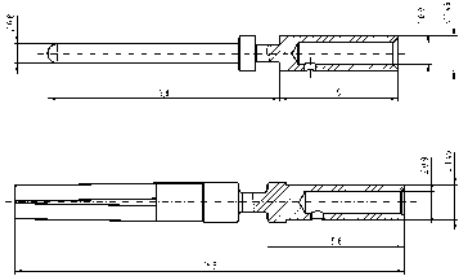


Number of contacts

# 27

2 A 16 V 0.8 kV 3  
+ shielding

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han-Modular®, Adapter module, Han® Gigabit module, Han® Shielded module, Han® Megabit module 		09 14 001 3011	09 14 001 3111	
Han-Modular®, Han® High density shielded module, Crimp termination  <p>Please order crimp contacts separately.</p>	0.13 ... 0.33	09 14 027 3013	09 14 027 3113	
Circular connectors M12, Crimp contact, Contact surface: Gold plated 	0.13 ... 0.33	21 01 100 9020	21 01 100 9025	

Modu-  
lar

## Features

- Shielding bus separate from housing potential
- Usable for Megabit Ethernet cat. 5e
- Suitable for Han® B, Han® M, Han® EMC and Han® HPR hoods/housings, high construction

## Technical characteristics

Number of contacts	8
Additional contacts	+ shielding
Rated current	10 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤3 mΩ
Contact resistance, shielding	≤100 mΩ
Limiting temperature	-40 ... +85 °C
Mating cycles	≥500
Transmission characteristics	Cat. 5, Class D up to 100 MHz
Data rate	10 Mbit/s, 100 Mbit/s
Material (insert)	Polycarbonate (PC)
Material (shielding)	Zinc die-cast, nickel-plated
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
DNV GL

## Details

Not suitable for hoods/housings low construction as well as Han-Modular® Eco, Han-Modular® Compact and Han-Modular® Twin.

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


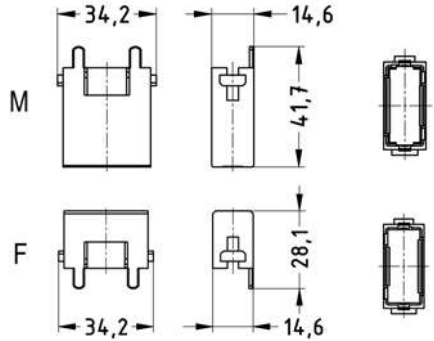

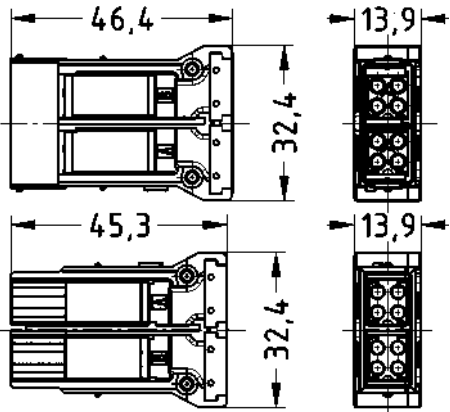

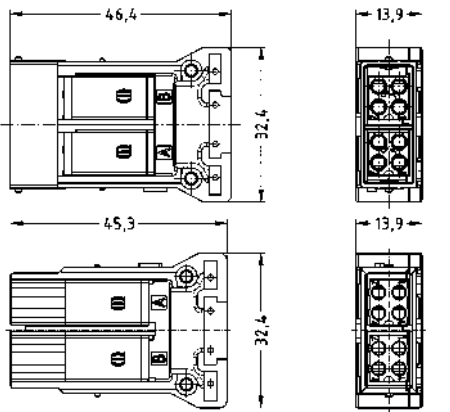
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts


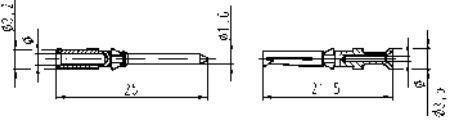
# 8

10 A 50 V 0.8 kV 3  
+ shielding

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han-Modular®, Adapter module, Han® Gigabit module, Han® Shielded module, Han® Megabit module</p> 		09 14 001 3011	09 14 001 3111	
<p>Han® Megabit insert, 2x 4 contacts, 2 cable entries, Crimp termination</p>  <p>Please order crimp contacts separately. Please order adapter module separately.</p>	0.14 ... 2.5	09 14 008 3016	09 14 008 3116	
<p>Han® Megabit insert, 2x 4 contacts, One entry, Crimp termination</p>  <p>Please order crimp contacts separately. Please order adapter module separately.</p>	0.14 ... 2.5	09 14 008 3021	09 14 008 3121	

Modular


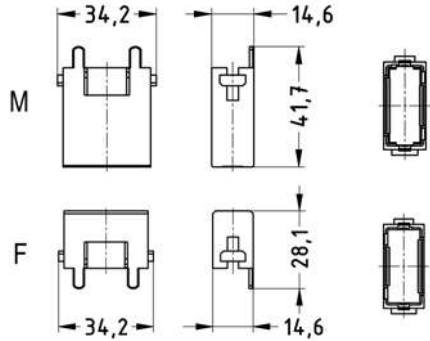

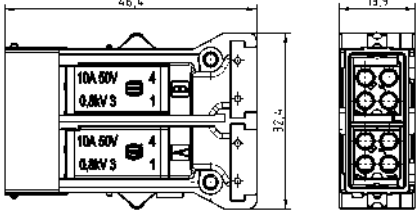
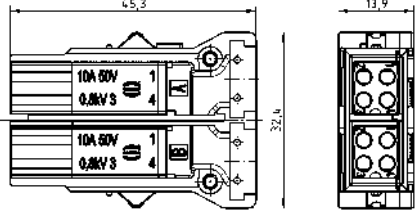

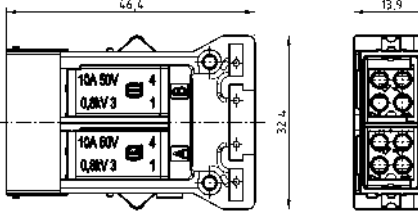
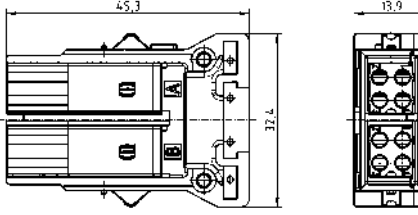
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																												
		Male	Female																													
Han D®, Crimp contact, Contact surface: Gold plated 	0.14 ... 0.37	09 15 000 6124	09 15 000 6224	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	Ø	Stripping length	0.14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm
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0.75	09 15 000 6125	09 15 000 6225																														
1	09 15 000 6122	09 15 000 6222																														
1.5	09 15 000 6121	09 15 000 6221																														
2.5	09 15 000 6126	09 15 000 6226																														

Number of contacts


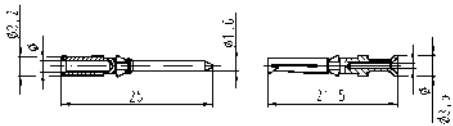
# 8

10 A 50 V 0.8 kV 3  
+ shielding

Modu-  
lar

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han-Modular®, Adapter module, Han® Gigabit module, Han® Shielded module, Han® Megabit module</p> 		09 14 001 3011	09 14 001 3111	
<p>Han® Megabit insert, 2x 4 contacts, 2 cable entries, Crimp termination</p>  <p>With additional shield connection to the hinged frame Please order crimp contacts separately. Please order adapter module separately.</p>	0.14 ... 2.5	09 14 008 3017	09 14 008 3117	 
<p>Han® Megabit insert, 2x 4 contacts, One entry, Crimp termination</p>  <p>With additional shield connection to the hinged frame Please order crimp contacts separately. Please order adapter module separately.</p>	0.14 ... 2.5	09 14 008 3022	09 14 008 3122	 

Modular


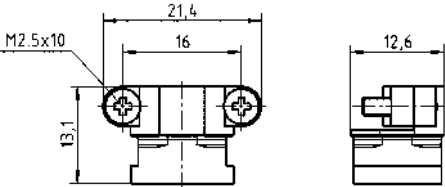

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																															
		Male	Female																																
Han D®, Crimp contact, Contact surface: Gold plated 	0.14 ... 0.37	09 15 000 6124	09 15 000 6224	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	Ø	Stripping length	0.14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm	0.5	09 15 000 6123	09 15 000 6223
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2.5	09 15 000 6126	09 15 000 6226																																	

## Technical characteristics

Material (accessories)      Zinc die-cast  
RoHS                              compliant, compliant with exemption

## Details

09 14 000 9983, 61 03 000 0143 and 61 03 000 0148 only for modules with one cable entry!


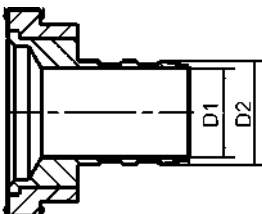

Identification	Cable diameter (mm)	Part number	Drawing (dimensions in mm)
Cable clamp 	6 ... 10	09 14 000 9983	
Cable clamp, D-Sub 1 ... 4 	5 ... 7 7 ... 10 9 ... 12 11 ... 14	61 03 000 0141 61 03 000 0044 61 03 000 0143 61 03 000 0148	

## Technical characteristics

RoHS compliant

## Details

HARTING offers to test and define the best crimp flange and ferrule combination for customer specific cables.

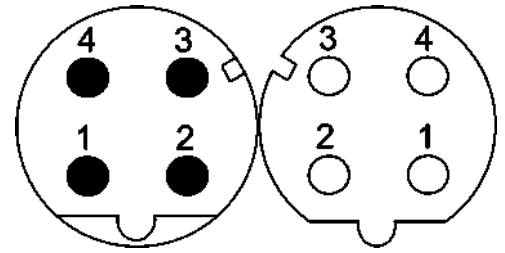
Identification	Inner diameter	Outer diameter	Part number	Drawing (dimensions in mm)
D-Sub, Crimp flange, D-Sub 1 ... 4  	3 mm	4 mm	61 03 000 0062	 <p>D1 = Inner diameter D2 = Outer diameter</p>
	3.5 mm	4.5 mm	61 03 000 0063	
	4 mm	5 mm	61 03 000 0064	
	4.5 mm	5.5 mm	61 03 000 0065	
	5 mm	6 mm	61 03 000 0066	
	5.5 mm	6.5 mm	61 03 000 0166	
	6 mm	7 mm	61 03 000 0067	
	6.5 mm	7.5 mm	61 03 000 0068	
	7 mm	8 mm	61 03 000 0069	
	7.5 mm	8.5 mm	61 03 000 0070	
	8 mm	9 mm	61 03 000 0071	
	8.5 mm	9.5 mm	61 03 000 0165	
	9 mm	10 mm	61 03 000 0072	
	D-Sub, Crimp ferrule  	5 mm	6 mm	
5.5 mm		6.5 mm	61 03 000 0046	
6 mm		7 mm	61 03 000 0047	
6.5 mm		7.5 mm	61 03 000 0048	
7 mm		8 mm	61 03 000 0049	
7.5 mm		8.5 mm	61 03 000 0050	
8 mm		9 mm	61 03 000 0051	
8.5 mm		9.5 mm	61 03 000 0052	
9 mm		10 mm	61 03 000 0053	
9.5 mm		10.5 mm	61 03 000 0054	
10 mm		11 mm	61 03 000 0055	
10.5 mm		11.5 mm	61 03 000 0056	
11 mm		12 mm	61 03 000 0057	
11.5 mm		12.5 mm	61 03 000 0058	
12 mm		13 mm	61 03 000 0142	
12.5 mm		13.5 mm	61 03 000 0059	
13 mm		14 mm	61 03 000 0127	
13.7 mm		15 mm	61 03 000 0060	
14 mm	15 mm	61 03 000 0061		



Number of contacts

# 4

4 A 32 V 0.8 kV 3  
+ shielding



Modu-  
lar

## Technical characteristics


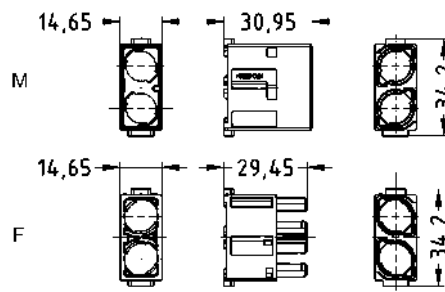

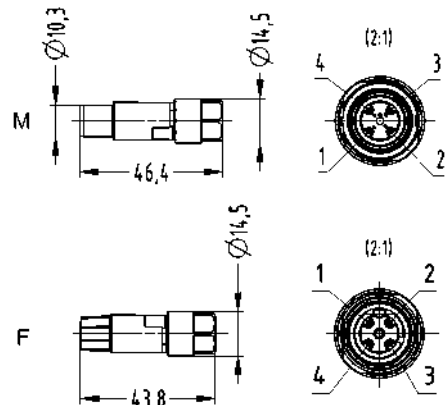
Number of contacts	4
Additional contacts	+ shielding
Rated current	4 A
Rated voltage	32 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Insulation resistance	$>10^8 \Omega$
Contact resistance	$\leq 10 \text{ m}\Omega$
Contact resistance, shielding	$\leq 100 \text{ m}\Omega$
Limiting temperature	-40 ... +85 °C
Mating cycles	$\geq 500$
Wire outer diameter	$\leq 2.3 \text{ mm}$
Transmission characteristics	Cat. 5, Class D up to 100 MHz

## Technical characteristics


Material (insert)	Liquid crystal polymer (LCP), Polycarbonate (PC)
Material (shielding)	Copper alloy, nickel plated
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Specifications and approvals

EN 60664-1  
IEC 61984

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han-Modular®, Han® M12 module  		09 14 002 3061	09 14 002 3161	
Han-Modular®, D-coding, Crimp termination   Please order crimp contacts separately.	0.13 ... 0.82	09 14 881 1405	09 14 881 2405	 Cable diameter 5.7 ... 8.8 mm

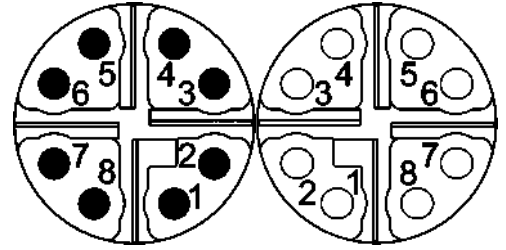
Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)															
		Male	Female																
D-Sub, Standard, Crimp contact  	0.13 ... 0.33	09 67 000 5576	09 67 000 5476	<table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>∅</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.09-0.25 mm<sup>2</sup></td> <td>0.64 mm</td> <td>4 mm</td> </tr> <tr> <td>0.13-0.33 mm<sup>2</sup></td> <td>0.88 mm</td> <td>4 mm</td> </tr> <tr> <td>0.25-0.52 mm<sup>2</sup></td> <td>1.13 mm</td> <td>4 mm</td> </tr> <tr> <td>0.33-0.82 mm<sup>2</sup></td> <td>1.34 mm</td> <td>4 mm</td> </tr> </tbody> </table> <p>for stranded wire according IEC 60228 Class 5</p>	Conductor cross-section	∅	Stripping length	0.09-0.25 mm <sup>2</sup>	0.64 mm	4 mm	0.13-0.33 mm <sup>2</sup>	0.88 mm	4 mm	0.25-0.52 mm <sup>2</sup>	1.13 mm	4 mm	0.33-0.82 mm <sup>2</sup>	1.34 mm	4 mm
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0.25 ... 0.52	09 67 000 8576	09 67 000 8476																	
0.33 ... 0.82	09 67 000 3576	09 67 000 3476																	

Number of contacts

# 8

0.5 A 32 V 0.8 kV 3  
+ shielding



Modu-  
lar

## Technical characteristics


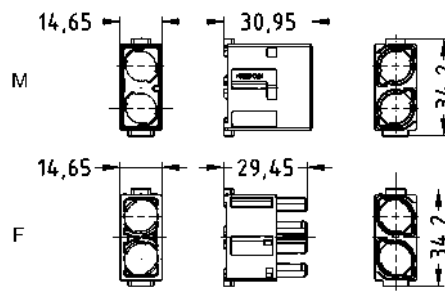

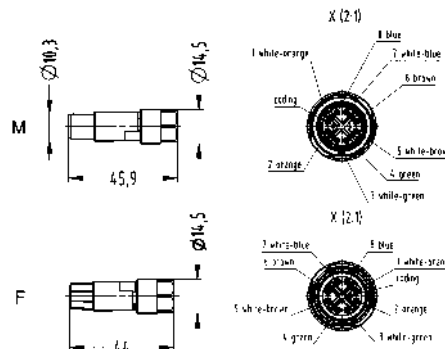
Number of contacts	8
Additional contacts	+ shielding
Rated current	0.5 A
Rated voltage	32 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Insulation resistance	>10 <sup>8</sup> Ω
Contact resistance	≤10 mΩ
Contact resistance, shielding	≤100 mΩ
Limiting temperature	-40 ... +85 °C
Mating cycles	≥500
Wire outer diameter	≤1.4 mm
Transmission characteristics	Cat. 6A, Class E <sub>A</sub> up to 500 MHz

## Technical characteristics


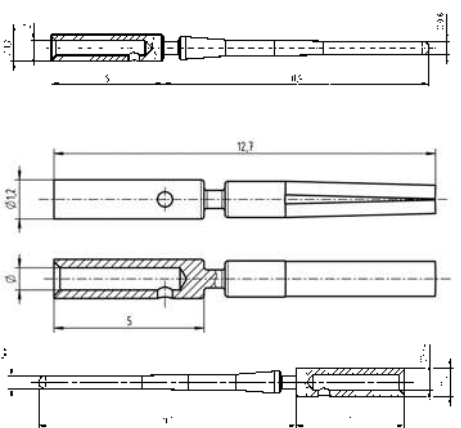
Material (insert)	Liquid crystal polymer (LCP), Polycarbonate (PC)
Material (shielding)	Copper alloy, nickel plated
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Specifications and approvals

EN 60664-1  
IEC 61984

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han-Modular®, Han® M12 module  		09 14 002 3061	09 14 002 3161	
Han-Modular®, X-coding, Crimp termination   Please order crimp contacts separately.	0.08 ... 0.25	09 14 881 1805	09 14 881 2805	 <p>Cable diameter 5.7 ... 8.8 mm</p>

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
har-speed, Crimp contact, Contact surface: Gold plated 	0.08 ... 0.22 0.13 ... 0.25	21 01 100 9014 21 01 100 9019	21 01 100 9023 21 01 100 9021	

## Features

- Shielding bus separate from housing potential
- Suitable for the transmission of sensitive signals (e.g. bus signals)
- The four pole Han® Quintax contact is suitable for Ethernet cat. 5 and PROFIBUS when diagonally wiring of the data pairs.

## Technical characteristics

Number of contacts	4
Additional contacts	+ shielding
Rated current	10 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤3 mΩ
Contact resistance, shielding	≤100 mΩ
Limiting temperature	-40 ... +85 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Material (shielding)	Zinc die-cast, nickel-plated
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Metal
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption, compliant

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
DNV GL

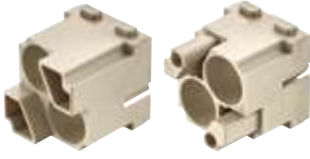
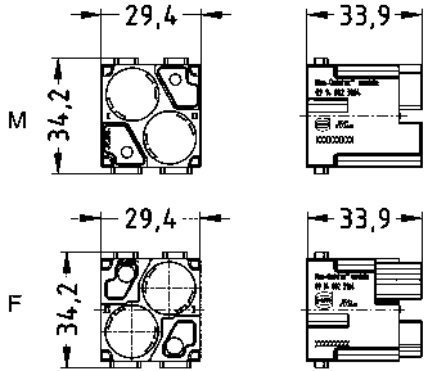

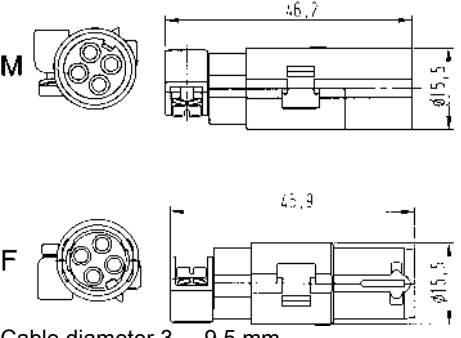

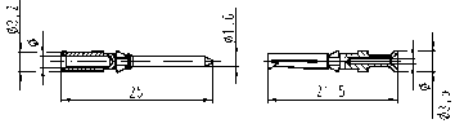
## Details

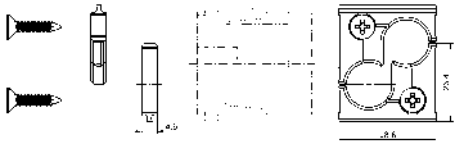
**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																												
		Male	Female																													
Han-Modular®, Han-Quintax® module, Crimp termination 		09 14 002 3004	09 14 002 3104																													
Han-Quintax®, for Han D® crimp contacts  Please order crimp contacts separately.	0.14 ... 2.5	09 15 004 3013	09 15 004 3113	 <p>Cable diameter 3 ... 9.5 mm</p>																												
Han D®, Crimp contact, Contact surface: Gold plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 000 6124 09 15 000 6123 09 15 000 6125 09 15 000 6122 09 15 000 6121 09 15 000 6126	09 15 000 6224 09 15 000 6223 09 15 000 6225 09 15 000 6222 09 15 000 6221 09 15 000 6226																													
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Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han-Quintax <sup>®</sup> , Adapter, Metal		09 14 000 9915	09 14 000 9915	
Optional				

## Technical characteristics

Number of contacts	8
Additional contacts	+ shielding
Rated current	5 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 10 \text{ m}\Omega$
Contact resistance, shielding	$\leq 100 \text{ m}\Omega$
Limiting temperature	-40 ... +85 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Material (shielding)	Zinc die-cast, nickel-plated
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy

## Technical characteristics

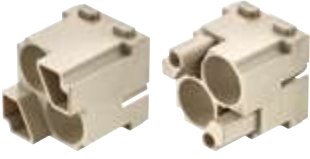
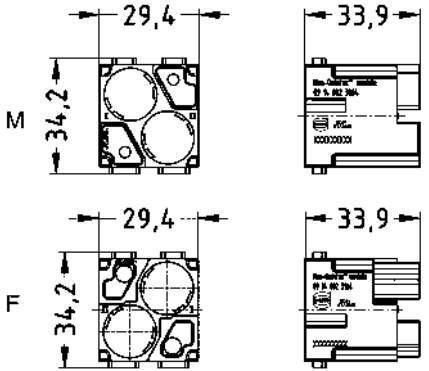

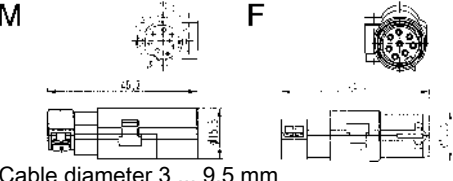

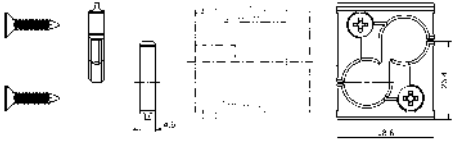

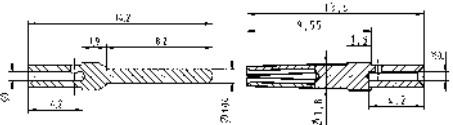
Material (accessories)	Metal
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL  
 UL 1977 ECBT2.E102079  
 CSA-C22.2 No. 182.3 ECBT8.E102079

Modu-  
lar



Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)															
		Male	Female																
Han-Modular®, Han-Quintax® module, Crimp termination 		09 14 002 3004	09 14 002 3104																
Han-Quintax® High Density, for Han® D-Sub crimp contacts  Please order crimp contacts separately.	0.09 ... 0.52	09 15 008 3013	09 15 008 3113	 <p>Cable diameter 3 ... 9.5 mm</p>															
Han-Quintax®, Adapter, Metal 		09 14 000 9915	09 14 000 9915																
Optional D-Sub, Standard, Crimp contact 	0.09 ... 0.25 0.13 ... 0.33 0.25 ... 0.52	09 67 000 7576 09 67 000 5576 09 67 000 8576	09 67 000 7476 09 67 000 5476 09 67 000 8476	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>∅</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.09-0.25 mm<sup>2</sup></td> <td>0.64 mm</td> <td>4 mm</td> </tr> <tr> <td>0.13-0.33 mm<sup>2</sup></td> <td>0.88 mm</td> <td>4 mm</td> </tr> <tr> <td>0.25-0.52 mm<sup>2</sup></td> <td>1.13 mm</td> <td>4 mm</td> </tr> <tr> <td>0.33-0.82 mm<sup>2</sup></td> <td>1.34 mm</td> <td>4 mm</td> </tr> </tbody> </table> <p>for stranded wire according IEC 60228 Class 5</p>	Conductor cross-section	∅	Stripping length	0.09-0.25 mm <sup>2</sup>	0.64 mm	4 mm	0.13-0.33 mm <sup>2</sup>	0.88 mm	4 mm	0.25-0.52 mm <sup>2</sup>	1.13 mm	4 mm	0.33-0.82 mm <sup>2</sup>	1.34 mm	4 mm
Conductor cross-section	∅	Stripping length																	
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0.25-0.52 mm <sup>2</sup>	1.13 mm	4 mm																	
0.33-0.82 mm <sup>2</sup>	1.34 mm	4 mm																	

## Technical characteristics

Number of contacts	1
Additional contacts	+ shielding
Rated current	10 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 3 \text{ m}\Omega$
Contact resistance, shielding	$\leq 100 \text{ m}\Omega$
Impedance	75 $\Omega$
Limiting temperature	-40 ... +85 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Material (shielding)	Zinc die-cast, nickel-plated
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0

## Technical characteristics

RoHS compliant, compliant with exemption

## Specifications and approvals

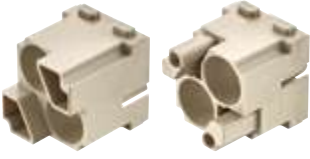
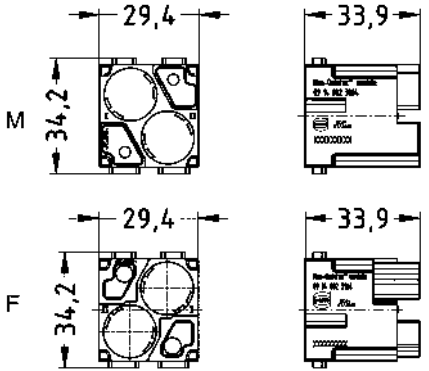

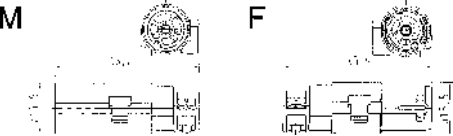
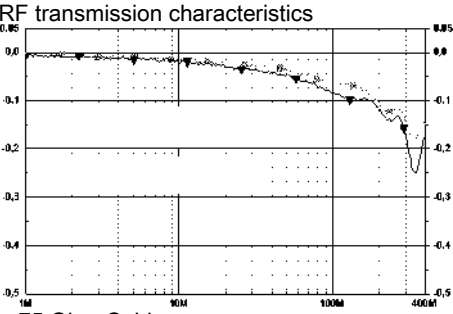
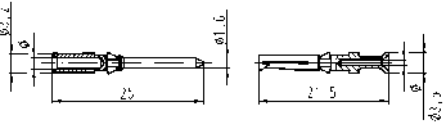

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
DNV GL

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																												
		Male	Female																													
Han-Modular®, Han-Quintax® module, Crimp termination 		09 14 002 3004	09 14 002 3104																													
Han® D Coax, Crimp termination, for Han D® crimp contacts  Please order crimp contacts separately.	0.14 ... 2.5	09 15 001 3013	09 15 001 3113	 RF transmission characteristics  																												
Han D®, Crimp contact, Contact surface: Gold plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 000 6124 09 15 000 6123 09 15 000 6125 09 15 000 6122 09 15 000 6121 09 15 000 6126	09 15 000 6224 09 15 000 6223 09 15 000 6225 09 15 000 6222 09 15 000 6221 09 15 000 6226	<table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	ø	Stripping length	0.14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm
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2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm																													

## Technical characteristics

Number of contacts	1
Additional contacts	+ shielding
Rated current	16 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤1 mΩ
Contact resistance, shielding	≤100 mΩ
Impedance	50 Ω
Limiting temperature	-40 ... +85 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Material (shielding)	Zinc die-cast, nickel-plated
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0

## Technical characteristics

RoHS compliant, compliant with exemption

## Specifications and approvals

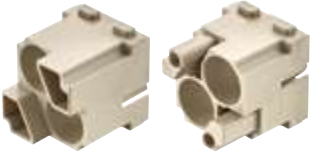
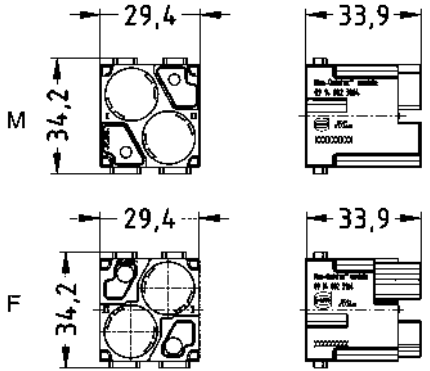

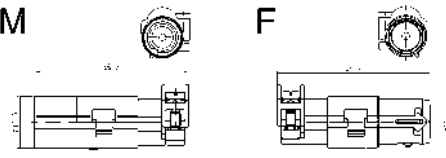

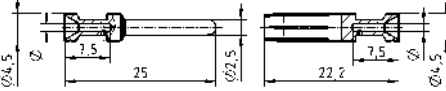
EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
DNV GL

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han-Modular®, Han-Quintax® module, Crimp termination 		09 14 002 3004	09 14 002 3104	
Han® E Coax, Crimp termination, for Han E® crimp contacts  Please order crimp contacts separately.	0.14 ... 4	09 15 001 3023	09 15 001 3123	
Han E®, Crimp contact, Contact surface: Gold plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5 4	09 33 000 6117 09 33 000 6122 09 33 000 6115 09 33 000 6118 09 33 000 6116 09 33 000 6123 09 33 000 6119	09 33 000 6217 09 33 000 6222 09 33 000 6215 09 33 000 6218 09 33 000 6216 09 33 000 6223 09 33 000 6221	

Han E® Coax with RG 213 cable (2.5 mm <sup>2</sup> )	200 MHz	500 MHz	1.0 GHz	1.2 GHz	1.5 GHz	2.0 GHz	2.5 GHz
Return loss [db]	23.8	21.1	>18.7	>17.7	>16.4	>14.1	>12.0
Attenuation [db]	0.07	0.11	0.17	0.2	<0.23	<0.53	<2.0

Conductor cross-section	Identification
0.14-0.37 mm <sup>2</sup> AWG 26-22	no groove
0.5 mm <sup>2</sup> AWG 20	no groove
0.75 mm <sup>2</sup> AWG 18	1 groove*
1 mm <sup>2</sup> AWG 18	1 groove
1.5 mm <sup>2</sup> AWG 16	2 groove
2.5 mm <sup>2</sup> AWG 14	3 groove
3 mm <sup>2</sup> AWG 12	wide groove
4 mm <sup>2</sup> AWG 12	no groove

\* on the back crimp collar

Stripping length 7.5 mm

Number of contacts

# 4

1.5 A 50 V

Modular

## Features

- Suitable for FOC and coaxial contacts acc. to EN 41626

## Technical characteristics

Number of contacts	4
Rated current	1.5 A
Rated voltage	50 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 10 \text{ m}\Omega$
Impedance	50 $\Omega$ , 75 $\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
DNV GL

## Details

ATTENTION when using coaxial contacts:

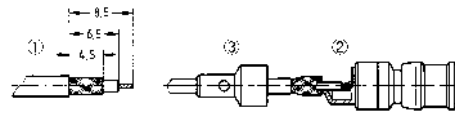
Male module 09 14 004 4501 with contacts 09 14 000 62xx or 09 69 28x 5xxx

Female module 09 14 004 4513 with contacts 09 14 000 61xx or 09 69 18x 5xxx


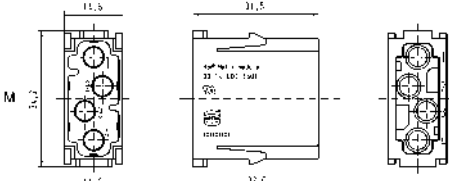
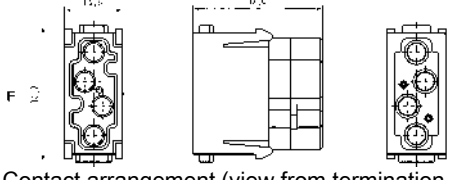
When removing the contacts, the two-piece module can be opened using a 7mm screwdriver. This destroys the module.

ATTENTION! Guide pins and bushes are prescribed (see chapter Han 80).

### Assembly instructions for coaxial contact



- ① Stripping length
- ② Solder termination (during soldering max. +300 °C for 2 s)
- ③ Crimp ferrule

Identification	Part number		Drawing (dimensions in mm)		
	Male	Female	M	F	
Han-Modular®, Han® Multi module    Please order contacts separately.	09 14 004 4501	09 14 004 4512			Contact arrangement (view from termination side)

Identification	Part number		Drawing (dimensions in mm)																																																					
	Male	Female																																																						
DIN 41626, Coaxial contact, Solder/crimp termination, for cables RG 174 U, 188 AU, 316 U, 50 Ohm,  Contact surface: Gold plated	09 14 000 6211	09 14 000 6111																																																						
DIN 41626, Coaxial contact, Solder/crimp termination, for cables RG 179 BU, 187 AU, 75 Ohm,  Contact surface: Gold plated	09 14 000 6221	09 14 000 6121	 <table border="1"> <thead> <tr> <th rowspan="2">Wires</th> <th>Shell</th> <th>Internal wire</th> <th colspan="3">Dämpfung db/100 m bei</th> </tr> <tr> <th>∅ mm</th> <th>∅ mm</th> <th>100MHz</th> <th>200MHz</th> <th>800MHz</th> </tr> </thead> <tbody> <tr> <td>50 Ω</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>RG 174 / U</td> <td>2.5</td> <td>0.48</td> <td></td> <td></td> <td>84</td> </tr> <tr> <td>RG 188 A / U</td> <td>2.6</td> <td>0.54</td> <td>29</td> <td>40</td> <td></td> </tr> <tr> <td>RG 316 / U</td> <td>2.5</td> <td>0.54</td> <td></td> <td>40</td> <td></td> </tr> <tr> <td>75 Ω</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>RG 179 B / U</td> <td>2.55</td> <td>0.3</td> <td></td> <td>41</td> <td></td> </tr> <tr> <td>RG 187 A / U</td> <td>2.7</td> <td>0.3</td> <td></td> <td>41</td> <td></td> </tr> </tbody> </table>	Wires	Shell	Internal wire	Dämpfung db/100 m bei			∅ mm	∅ mm	100MHz	200MHz	800MHz	50 Ω						RG 174 / U	2.5	0.48			84	RG 188 A / U	2.6	0.54	29	40		RG 316 / U	2.5	0.54		40		75 Ω						RG 179 B / U	2.55	0.3		41		RG 187 A / U	2.7	0.3		41	
Wires	Shell	Internal wire	Dämpfung db/100 m bei																																																					
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DIN 41626, FO contact, for 1 mm plastic fibre	20 10 001 4211	20 10 001 4221																																																						
DIN 41626, FO contact, for SI fibre (HCS®) 200/230 µm	20 10 230 4211	20 10 230 4221																																																						
DIN 41626, FO contact, for GI fibre 50/125 µm, for ceramic ferrule 62.5/125 µm	20 10 125 4212	20 10 125 4222																																																						

Number of contacts

**4**

1.5 A 50 V

Modu-  
lar

## Features

- Suitable for FOC and coaxial contacts acc. to D-Sub

## Technical characteristics

Number of contacts	4
Rated current	1.5 A
Rated voltage	50 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 10 \text{ m}\Omega$
Impedance	50 $\Omega$ , 75 $\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (locking)	Copper alloy
Material (contacts)	Copper alloy, PBFE / PBTP / PI
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
DNV GL

## Details

ATTENTION when using coaxial contacts:


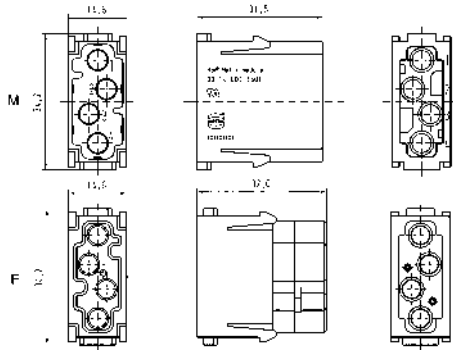
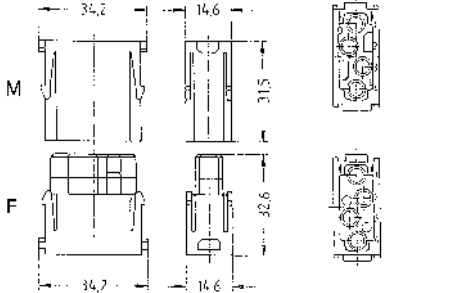

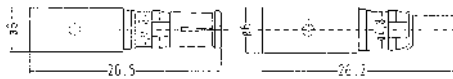


Male module 09 14 004 4501 with contacts 09 14 000 62xx or 09 69 28x 5xxx

Female module 09 14 004 4513 with contacts 09 14 000 61xx or 09 69 18x 5xxx





When removing the contacts, the two-piece module can be opened using a 7mm screwdriver. This destroys the module.

ATTENTION! Guide pins and bushes are prescribed (see chapter Han 80).



Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
<p>Han-Modular®, Han® Multi module</p>  <p>Please order contacts separately.</p>	09 14 004 4501	09 14 004 4513	 <p>Contact arrangement (view from termination side)</p>  <p>Contact arrangement (view from termination side)</p>
<p>D-Sub, Coaxial contact, Solder / solder termination, for cables RG 58, 50 Ohm,</p> <p>Contact surface: Gold plated</p> 	09 14 000 6215	09 14 000 6115	
<p>D-Sub, Mixed, Coaxial contact, Crimp/crimp termination, Straight, for cables RG 174 U, 188 AU, 316 U, 50 Ohm,</p> <p>Contact surface: Gold plated</p> 	09 69 282 5140	09 69 182 5140	
<p>D-Sub, Mixed, Coaxial contact, Crimp/crimp termination, Straight, for cables RG 179 BU, 187 AU, 75 Ohm,</p> <p>Contact surface: Gold plated</p> 	09 69 282 5230	09 69 182 5230	

Modular

Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
<p>D-Sub, Mixed, Coaxial contact, Solder/crimp termination, Straight, for cables RG 174 U, 188 AU, 316 U, 50 Ohm,</p> <p>Contact surface: Gold plated</p> 	09 69 281 5140	09 69 181 5140	
<p>D-Sub, Mixed, Coaxial contact, Solder/crimp termination, Straight, for cables RG 178 BU, 196 AU, 404 U, 50 Ohm,</p> <p>Contact surface: Gold plated</p> 	09 69 281 5141	09 69 181 5141	
<p>D-Sub, Mixed, Coaxial contact, Solder/crimp termination, Straight, for cables RG 58 CU, 141 AU, 50 Ohm,</p> <p>Contact surface: Gold plated</p> 	09 69 281 5143	09 69 181 5143	
<p>D-Sub, Mixed, Coaxial contact, Solder/crimp termination, Straight, for cables RG 179 BU, 187 AU, 75 Ohm,</p> <p>Contact surface: Gold plated</p> 	09 69 281 5230	09 69 181 5230	

Number of contacts

# 12

1.5 A 50 V

Modu-  
lar

## Features

- Suitable for FOC and coaxial contacts acc. to EN 41626

## Technical characteristics

Number of contacts	12
Rated current	1.5 A
Rated voltage	50 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 10 \text{ m}\Omega$
Impedance	50 $\Omega$ , 75 $\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
DNV GL

## Details

ATTENTION! Guide pins and bushes are prescribed (see chapter Han 80).

ATTENTION when using coaxial contacts:

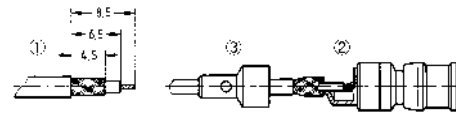
Male module 09 14 004 4501 with contacts 09 14 000 62xx

Female module 09 14 004 4512 with contacts 09 14 000 61xx


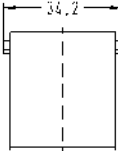
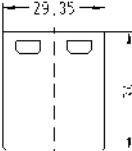
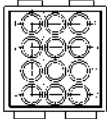
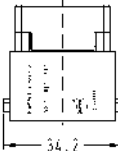
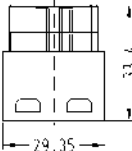
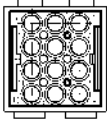
Due to the closed entry design of female insert the upper part has to be removed by screw driver before extracting the contacts.

### Assembly instructions

for coaxial contact



- ① Stripping length
- ② Solder termination (during soldering max. +300 °C for 2 s)
- ③ Crimp ferrule

Identification	Part number		Drawing (dimensions in mm)		
	Male	Female			
Han-Modular®, Han® Multi module, acc. to DIN 41626    Please order contacts separately.	09 14 012 4501	09 14 012 4512			
					

Contact arrangement (view from termination side)

Modular

Identification	Part number		Drawing (dimensions in mm)	
	Male	Female		
DIN 41626, Coaxial contact, Solder/crimp termination, for cables RG 174 U, 188 AU, 316 U, 50 Ohm,  Contact surface: Gold plated	09 14 000 6211	09 14 000 6111		
DIN 41626, Coaxial contact, Solder/crimp termination, for cables RG 179 BU, 187 AU, 75 Ohm,  Contact surface: Gold plated	09 14 000 6221	09 14 000 6121		
DIN 41626, FO contact, for 1 mm plastic fibre	20 10 001 4211	20 10 001 4221		
DIN 41626, FO contact, for SI fibre (HCS®) 200/230 µm	20 10 230 4211	20 10 230 4221		
DIN 41626, FO contact, for GI fibre 50/125 µm, for ceramic ferrule 62.5/125 µm	20 10 125 4212	20 10 125 4222		

Wires	Shell	Internal wire	Dämpfung db/100 m bei		
	mm	mm	100MHz	200MHz	800MHz
50 Ω					
RG 174 / U	2.5	0.48			84
RG 188 A / U	2.6	0.54	29	40	
RG 316 / U	2.5	0.54		40	
75 Ω					
RG 179 B / U	2.55	0.3		41	
RG 187 A / U	2.7	0.3		41	

Number of contacts

# 3



Modular

## Features



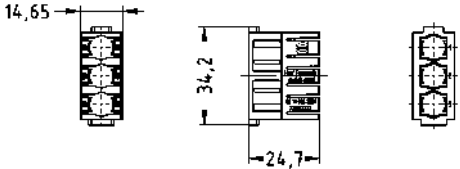
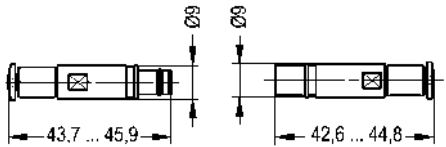
- for the transmission of clean and dry compressed air
- Female contacts with / without shut-off
- The Han® Pneumatic contacts without shut-off are suitable for the use inside a vacuum. (Limit: 100 mbar = 100 hPa ≈ approx 90% vacuum)

## Technical characteristics

Number of contacts	3
Limiting temperature	-40 ... +85 °C, -20 ... +85 °C
Tube outer diameter	3 mm, 4 mm, 6 mm
Operating pressure	≤10 bar
Mating cycles	≥10000
Tube inner diameter	3 mm, 4 mm, 6 mm
Tube outer diameter	3 mm, 4 mm, 6 mm
Material (insert)	Polycarbonate (PC)
Colour (insert)	Blue
Material (seal)	NBR
Colour (seal)	Black
Material (contacts)	Brass
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Specifications and approvals

IEC 61984  
 EN 60664-1  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076

Identification	Part number		Drawing (dimensions in mm)	
	Male	Female		
Han-Modular®, Han® Pneumatic module  <p>Please order contacts separately.</p> <p>Pneumatic contact,                      Without shut-off,                      Straight,                      Tube outer diameter</p> 		09 14 003 3501   09 14 000 6353 09 14 000 6354 09 14 000 6356	09 14 003 3501   09 14 000 6453 09 14 000 6454 09 14 000 6456	 <p>Contact arrangement (view from mating side)</p> 

Modular

Identification		Part number		Drawing (dimensions in mm)
		Male	Female	
Pneumatic contact, Without shut-off, Angled, Tube outer diameter	3 mm	09 14 000 7353	09 14 000 7453	
	4 mm	09 14 000 7354	09 14 000 7454	
	6 mm	09 14 000 7356	09 14 000 7456	
Pneumatic contact, With shut-off, Straight, Tube outer diameter	3 mm		09 14 000 6463	
	4 mm		09 14 000 6464	
	6 mm		09 14 000 6466	
Pneumatic contact, With shut-off, Angled, Tube outer diameter	3 mm		09 14 000 7463	
	4 mm		09 14 000 7464	
	6 mm		09 14 000 7466	
Pneumatic contact, Without shut-off, Straight, Tube inner diameter	3 mm	09 14 000 6303	09 14 000 6403	
	4 mm	09 14 000 6304	09 14 000 6404	
	6 mm	09 14 000 6306	09 14 000 6406	
Pneumatic contact, With shut-off, Straight, Tube inner diameter	3 mm		09 14 000 6413	
	4 mm		09 14 000 6414	
	6 mm		09 14 000 6416	
O-ring rubber seal, for pneumatic contacts		09 14 000 9806		

## Features

- Suitable for HARTING SC contacts
- for GI-Fibre 50 - 62,5 / 125µm
- Insertion loss < 0.5 dB

## Technical characteristics

Number of contacts	4
Limiting temperature	-40 ... +85 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Specifications and approvals

UL 1977 ECBT2.E235076  
DNV GL

## Details

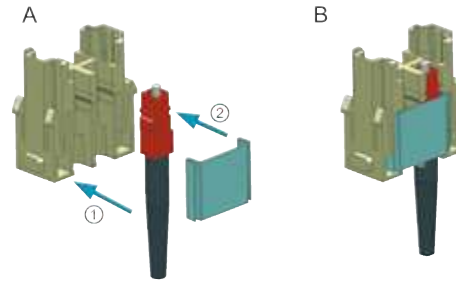
The male and female modules each use the same contacts.

Guide pins and bushes are recommended (see chapter Han 80).

## Details

### Assembly instructions

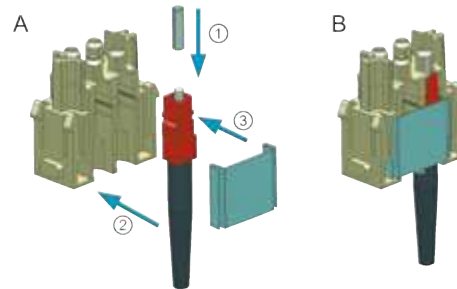
#### Male module



- A) Assemble the SC contact  
Push the SC contact from the side into the relevant insert ①  
Push the fixing plate from the side over the contacts ②  
B) SC contact fixed in the module

### Assembly instructions

#### Female module


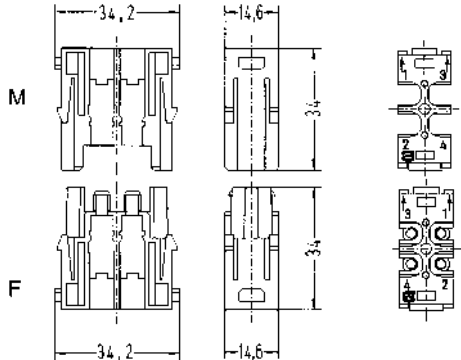

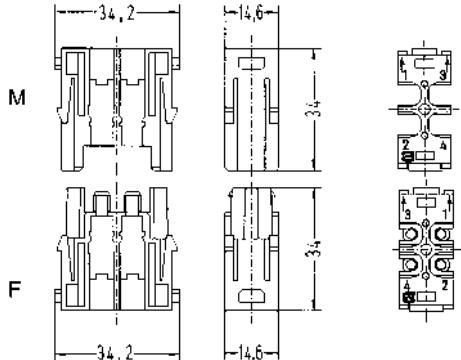


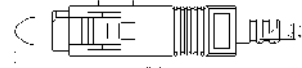


- A) Assemble the SC contact  
Push the centering ferrule (included in delivery) on the SC contact ①  
Push the SC contact from the side into the relevant insert ②  
Push the fixing plate from the side over the contacts ③  
B) SC contact fixed in the module

Number of contacts

# 4

Modular

Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
<p>Han-Modular®, Han® SC module</p>  <p>Please order contacts separately.</p>	09 14 004 4701	09 14 004 4712	 <p>Contact arrangement (view from termination side)</p>
<p>Han-Modular®, Han® SC module, with ceramic ferrule 62.5/125 µm</p>  <p>Please order contacts separately. Please order fixing plate separately.</p>		09 14 004 4711	 <p>Contact arrangement (view from termination side)</p>
<p>Han-Modular®, Han® SC module, with metal ferrule</p>  <p>Please order contacts separately.</p>		09 14 004 4713	
<p>SC contact, for 1 mm plastic fibre, Crimp termination</p> 	20 10 001 5211		



Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
SC contact, for 1 mm plastic fibre, Fast termination	20 10 001 5217		
SC contact, for singlemode fibre 9/125 µm	20 10 125 5220		
SC contact, for GI fibre 50/125 µm, for ceramic ferrule 62.5/125 µm	20 10 125 5211		
SC contact, for SI fibre (HCS®) 200/230 µm	20 10 230 5211		
Han-Modular®, Fixing plate, for SC module	09 14 000 9965	09 14 000 9965	

Modular

Number of contacts

# 6

Modular

## Features

- Suitable for HARTING LC contacts
- for GI-Fibre 50 - 62.5 / 125 µm and for singlemode fibre


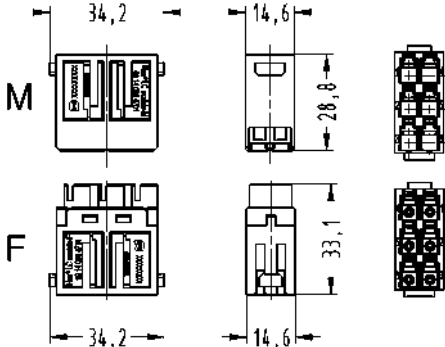
## Technical characteristics

Number of contacts	6
Limiting temperature	-40 ... +85 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Details

The male and female modules each use the same contacts.

ATTENTION! Guide pins and bushes are prescribed (see chapter Han 80).


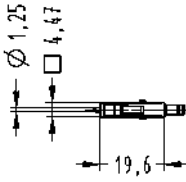



Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
Han-Modular®, Han® LC module  <p>Please order contacts separately.</p>	09 14 006 4701	09 14 006 4711	 <p>Contact arrangement (view from termination side)</p>

## Technical characteristics

Limiting temperature -40 ... +75 °C

## Technical characteristics

RoHS compliant with exemption, compliant

Identification	Part number Male	Drawing (dimensions in mm)
LC contact, Singlemode for cable diameter up to 2 mm 	20 10 125 8221	
LC contact, Singlemode for cable diameter up to 3 mm 	20 10 125 8220	
LC contact, Multimode for cable diameter up to 2 mm 	20 10 125 8212	
LC contact, Multimode for cable diameter up to 3 mm 	20 10 125 8211	

## Features

- Single module with standard shielded RJ45 plug and jack
- The RJ45 inserts are protected by a reliable plastic insulator
- Patch cables are assembled/removed without tools
- Auto-crossing
- Auto-negotiation
- Auto-polarity
- Store and Forward
- Fast Ethernet
- Full Gigabit Ethernet
- Non blocking
- Support of Jumbo-Frames (10 kBytes)
- Energy Efficient Ethernet acc. to IEEE 802.3az

## Technical characteristics

Total number of ports	4
Insulation resistance	>10 <sup>10</sup> Ω
Limiting temperature	-40 ... +125 °C
Operating temperature	-40 ... +70 °C
Storage temperature	-40 ... +85 °C
Relative humidity	30 ... 95 % Non-condensing
Mating cycles	≥500
Degree of protection acc. to IEC 60529	IP30, mated condition
Nominal voltage	24 V DC
Transmission characteristics	Cat. 5, Class D up to 100 MHz
Data rate	10 Mbit/s, 100 Mbit/s, 1 Gbit/s
Diagnostic display	Connection (Link), Data transfer (Act), Data transfer rate, Power connection
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 DNV GL  
 EN 55022 Radio disturbance characteristics  
 EN 61000-4-2 Electrostatic discharge (ESD)  
 EN 61000-4-3 Electromagnetic field  
 EN 61000-4-4 Rapid transients (burst)  
 EN 61000-4-5 Surge voltages  
 EN 61000-4-6 conducted disturbances  
 EN 61000-6-4 emission standard  
 IEC 60068-2-6 Vibration (sinusoidal)  
 IEC 60068-2-27 Shock  
 IEEE 802.3



Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
Han-Modular®, Han® RJ45 module, Single module	09 14 001 4623		
Han-Modular®, Han® RJ45 module, Adapter, for patch cable	09 14 000 9966		
Han-Modular®, Han-Smart®, Switch US4, IP30 mated condition		09 80 113 0400	

Number of contacts

# 7

Modular



## Features

- Module for identifying industrial components
- Programming via the CANopen communication protocol
- Automatically detects baud rate
- Node ID configuration using LSS, acc. to DS305
- Status and diagnostics display
- Default Node ID: 127


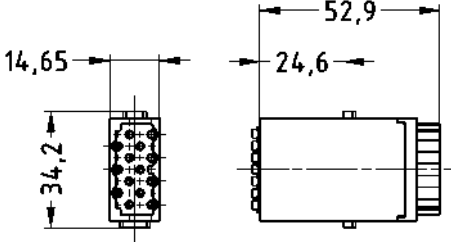

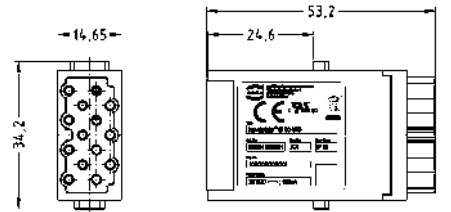
## Technical characteristics

Number of contacts	7
Operating temperature	-40 ... +70 °C
Storage temperature	-40 ... +70 °C
Mating cycles	≥500
Degree of protection acc. to IEC 60529	IP30
Nominal voltage	24 V DC
Power consumption	<5 W
Memory	10 MB Flash
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Polycarbonate (PC)
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Specifications and approvals

- IEC 60721-3-3
- EN 50102
- EN 61000-4-2 Electrostatic discharge (ESD)
- EN 61000-4-3 Electromagnetic field
- EN 61000-4-4 Rapid transients (burst)
- EN 61000-4-5 Surge voltages
- EN 61000-4-6 conducted disturbances

Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
Han-Modular®, Han-Smart®, ID CAN, Memory module / CPU, IP30 Contact surface: Gold plated	09 80 015 0100		

Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
<p>Han-Modular®, Han-Smart®, ID CAN, Network module, Cage-clamp termination, IP30</p> <p>Contact surface: Gold plated</p> 		09 80 115 0200	
<p>Han-Modular®, Update module, to update the male module</p> 		09 80 115 0201	

Modular

Number of contacts

# 7

Modular

## Features

- Module for identifying industrial components
- Profinet I/O communication protocol conformance class B
- SNMP enabled (V1, V2C)



## Technical characteristics

Number of contacts	7
Operating temperature	-40 ... +70 °C
Storage temperature	-40 ... +70 °C
Mating cycles	≥500
Degree of protection acc. to IEC 60529	IP20
Nominal voltage	24 V DC ±10 %
Power consumption	<2 W
Memory	32 KByte Flash
Write cycles	≥100000
Real-time class	RT acc. to IEC 61158
Diagnostic display	Connection (Link), Power connection
Material (insert)	Polycarbonate (PC), Liquid crystal polymer (LCP)
Colour (insert)	RAL 7032 (pebble grey), White
Material flammability class acc. to UL 94	V-0

## Specifications and approvals

- IEC 60721-3-3
- EN 50102
- EN 61000-4-2 Electrostatic discharge (ESD)
- EN 61000-4-3 Electromagnetic field
- EN 61000-4-4 Rapid transients (burst)
- EN 61000-4-5 Surge voltages
- EN 61000-4-6 conducted disturbances
- IEC 61158 PROFINET



Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
Han-Modular®, Han-Smart®, ID Profinet, Memory module / CPU, IP20 	09 80 615 0100		
GSD software file and operating instructions can be downloaded from the eCatalogue.			
Han-Modular®, Han-Smart®, ID Profinet, Power supply, Data interface with HARTING ix Industrial® (Typ A), IP20 		09 80 615 0200	
GSD software file and operating instructions can be downloaded from the eCatalogue.			



Number of contacts

# 5



Modular

## Features

- Surge protection for two pairs of balanced signals
- Protects symmetric signals interfaces with electrical isolation

## Technical characteristics

Number of contacts	5
Operating temperature	-40 ... +85 °C
Storage temperature	-40 ... +85 °C
Mating cycles	≥500
Degree of protection acc. to IEC 60529	IP20
Nominal current	0.5 A
Nominal voltage	24 V DC, 24 V AC
Material (insert)	Polyamide (PA)
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption


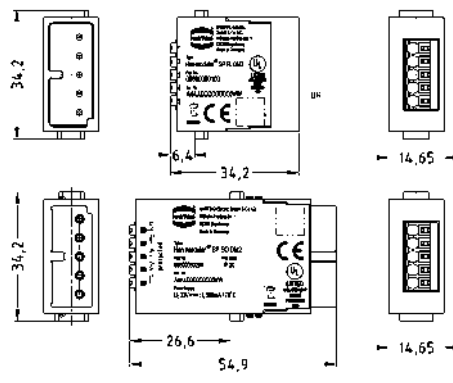
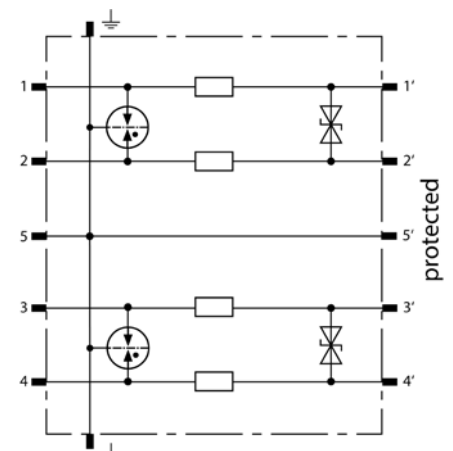
## Details

The surge protection module protects up to 2 pairs of balanced signal interfaces with electrical isolation against lightning strikes or overvoltage events.

Preferred field of application is the protection of analogue signal interfaces like for 0/4-20 mA or differential signals.

The equipotential bonding will be led via the earthed hinged frame of the Han-Modular® system.

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han-Modular®, Han-Smart®, Han-Smart® Surge protection module, Two channels, Differential mode without common reference potential, Push-in-spring-cage termination, IP20</p> 	0.25 ... 1.5	09 80 000 0100	09 80 003 0200	  <p>Circuit diagram</p>

Number of contacts

# 5



Modular

## Features

- Surge protection for four single lines
- Protects signals with common reference potential

## Technical characteristics

Number of contacts	5
Operating temperature	-40 ... +85 °C
Storage temperature	-40 ... +85 °C
Mating cycles	≥500
Degree of protection acc. to IEC 60529	IP20
Nominal current	0.5 A
Nominal voltage	24 V DC
Material (insert)	Polyamide (PA)
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption


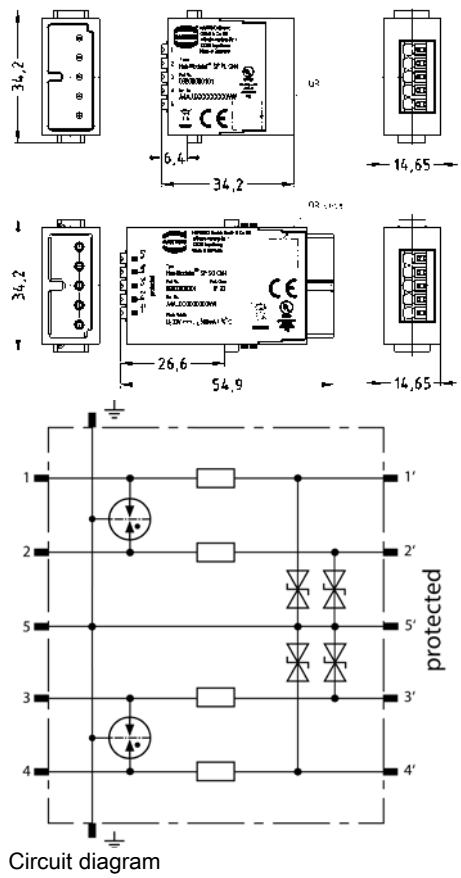
## Details

The surge protection module protects up to 4 single lines with common reference potential and unbalanced interfaces against lightning strikes or overvoltages.

Preferred field of application is the protection of digital signals up to 24 VDC with a max load of 0.5 A / line.

The equipotential bonding will be led via the earthed hinged frame of the Han-Modular® system.

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han-Modular®, Han-Smart®, Han-Smart® Surge protection module, Four channels, Common reference potential, Push-in-spring-cage termination, IP20</p> 	0.25 ... 1.5	09 80 000 0101	09 80 003 0201	 <p>Circuit diagram</p>

## Features

- Robust housing
- Compact design saves space
- Modular structure increases flexibility
- Simple and quick assembly
- Two-part hood

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Degree of protection acc. to IEC 60529	IP65, locked condition
Material (hood/housing)	Zinc die-cast
Surface (hood/housing)	Nickel plated
Material (seal)	NBR
Material (locking)	Stainless steel
Material (accessories)	Metal
RoHS	compliant

## Specifications and approvals

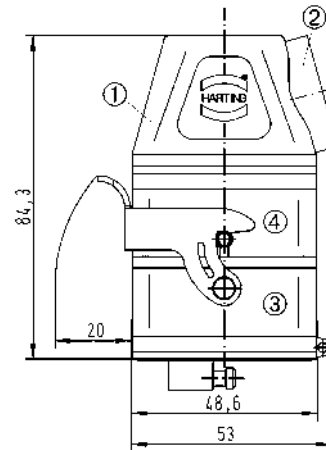
IEC 61984



## Details

Conductor cross-section PE 0.5 ... 10 mm<sup>2</sup>


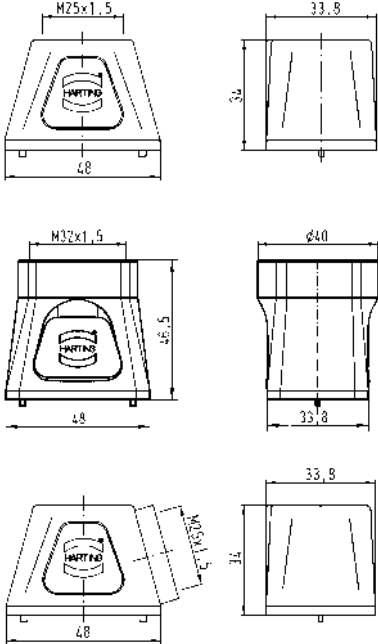

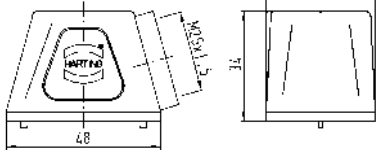

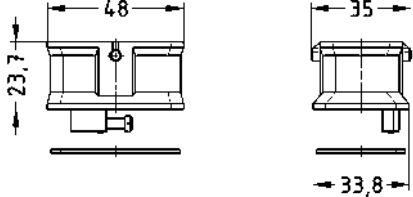

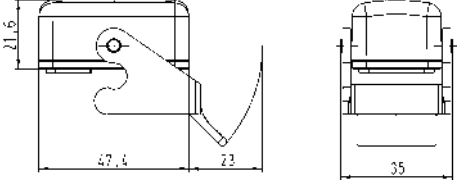
Conductor cross-section 10 mm<sup>2</sup> only with ferrule crimping tool 09 99 000 0374



- ① Hood with side entry
- ② Cable entry M25
- ③ Bulkhead mounted housing with locking lever
- ④ Carrier hood


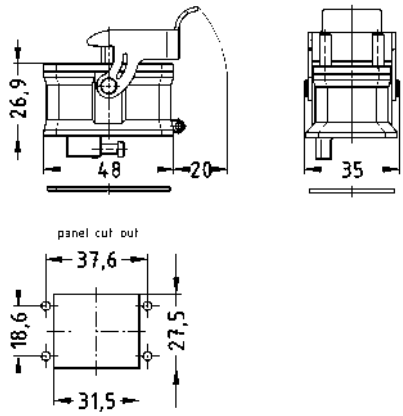

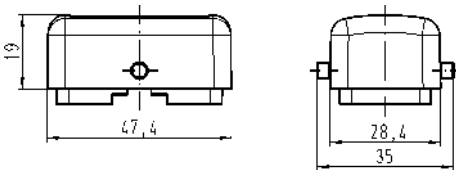

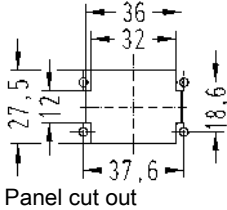
Single locking lever

Modular

Identification	Cable entry	Part number	Drawing (dimensions in mm)	
<p>Han-Modular® Compact, Hood, Top entry, IP65 locked condition</p> <p>Pack contents: 4 screws are included within the delivery</p> 	<p>1x M25 1x M32</p>	<p>19 14 001 0401 19 14 001 0402</p>		
<p>Han-Modular® Compact, Hood, Side entry, IP65 locked condition</p> <p>Pack contents: 4 screws are included within the delivery</p> 	<p>1x M25</p>	<p>19 14 001 0501</p>		
<p>Han-Modular® Compact, Carrier hood, IP65 locked condition</p> 		<p>09 14 001 0311</p>		
<p>Han-Modular® Compact, Protection cover, for carrier hoods, Thermoplastic, IP65 locked condition</p> 		<p>09 14 001 5402</p>		

Single locking lever

Modular

Identification	Part number	Drawing (dimensions in mm)
<p>Han-Modular® Compact, Bulkhead mounted housing, IP65 locked condition</p> 	<p>09 14 001 0301</p>	
<p>Han-Modular® Compact, Protection cover, for bulkhead mounted housings, Thermoplastic, IP65 locked condition</p> 	<p>09 14 001 5401</p>	
<p>Fixing bracket</p> 	<p>09 14 000 9947</p>	

Modular

## Technical characteristics

Material (accessories) Polycarbonate (PC)

## Technical characteristics

Colour (accessories) Red, Blue, Black, Yellow  
RoHS compliant

Identification	Part number	Drawing (dimensions in mm)
Coding element, Red	09 14 000 9971	
Coding element, Blue	09 14 000 9972	
Coding element, Black	09 14 000 9973	
Coding element, Yellow	09 14 000 9974	



## Features

- Robust housing
- Compact design saves space
- Modular structure increases flexibility
- Simple and quick assembly
- Two-part hood

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Degree of protection acc. to IEC 60529	IP65
Material (hood/housing)	Aluminium die-cast, Zinc die-cast
Surface (hood/housing)	Powder-coated
Colour (hood/housing)	RAL 7037 (dust grey)
Material (seal)	NBR
Material (locking)	Polycarbonate (PC), Stainless steel
Colour (locking)	RAL 7037 (dust grey)
Material (accessories)	Zinc die-cast
Material flammability class acc. to UL 94 (locking levers)	V-0
RoHS	compliant, compliant with exemption

## Specifications and approvals

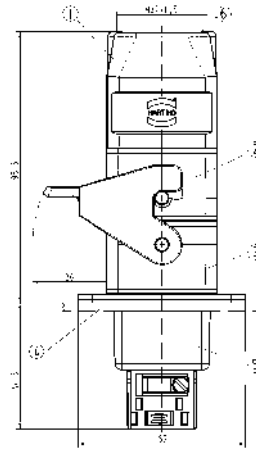
IEC 61984



## Details

Conductor cross-section PE 0.5 ... 10 mm<sup>2</sup>

Conductor cross-section 10 mm<sup>2</sup> only with ferrule crimping tool 09 99 000 0374




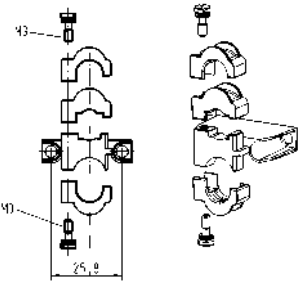
- ① Hood with top entry
- ② Carrier hood
- ③ Bulkhead mounted housing with locking lever
- ④ Switch board panel
- ⑤ Panel feed through housings
- ⑥ Cable entry

Single locking lever



Modular

Identification	Cable entry	Part number	Drawing (dimensions in mm)
Han-Modular® Twin, Hood, Top entry, IP65	1x M20 1x M25 1x M32	19 14 002 0400 19 14 002 0401 19 14 002 0402	
Han-Modular® Twin, Hood, Side entry, IP65	1x M25	19 14 002 0501	
Han-Modular® Twin, Carrier hood, IP65		09 14 002 0311	
Han-Modular® Twin, Angled housing, Zinc die-cast, IP65	1x M32	09 14 002 0950 19 14 002 0952	

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Shielded frame</p> 		<p>09 14 000 9924</p>	

Modular

Modular

Single locking lever



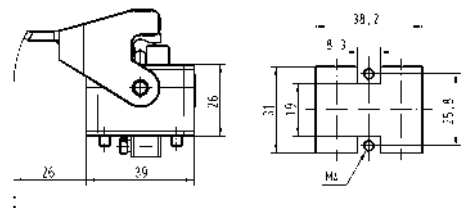
Identification

Part number

Drawing  
(dimensions in mm)

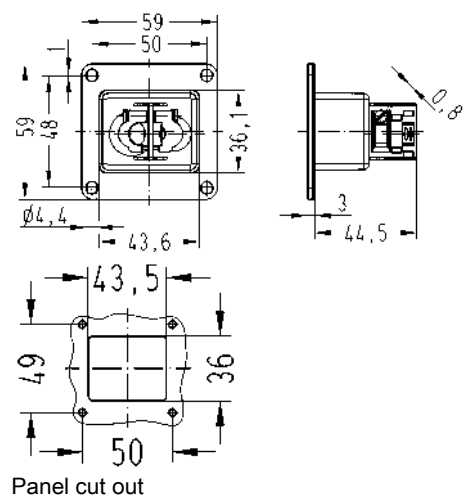
Han-Modular® Twin,  
Bulkhead mounted housing,  
Han-Easy Lock®,  
IP65

09 14 002 0301



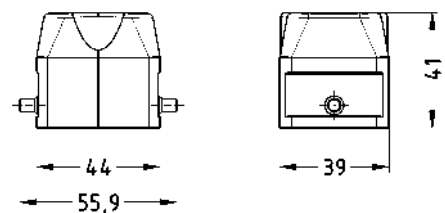
Han-Modular® Twin,  
Panel feed through housing,  
Zinc die-cast,  
IP65

09 14 000 9928



Han-Modular® Twin,  
Protection cover,  
for bulkhead mounted housings,  
Metal,  
IP65

09 14 002 5401



## Features

- Suitable for all Han-Modular® single modules
- The variant with PE connection uses pin 1 of the module as PE
- Slim, space saving construction type
- Low cost plastic hoods and housings

## Technical characteristics

Limiting temperature	-40 ... +85 °C
Mating cycles	≥500
Degree of protection acc. to IEC 60529	IP65, IP20
Material (hood/housing)	Polycarbonate (PC)
Colour (hood/housing)	RAL 7032 (pebble grey)
Material (seal)	NBR
Material (accessories)	Polycarbonate (PC)
Material flammability class acc. to UL 94	V-0
RoHS	compliant


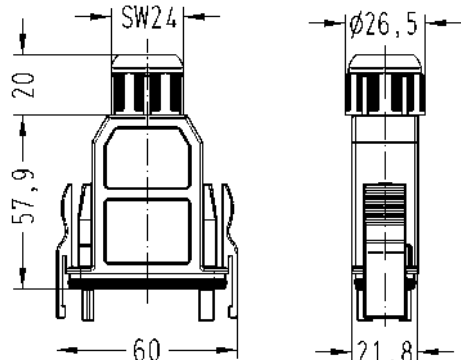

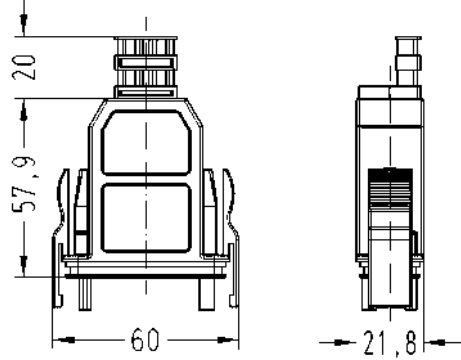

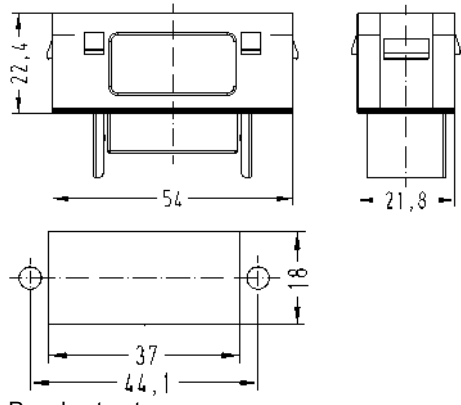
## Specifications and approvals


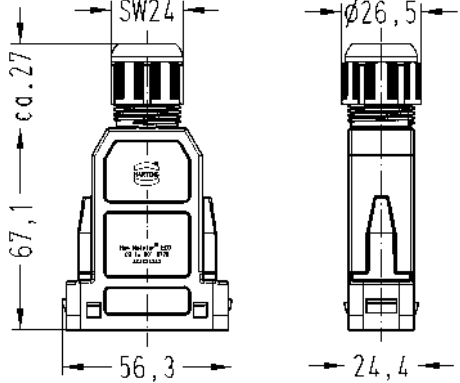

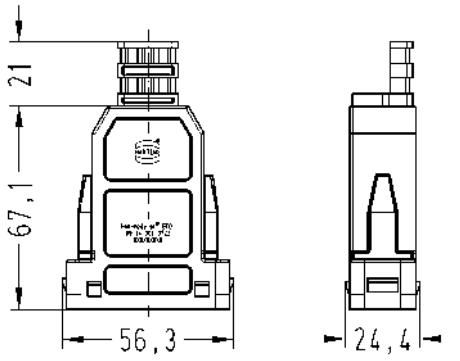

EN 60664-1  
IEC 61984



Snap-in latches


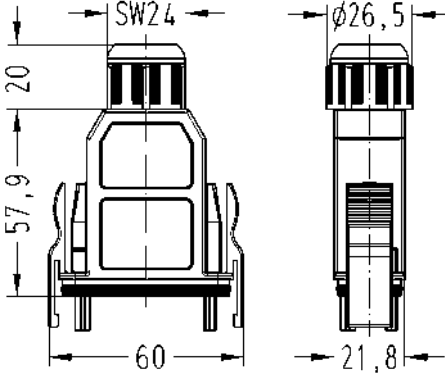

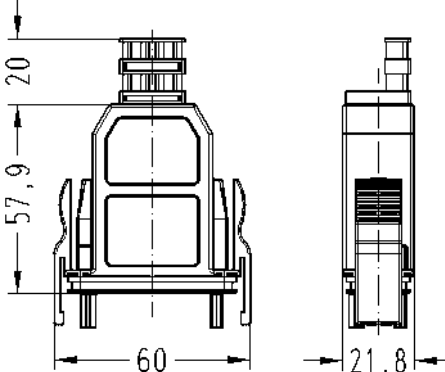

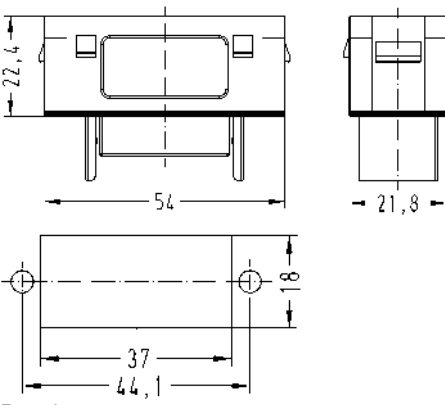
Modular

Identification	Cable entry	Cable diameter (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Modular® ECO, Hood, With integrated cable gland, Top entry, IP65, IP65</p> 	1x Integrated	6 ... 13	09 14 001 0420	 <p>Tightening torque Cable gland 3 Nm</p>
<p>Han-Modular® ECO, Hood, Top entry, IP20, IP20</p> 	1x	3 ... 14.5	09 14 001 0422	
<p>Han-Modular® ECO, Bulkhead mounted housing, IP65</p> 			09 14 001 0320	 <p>Panel cut out</p>


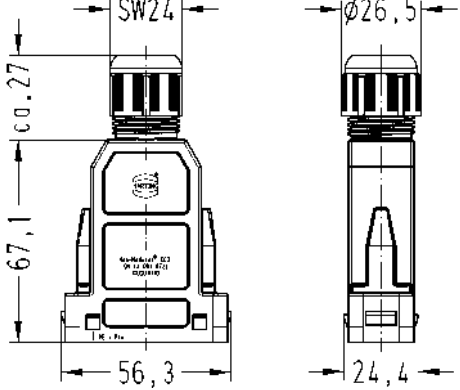

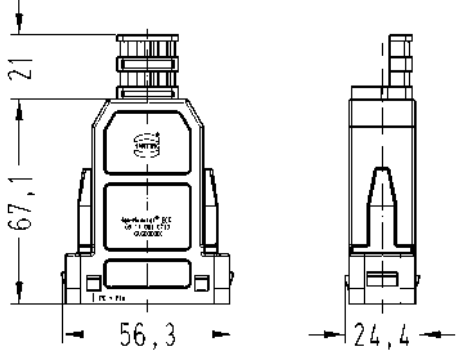

Identification	Cable entry	Cable diameter (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Modular® ECO, Cable to cable housing, With integrated cable gland, Top entry, IP65, IP65</p> 	<p>1x Integrated</p>	<p>6 ... 13</p>	<p>09 14 001 0720</p>	 <p>Tightening torque Cable gland 3 Nm</p>
<p>Han-Modular® ECO, Cable to cable housing, Top entry, IP20, IP20</p> 	<p>1x</p>	<p>3 ... 14.5</p>	<p>09 14 001 0722</p>	
<p>Han-Modular®, Coding element, Pack contents: 8 pieces per frame</p> 			<p>09 14 000 9929</p>	

Snap-in latches

Modular

Identification	Cable entry	Cable diameter (mm)	Part number	Drawing (dimensions in mm)
Han-Modular® ECO, Hood, With PE identification (pin 1 = PE), With integrated cable gland, Top entry, IP65, IP65 	1x Integrated	6 ... 13	09 14 001 0421	 <p>Tightening torque Cable gland 3 Nm</p>
Han-Modular® ECO, Hood, With PE identification (pin 1 = PE), Top entry, IP20, IP20 	1x	3 ... 14.5	09 14 001 0423	
Han-Modular® ECO, Bulkhead mounted housing, With PE identification (pin 1 = PE), IP65 			09 14 001 0321	 <p>Panel cut out</p>



Identification	Cable entry	Cable diameter (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Modular® ECO, Cable to cable housing, With PE identification (pin 1 = PE), With integrated cable gland, Top entry, IP65, IP65</p> 	<p>1x Integrated</p>	<p>6 ... 13</p>	<p>09 14 001 0721</p>	 <p>Tightening torque Cable gland 3 Nm</p>
<p>Han-Modular® ECO, Cable to cable housing, With PE identification (pin 1 = PE), Top entry, IP20, IP20</p> 	<p>1x</p>	<p>3 ... 14.5</p>	<p>09 14 001 0723</p>	
<p>Han-Modular®, Coding element, Pack contents: 8 pieces per frame</p> 			<p>09 14 000 9929</p>	



## Features

- Fast, easy and secure assembly
- Flexible building block system
- Suitable for Han-Modular® modules
- Over 100 modules available

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP54
Material (hood/housing)	Polyamide (PA), Fibre-glass reinforced
Colour (hood/housing)	RAL 9005 (jet black)
Material (seal)	NBR
Colour (seal)	RAL 9005 (jet black)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Specifications and approvals

IEC 61984  
EN 45545-1 R22: HL1, HL2

## Details

### Safety note


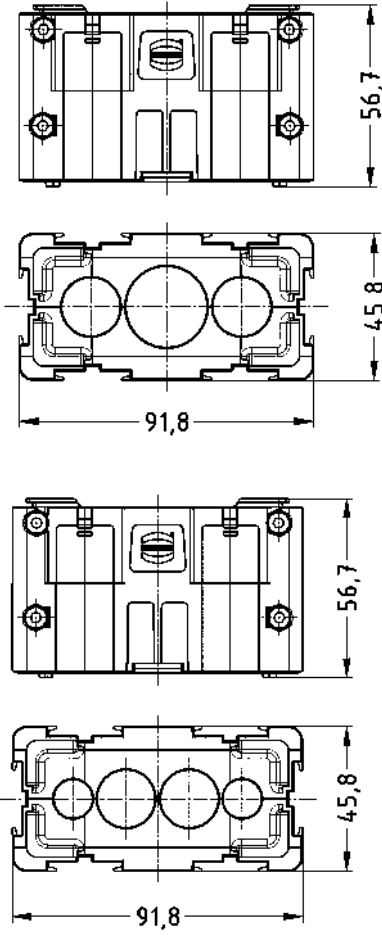


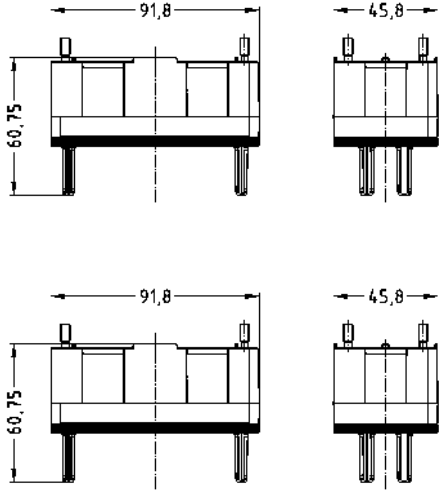


The modules listed in the table below are excluded from being used in the Han-Modular® Flexbox.

Module	Part no.
Han® 100A module (axial screw)	09 14 002 265X / 09 14 002 275X
Han® 70A module (axial screw)	09 14 002 264X / 09 14 002 274X
Han® 70A Hybrid module	09 14 005 264X / 09 14 005 274X
Han® HV module ("double")	09 14 002 302X / 09 14 002 312X
Han® HV Single module	09 14 002 3025 / 09 14 002 3125
Han® Megabit module	09 14 008 30XX / 09 14 008 31XX
Han-Smart® Ethernet-Switch module	09 80 113 0400

The following module is excluded from any use ≥ 1000 V in the Han-Modular® Flexbox:

Module	Part no.
Han® 300 A module	09 14 001 3004 / 09 14 001 3104


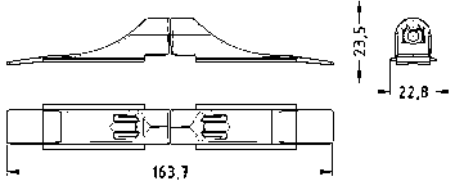

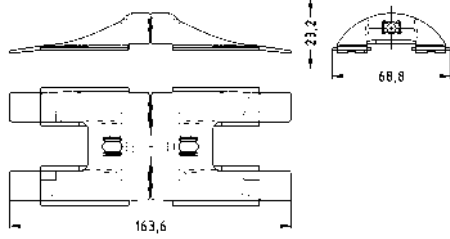
Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Modular® Flexbox, Hood, Top entry, IP54</p> 	<p>3x 4x</p>	<p>5 ... 24 4 ... 16</p>	<p>09 14 000 8013 09 14 000 8014</p>	
<p>Han-Modular® Flexbox, Carrier hood, for 4 modules, a ... d, IP54</p>  <p>Han-Modular® Flexbox, Carrier hood, for 4 modules, A ... D, IP54</p> 			<p>09 14 004 8001</p> <p>09 14 004 8101</p>	


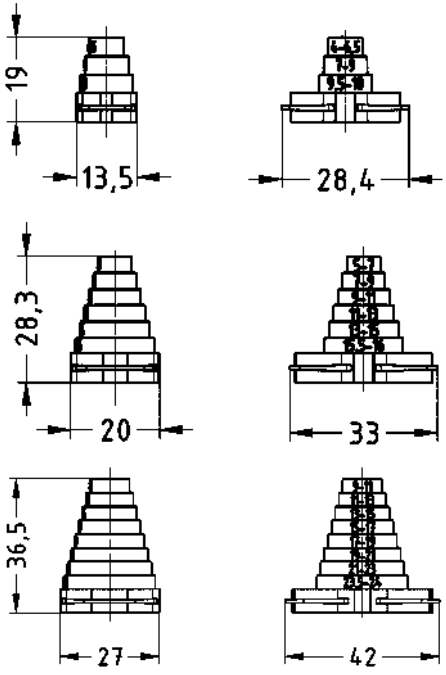

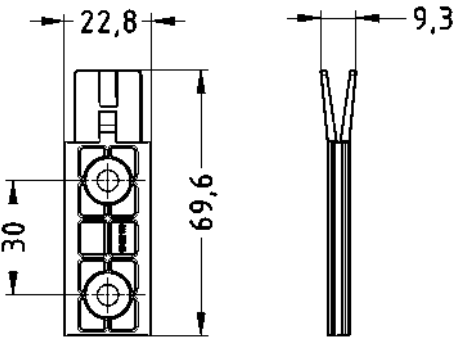

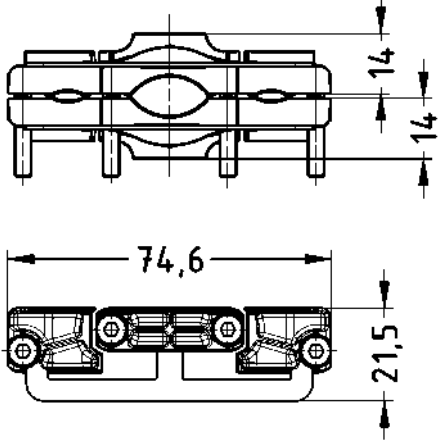
## Technical characteristics

Material (seal)	NBR
Colour (seal)	RAL 9005 (jet black)
Material (locking)	Polyamide (PA), Fibre-glass reinforced

## Technical characteristics


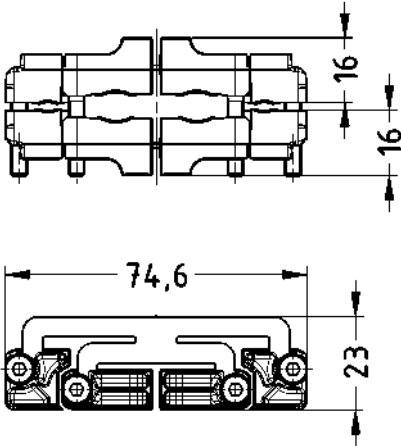
Colour (locking)	RAL 9005 (jet black)
Material (accessories)	Polyamide (PA), Fibre-glass reinforced
Colour (accessories)	RAL 9005 (jet black)
RoHS	compliant

Identification	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Locking element, Single 		09 14 000 8021	
Locking element, Double 		09 14 000 8022	

Identification	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Cable seal</p> 	<p>4 ... 10 5 ... 16 9 ... 24</p>	<p>09 14 000 8100 09 14 000 8200 09 14 000 8300</p>	
<p>Fixing, for the combination of two Flexboxes and for mounting the Flexbox</p> 		<p>09 14 000 8020</p>	
<p>Strain relief, 3 cable entries</p> 		<p>09 14 000 8033</p>	

Modular

Modular

Identification	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Strain relief, 4 cable entries</p> 		09 14 000 8034	

## Features

- Blind mating connector system for drawer systems
- Highest flexibility due to a product range of over 100 connector modules
- Direct panel mounting without hoods and housings
- Leading centring system compensates for tolerances of +/- 2 mm
- Compatible with HMC components for 10,000 mating cycles

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Mating cycles with other HMC components	≥10000
Degree of protection acc. to IEC 60529	IP20
Lock-in range	±4 mm
Material (frames)	Polycarbonate (PC)
Material (accessories)	Zinc die-cast
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Specifications and approvals

EN 60664-1  
IEC 61984


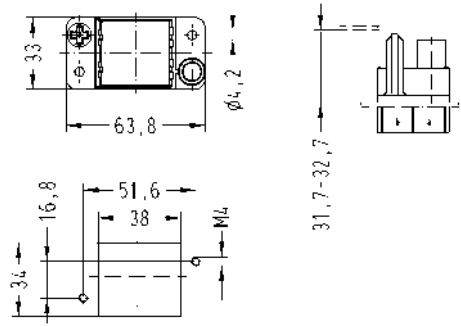

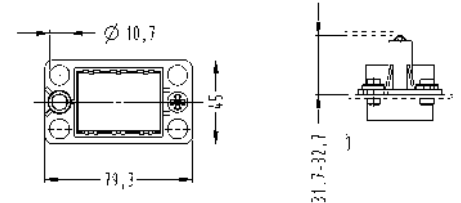

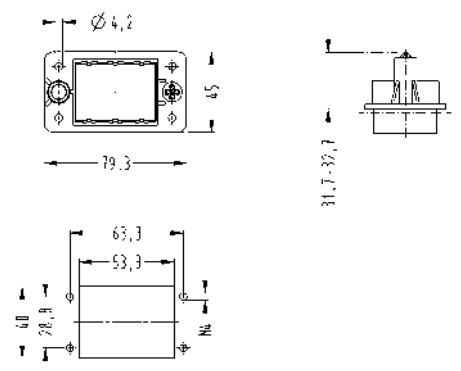

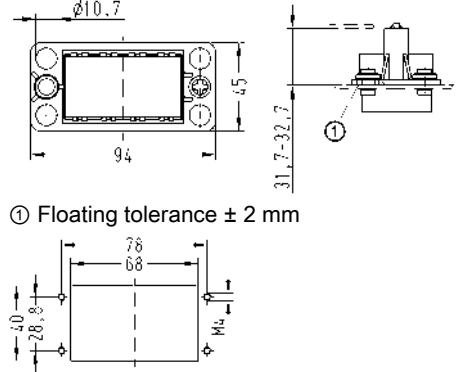
## Details

The docking frame has no PE contact as it is not required in many drawer system applications.


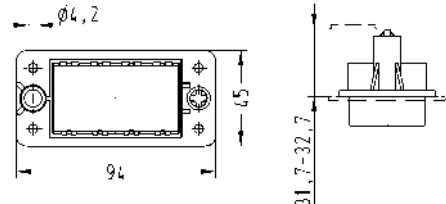
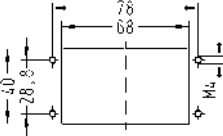

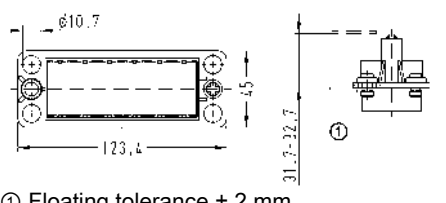
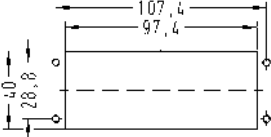

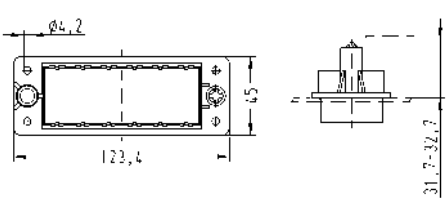
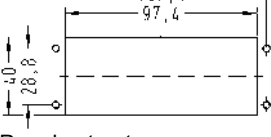
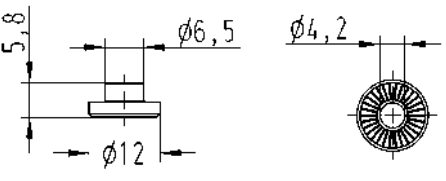
Identification	Part number	Drawing (dimensions in mm)
Han-Modular®, Docking frame, Float mount, for 2 modules, A ... B, IP20	09 14 006 1701	<p>⊙ Floating tolerance ± 2 mm Panel cut out</p>



Modular

Identification	Part number	Drawing (dimensions in mm)
<p>Han-Modular®, Docking frame, Fixed, for 2 modules, a ... b, IP20</p> 	<p>09 14 006 1711</p>	 <p>Panel cut out</p>
<p>Han-Modular®, Docking frame, Float mount, for 3 modules, A ... C, IP20</p> 	<p>09 14 010 1701</p>	 <p>① Floating tolerance ± 2 mm</p>
<p>Han-Modular®, Docking frame, Fixed, for 3 modules, a ... c, IP20</p> 	<p>09 14 010 1711</p>	 <p>Panel cut out</p>
<p>Han-Modular®, Docking frame, Float mount, for 4 modules, A ... D, IP20</p> 	<p>09 14 016 1701</p>	 <p>① Floating tolerance ± 2 mm</p> <p>Panel cut out</p>



Identification	Part number	Drawing (dimensions in mm)
<p>Han-Modular®, Docking frame, Fixed, for 4 modules, a ... d, IP20</p> 	09 14 016 1711	 <p>Panel cut out</p> 
<p>Han-Modular®, Docking frame, Float mount, for 6 modules, A ... F, IP20</p> 	09 14 024 1701	 <p>① Floating tolerance <math>\pm 2</math> mm</p>  <p>Panel cut out</p>
<p>Han-Modular®, Docking frame, Fixed, for 6 modules, a ... f, IP20</p> 	09 14 024 1711	 <p>Panel cut out</p> 
<p>Han-Modular®, Float washer To enable the frame to be float mounted using standard M4 fixing screws</p>	09 14 000 9936	

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP20
Material (accessories)	Thermoplastic
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Specifications and approvals

DIN EN 45545-2 R22: HL1, HL2, HL3  
 DIN EN 45545-2 R23: HL1, HL2, HL3

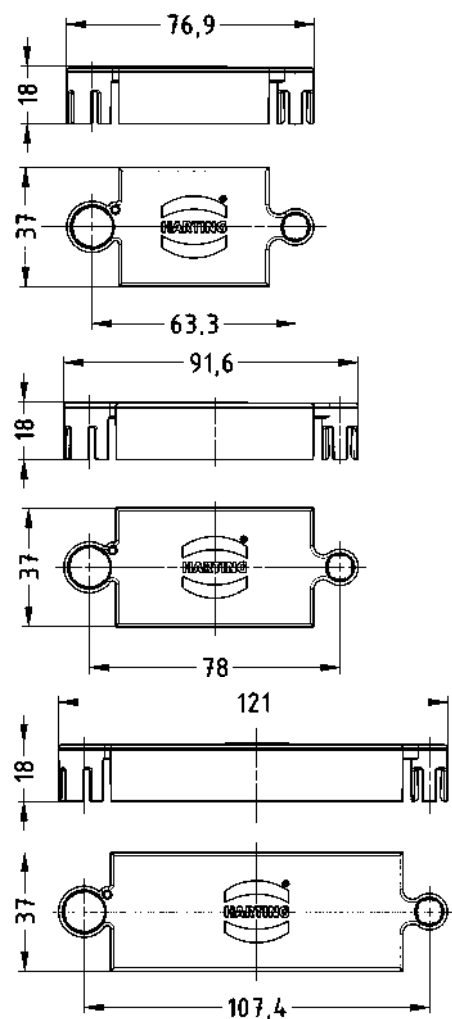
Identification	Size	Part number	Drawing (dimensions in mm)
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Han-Modular®,  
 Dust protection cover,  
 for Han-Modular® plastic docking frame,  
 IP20



10 B  
 16 B  
 24 B

09 14 010 5701  
 09 14 016 5701  
 09 14 024 5701



## Features

- Blind mating connector system for drawer systems with test position
- Direct panel mounting without hoods and housings
- Solid leading guide pins and bushes
- Suitable for many modules of the Han-Modular® product series (Please contact your HARTING salesman for support to find your specific combination.)

## Technical characteristics

Limiting temperature	-5 ... +55 °C
Mating cycles	≥500
Lock-in range	±4 mm
Material (frames)	Polycarbonate (PC)
Material (accessories)	Zinc die-cast
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Specifications and approvals

EN 60664-1  
IEC 61984

## Details

Due the plastic material used in the docking frame without PE, the panel will need to be grounded separately.

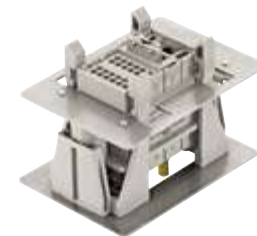
## Details




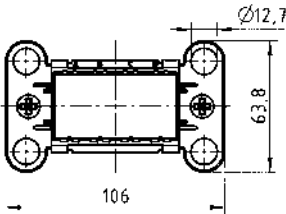

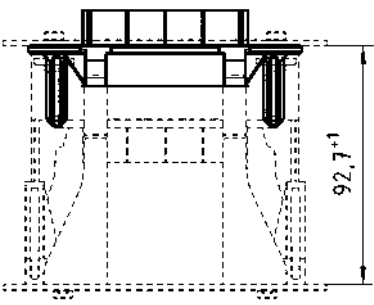
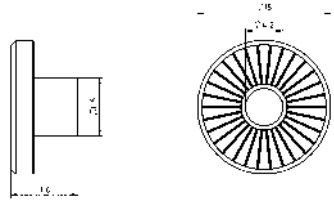

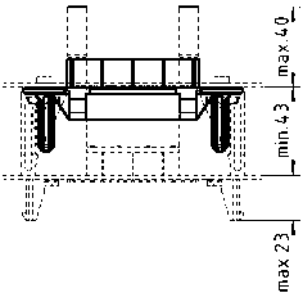
**Position unmated**  
The drawer system and the modules are not mated.



**Test position**  
The drawer system is in the so called test position – the modules are mated.



**Working position**  
The drawer system is pushed completely into the rack – the modules remain mated.



Identification	Part number	Drawing (dimensions in mm)
<p>Sliding frame, with test position, for 4 modules, Float mount, A ... D</p> 	09 14 016 1721	
<p>Sliding frame, with test position, for 4 modules, Movable side, a ... d</p> 	09 14 016 1731	
<p>Han-Modular®, Float washer To enable the Sliding Frame to be float mounted using standard M4 fixing screws</p>	09 14 000 9986	
<p>Rail guide, for sliding frames for movable side</p> 	09 14 000 9987	

## Features


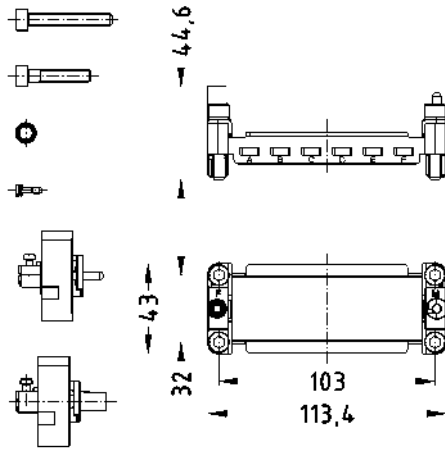

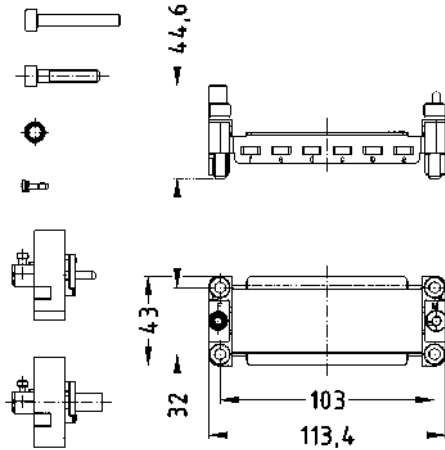

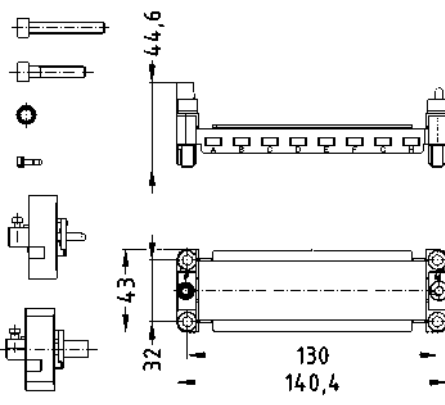
- Hinged frames with additional PE connection for 6 Han-Modular® single modules
- Two leading PE contacts
- Compatible to the hinged frame Han® HPR EasyCon
- Compatible to the hinged frame Han® HPR enlarged


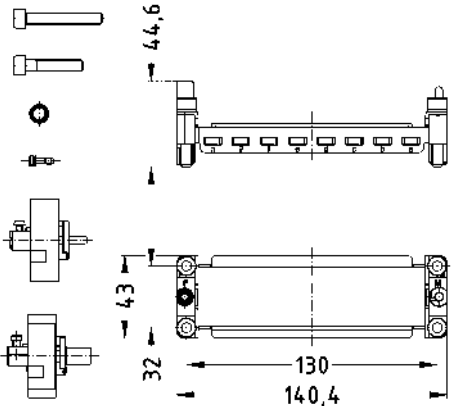

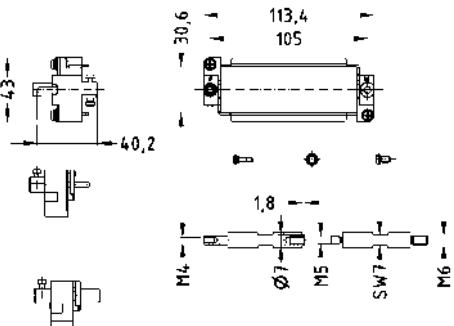

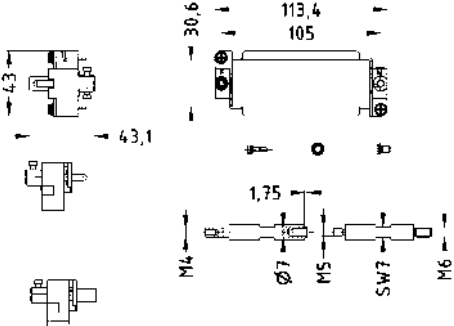
## Technical characteristics

Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (accessories)	Stainless steel, Zinc die-cast
RoHS	compliant

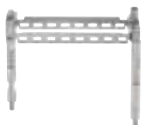
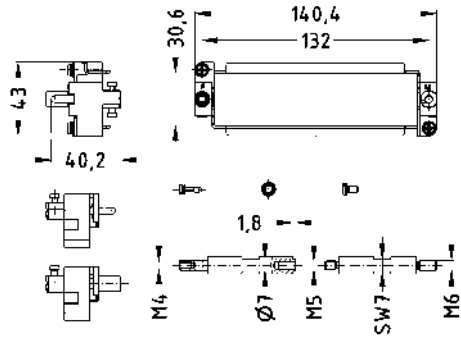
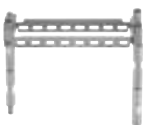
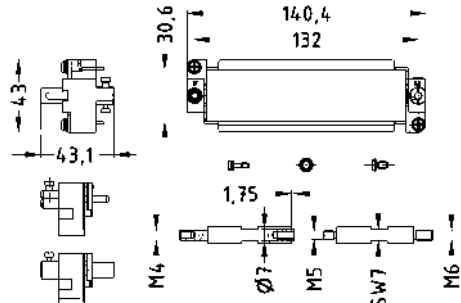
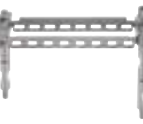
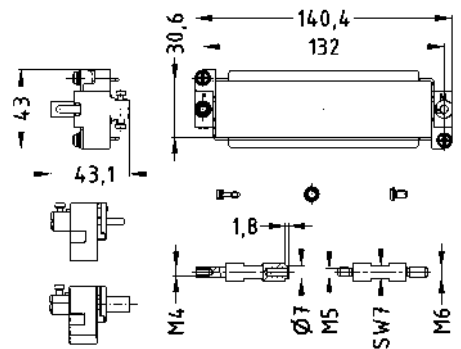
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	Drawing (dimensions in mm)
<p>Han® HPR enlarged, Frame, for up to 6 single modules, A ... F,</p> <p>Pack contents: 2x M4 screw, 2x washer SK S4, 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 30, 4x washer SK S6</p> 		09 11 000 9945	
<p>Han® HPR enlarged, Frame, for up to 6 single modules, a ... f,</p> <p>Pack contents: 2x M4 screw, 2x washer SK S4, 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 30, 4x washer SK S6</p> 		09 11 000 9946	

Modular


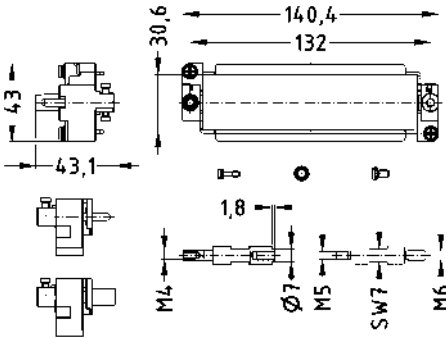
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	Drawing (dimensions in mm)
<p>Han® HPR enlarged, Frame, for up to 6 single modules, A ... F,</p> <p>Pack contents:                      1x male PE adapter,                      1x female PE adapter,                      2x M3 screw,                      4x washer SK S6,                      4x cheese-head screw M6 x 30,                      4x cheese-head screw M6 x 40</p> 	<p>4 ... 10 PE terminal power side, 1 ... 2.5 PE terminal signal side</p>	<p>09 11 016 9933</p>	
<p>Han® HPR enlarged, Frame, for up to 6 single modules, a ... f,</p> <p>Pack contents:                      1x male PE adapter,                      1x female PE adapter,                      2x M3 screw,                      4x washer SK S6,                      4x cheese-head screw M6 x 30,                      4x cheese-head screw M6 x 40</p> 	<p>4 ... 10 PE terminal power side, 1 ... 2.5 PE terminal signal side</p>	<p>09 11 016 9934</p>	
<p>Han® HPR enlarged, Frame, for up to 8 single modules, A ... H,</p> <p>Pack contents:                      1x male PE adapter,                      1x female PE adapter,                      2x M3 screw,                      4x washer SK S6,                      4x cheese-head screw M6 x 30,                      4x cheese-head screw M6 x 40</p> 	<p>4 ... 10 PE terminal power side, 1 ... 2.5 PE terminal signal side</p>	<p>09 11 024 9933</p>	

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	Drawing (dimensions in mm)
<p>Han® HPR enlarged, Frame, for up to 8 single modules, a ... h,</p> <p>Pack contents:                      1x male PE adapter,                      1x female PE adapter,                      2x M3 screw,                      4x washer SK S6,                      4x cheese-head screw M6 x 30,                      4x cheese-head screw M6 x 40</p> 	<p>4 ... 10 PE terminal power side, 1 ... 2.5 PE terminal signal side</p>	<p>09 11 024 9934</p>	
<p>Han® HPR EasyCon, Frame, for up to 6 single modules, A ... F,</p> <p>Pack contents:                      1x male PE adapter,                      1x female PE adapter,                      2x M4/M5 distance bolts (A/F 7),                      2x M5/M6 distance bolts (A/F 7),                      2x M3 screw,                      2x M4 screw,                      2x washer SK S4</p> 	<p>4 ... 10 PE terminal power side, 1 ... 2.5 PE terminal signal side</p>	<p>09 40 016 9933</p>	
<p>Frame, for up to 6 single modules, a ... f,</p> <p>Pack contents:                      1x male PE adapter,                      1x female PE adapter,                      2x M4/M5 distance bolts (A/F 7),                      2x M5/M6 distance bolts (A/F 7),                      2x M3 screw,                      2x M4 screw,                      2x washer SK S4</p> 	<p>4 ... 10 PE terminal power side, 1 ... 2.5 PE terminal signal side</p>	<p>09 40 016 9934</p>	

Modular

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	Drawing (dimensions in mm)
<p>Han® HPR EasyCon, Frame, for up to 8 single modules, A ... H,</p> <p>Pack contents:                      1x male PE adapter,                      1x female PE adapter,                      2x M4/M5 distance bolts (A/F 7),                      2x M5/M6 distance bolts (A/F 7),                      2x M3 screw,                      2x M4 screw,                      2x washer SK S4</p> 	<p>4 ... 10 PE terminal power side, 1 ... 2.5 PE terminal signal side</p>	<p>09 40 024 9933</p>	
<p>Han® HPR EasyCon, Frame, for up to 8 single modules, a ... h,</p> <p>Pack contents:                      1x male PE adapter,                      1x female PE adapter,                      2x M4/M5 distance bolts (A/F 7),                      2x M5/M6 distance bolts (A/F 7),                      2x M3 screw,                      2x M4 screw,                      2x washer SK S4</p> 	<p>4 ... 10 PE terminal power side, 1 ... 2.5 PE terminal signal side</p>	<p>09 40 024 9934</p>	
<p>Han® HPR EasyCon, Frame, for up to 8 single modules, A ... H,                      Low construction,</p> <p>Pack contents:                      1x male PE adapter,                      1x female PE adapter,                      2x M4/M5 distance bolts (A/F 7),                      2x M5/M6 distance bolts (A/F 7),                      2x M3 screw,                      2x M4 screw,                      2x washer SK S4</p> 	<p>4 ... 10 PE terminal power side, 1 ... 2.5 PE terminal signal side</p>	<p>09 40 024 9935</p>	
<p>ATTENTION! Only to be used with Han® 24 HPR EasyCon Short hoods and housings!</p>			



Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	Drawing (dimensions in mm)
<p>Han® HPR EasyCon, Frame, for up to 8 single modules, a ... h, Low construction,</p> <p>Pack contents:                      1x male PE adapter,                      1x female PE adapter,                      2x M4/M5 distance bolts (A/F 7),                      2x M5/M6 distance bolts (A/F 7),                      2x M3 screw,                      2x M4 screw,                      2x washer SK S4</p>  <p>ATTENTION! Only to be used with Han® 24 HPR EasyCon Short hoods and housings!</p>	<p>4 ... 10 PE terminal power side, 1 ... 2.5 PE terminal signal side</p>	<p>09 40 024 9936</p>	

Modular

Modular

Technical characteristics

Material (accessories)      Stainless steel

Technical characteristics

RoHS      compliant

Identification

Part number

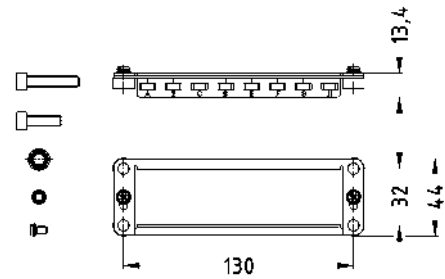
Drawing (dimensions in mm)

Han® HPR enlarged, Frame, for up to 8 single modules, A ... H,

Pack contents:  
2x M4 screw,  
2x washer SK S4,  
4x cheese-head screw M6 x 20,  
4x cheese-head screw M6 x 30,  
4x washer SK S6



09 11 000 9935



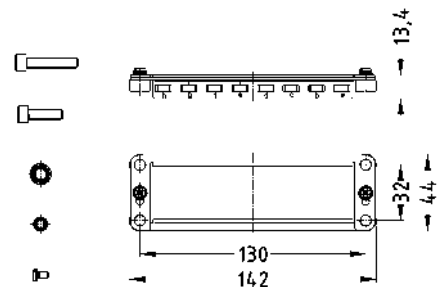
Tightening torque Fixing screws M6: 10 Nm  
Tightening torque Screws M4: 1.5 Nm

Han® HPR enlarged, Frame, for up to 8 single modules, a ... h,

Pack contents:  
2x M4 screw,  
2x washer SK S4,  
4x cheese-head screw M6 x 20,  
4x cheese-head screw M6 x 30,  
4x washer SK S6



09 11 000 9936



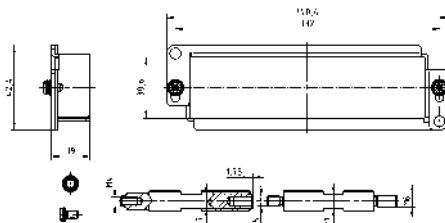
Tightening torque Fixing screws M6: 10 Nm  
Tightening torque Screws M4: 1.5 Nm

Han® HPR EasyCon, Frame, for up to 8 single modules, A ... H,


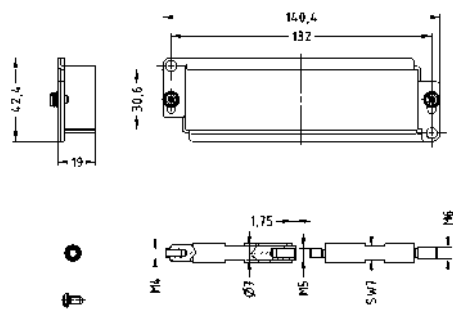
Pack contents:  
2x M4/M5 distance bolts (A/F 7),  
2x M5/M6 distance bolts (A/F 7),  
4x M4 screw,  
4x washer SK S4



09 40 024 9931



Tightening torque Distance bolt 6 Nm  
Tightening torque Fixing screws M4: 1.5 Nm  
Tightening torque M4: 1.5 Nm

Identification	Part number	Drawing (dimensions in mm)
<p>Han® HPR EasyCon, Frame, for up to 8 single modules, a ... h,</p> <p>Pack contents: 2x M4/M5 distance bolts (A/F 7), 2x M5/M6 distance bolts (A/F 7), 4x M4 screw, 4x washer SK S4</p> 	<p>09 40 024 9932</p>	 <p>Tightening torque Distance bolt 6 Nm Tightening torque Fixing screws M4: 1.5 Nm Tightening torque M4: 1.5 Nm</p>

Modular

## Technical characteristics

Material (insert) Polycarbonate (PC)  
 Colour (insert) RAL 7032 (pebble grey)  
 Material (locking) Polycarbonate (PC)

## Technical characteristics

Material (accessories) Thermoplastic  
 Material flammability class acc. to UL 94 V-0  
 RoHS compliant

### Identification

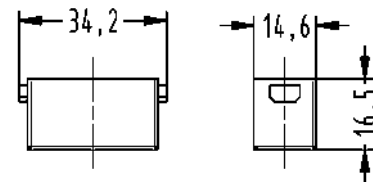
### Part number

### Drawing (dimensions in mm)

Han-Modular®,  
 Han® Dummy module



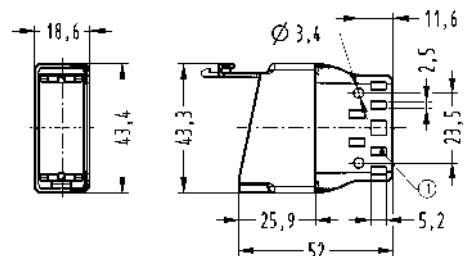
09 14 000 9950



Han-Modular®,  
 Module locking system,  
 With strain relief,  
 Pack contents:  
 1 module locking system



09 14 000 0312

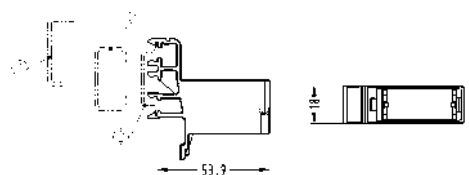


① For cable ties with max. 5 mm width

Han-Modular®,  
 Module locking system,  
 for rail,  
 Pack contents:  
 1 module locking system



09 14 000 0313

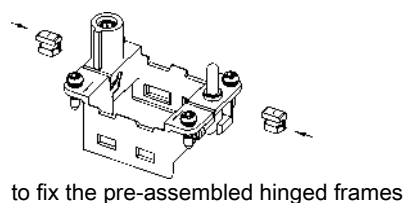


- ① G-rail IEC 60715-G32
- ② Rail IEC 60715-35 x 7.5 with 1 mm thickness or -35 x 15 with 1.5 mm thickness
- ③ C-rail IEC 60715-C30

Han-Modular®,  
 Fixing,  
 for Han-Modular® hinged frames,  
 Pack contents:  
 20 pieces per frame



09 14 000 9960



to fix the pre-assembled hinged frames



## Features

- Applicable as a guiding element for electrical power and signal modules in the Han-Modular® hinged frame plus
- Considerable time saving assembly compared to conventional guide pins / bushes
- Colour coding with 6 different colours

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Material (accessories)	Polycarbonate (PC)
Colour (accessories)	Grey, Red, Blue, Black, Yellow, Green
Material flammability class acc. to UL 94	V-0
RoHS	compliant

Identification		Part number	Drawing (dimensions in mm)
Han-Modular®, Guide element, Han-Modular® Guard, for Han-Modular® hinged frames		09 14 000 9993 09 14 000 9992 09 14 000 9995 09 14 000 9990 09 14 000 9991 09 14 000 9994	

## Technical characteristics

Material (accessories)      Zinc die-cast  
RoHS                              compliant with exemption

## Details

PE connection (0.75 ... 2.5 mm<sup>2</sup>) with cable shoe

### Identification

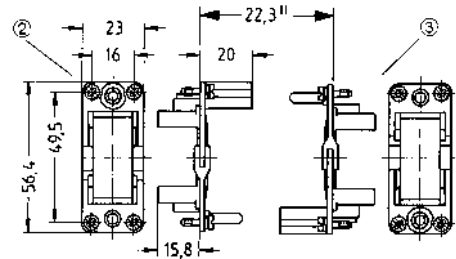
Frame,  
for 1 module,  
In housing Han® 10 A



### Part number

09 14 000 0304

### Drawing (dimensions in mm)




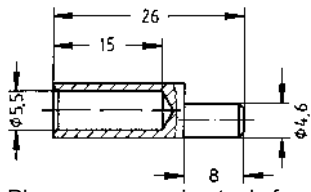
- ① Distance max. 23.5 mm
- ② Hood
- ③ Housing

## Technical characteristics

Material (contacts)      Copper alloy

## Technical characteristics

RoHS      compliant

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	Drawing (dimensions in mm)
<p>Han-Modular®, Cable shoe, for PE extension</p>  <p>for hoods/housings high construction only</p>	<p>16</p>	<p>09 14 000 9912</p>	 <p>Please use pressing tools for non-insulated cable shoes following DIN 46230 with 16 mm<sup>2</sup> range (eg. K25, co. Klauke)</p>

Contents

Page

Han® HsB .....  
Contacts .....  
Tools .....

**Han 07.2**  
**Han 07.6**  
**Han 07.7**

Han  
HsB



## Features

- Suitable for power supply applications
- Crimp termination
- Screw termination with wire protection
- Termination with standard screw driver

## Technical characteristics

Number of contacts	6, 12
Rated current	35 A
Rated voltage conductor-earth	400 V
Rated voltage conductor-conductor	690 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Rated voltage acc. to CSA	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤1 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

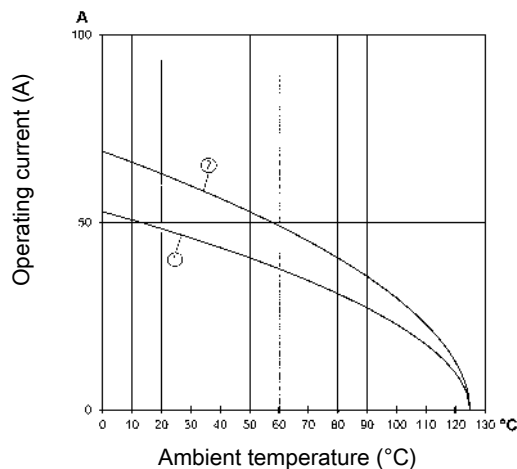
## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2

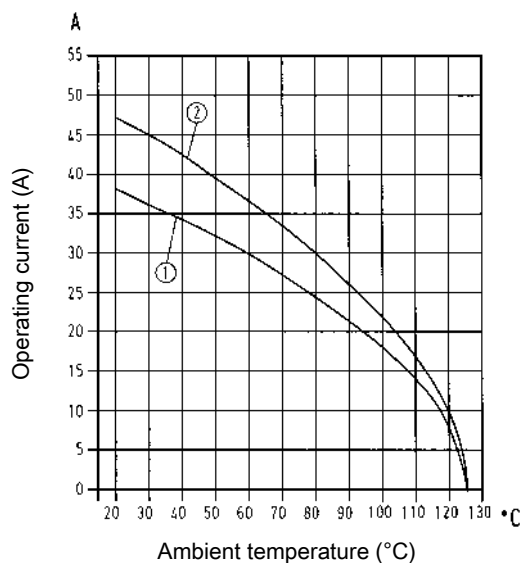
Crimp termination



- ① Conductor cross-section 6 mm<sup>2</sup>
- ② Conductor cross-section 10 mm<sup>2</sup>

## Derating

Screw termination



- ① Conductor cross-section 4 mm<sup>2</sup>
- ② Conductor cross-section 6 mm<sup>2</sup>

## Specifications and approvals


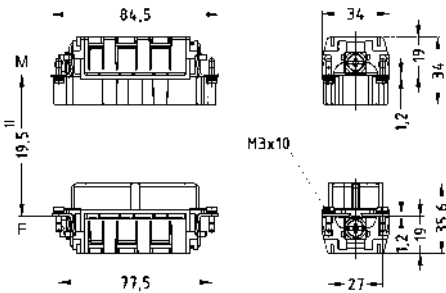
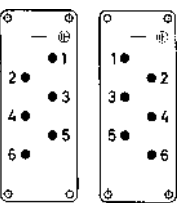
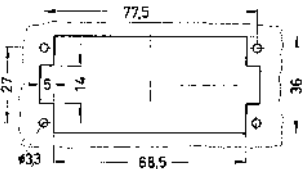
EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 UL 2237 PVVA2.E318390  
 CSA-C22.2 No. 182.3 PVVA8.E318390

Number of contacts


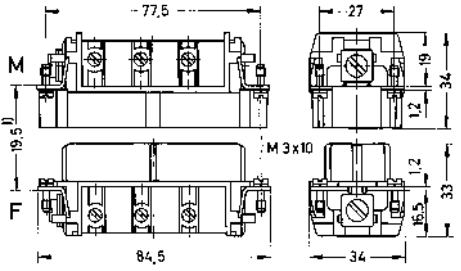
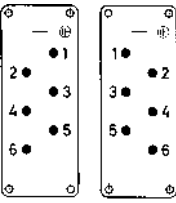
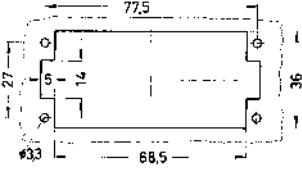
6+

35 A 400/690 V 6 kV 3  
35 A 500 V 6 kV 3

Han  
HsB

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® HsB, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	1.5 ... 10	09 31 006 3001	09 31 006 3101	 <p>1) distance for contact max. 21 mm</p>  <p>M F Contact arrangement (view from termination side)</p>  <p>Panel cut out for use without Hoods/Housings</p>

Han  
HsB

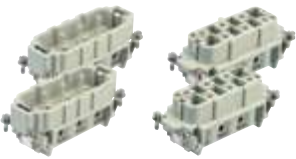
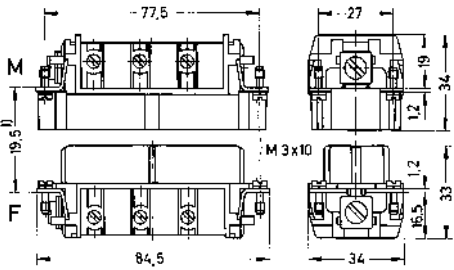

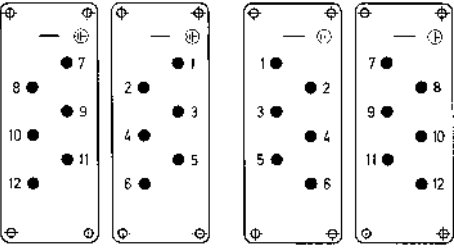
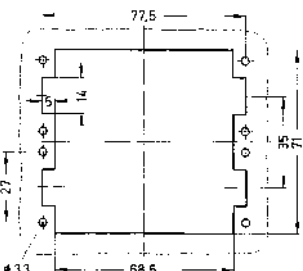
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han® HsB, Screw termination, With wire protection, Contact surface: Silver plated 	1.5 ... 6	09 31 006 2601	09 31 006 2701	 <p>1) distance for contact max. 21 mm                      Tightening torque Clamping screw 1.2 Nm</p>  <p>M F                      Contact arrangement (view from termination side)</p>  <p>Panel cut out                      for use without Hoods/Housings</p>

Number of contacts

12+

35 A 400/690 V 6 kV 3  
35 A 500 V 6 kV 3

Han  
HsB


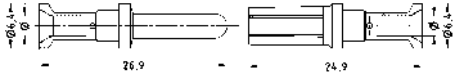
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® HsB, Screw termination, With wire protection, 1 ... 6</p> <p>Contact surface: Silver plated</p>  <p>You need two inserts for a complete assembly!</p>	1.5 ... 6	09 31 006 2601	09 31 006 2701	 <p>1) distance for contact max. 21 mm Tightening torque Clamping screw 1.2 Nm</p>
<p>Han® HsB, Continuing marking, Screw termination, With wire protection, 7 ... 12</p> <p>Contact surface: Silver plated</p>  <p>You need two inserts for a complete assembly!</p>	1.5 ... 6	09 31 006 2611	09 31 006 2711	 <p>M F</p> <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out for use without Hoods/Housings</p>

## Technical characteristics

Contact resistance  $\leq 1 \text{ m}\Omega$   
 Material (contacts) Copper alloy

## Specifications and approvals

EN 60664-1  
 IEC 61984




Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																		
		Male	Female																			
Han® HsB, Crimp contact, Contact surface: Silver plated 	1.5	09 31 000 6104	09 31 000 6204	 <table border="1"> <thead> <tr> <th>Wire gauge</th> <th>∅</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.78 mm</td> <td>9.5 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.28 mm</td> <td>9.5 mm</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>2.88 mm</td> <td>9.5 mm</td> </tr> <tr> <td>6 mm<sup>2</sup> AWG 10</td> <td>3.53 mm</td> <td>9.5 mm</td> </tr> <tr> <td>10 mm<sup>2</sup> AWG 8</td> <td>4.33 mm</td> <td>9.5 mm</td> </tr> </tbody> </table>	Wire gauge	∅	Stripping length	1.5 mm <sup>2</sup> AWG 16	1.78 mm	9.5 mm	2.5 mm <sup>2</sup> AWG 14	2.28 mm	9.5 mm	4 mm <sup>2</sup> AWG 12	2.88 mm	9.5 mm	6 mm <sup>2</sup> AWG 10	3.53 mm	9.5 mm	10 mm <sup>2</sup> AWG 8	4.33 mm	9.5 mm
	Wire gauge	∅	Stripping length																			
	1.5 mm <sup>2</sup> AWG 16	1.78 mm	9.5 mm																			
	2.5 mm <sup>2</sup> AWG 14	2.28 mm	9.5 mm																			
	4 mm <sup>2</sup> AWG 12	2.88 mm	9.5 mm																			
6 mm <sup>2</sup> AWG 10	3.53 mm	9.5 mm																				
10 mm <sup>2</sup> AWG 8	4.33 mm	9.5 mm																				
2.5	09 31 000 6105	09 31 000 6205																				
4	09 31 000 6101	09 31 000 6201																				
6	09 31 000 6102	09 31 000 6202																				
10	09 31 000 6103	09 31 000 6203																				

## Details

The professional tool for big cross-sections.

## Details

The professional tool for crimping Han® HsB contacts.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	
Crimping tool, Han® C: 4 ... 10 mm <sup>2</sup> , Pack contents: incl. locator	4 ... 10	09 99 000 0377	
Crimping tool, Han® HsB: 1.5 ... 4 mm <sup>2</sup> , Pack contents: incl. locator	1.5 ... 4	09 99 000 0986	
Locator, for part number 09 99 000 0377, Han® HsB: 4 ... 10 mm <sup>2</sup>		09 99 000 0985	
Removal tool, Han® HsB		09 99 000 0987	

## Contents

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Han D® AV .....	<b>Han 08.4</b>
Han D® AV distributor .....	<b>Han 08.9</b>
Han E® AV .....	<b>Han 08.11</b>
Han® ES AV .....	<b>Han 08.20</b>
Accessories .....	<b>Han 08.25</b>

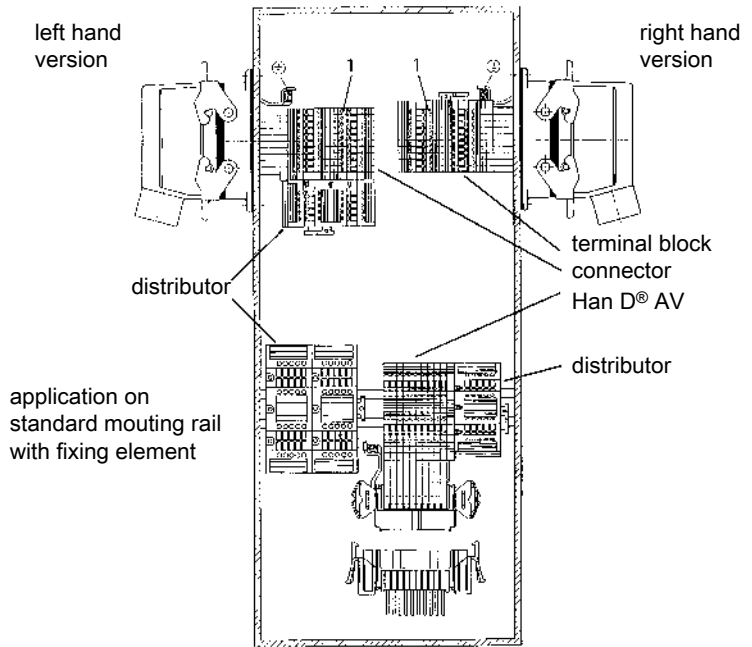
## Arrangement in switch cabinet

Terminal block connector in left or right hand version; therefore identical pre-assembled interface cables can be used on both sides.

For application inside of a switch cabinet, on standard mounting rails in conjunction with Han Snap<sup>®</sup>

Mount the distributor on a standard mounting rail or on the terminal block connector Han D<sup>®</sup> AV!

The terminal block connectors can be supplied for left or right hand applications so that the PE terminal as well as the terminal for contact no. 1 will be accessible from the "top" in both types of installation.

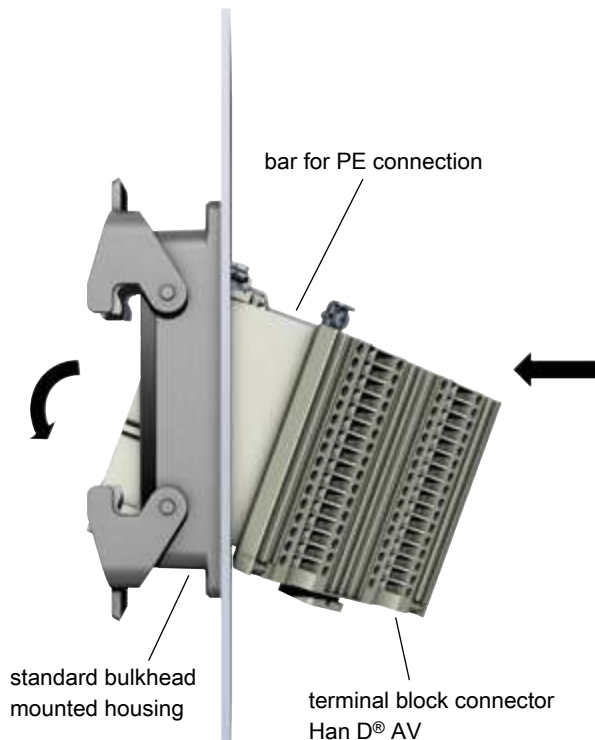


## Assembly of terminal block connector

A separate pre-assembly is possible: Therefore, the distributor must be thread from the inside of the switch cabinet into the standard bulkhead mounted housing.

### Note:

On one side of the distributor is a bar for PE connection. Insert the distributor – slightly inclined, the side without the PE conductor leading – from the rear into the bulkhead mounted housing!



## Identification

The individual terminals have the same identification as on the mating face. In addition each circuit may be separately labelled with identification strips fitted in the adjacent slots.

## Counterparts

For suitable mating inserts of serie Han D<sup>®</sup> with crimp termination please refer to the chapter 02.

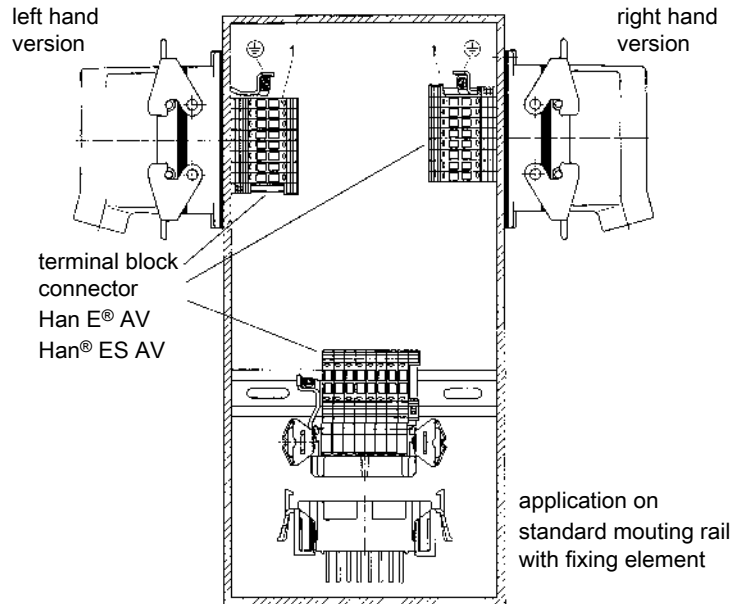


## Arrangement in switch cabinet

Terminal block connector in left or right hand version; therefore identical pre-assembled interface cables can be used on both sides.

For application inside of a switch cabinet, on standard mounting rails in conjunction with Han Snap<sup>®</sup>

The terminal block connectors can be supplied for left or right hand applications so that the PE terminal as well as the terminal for contact no. 1 will be accessible from the "top" in both types of installation.



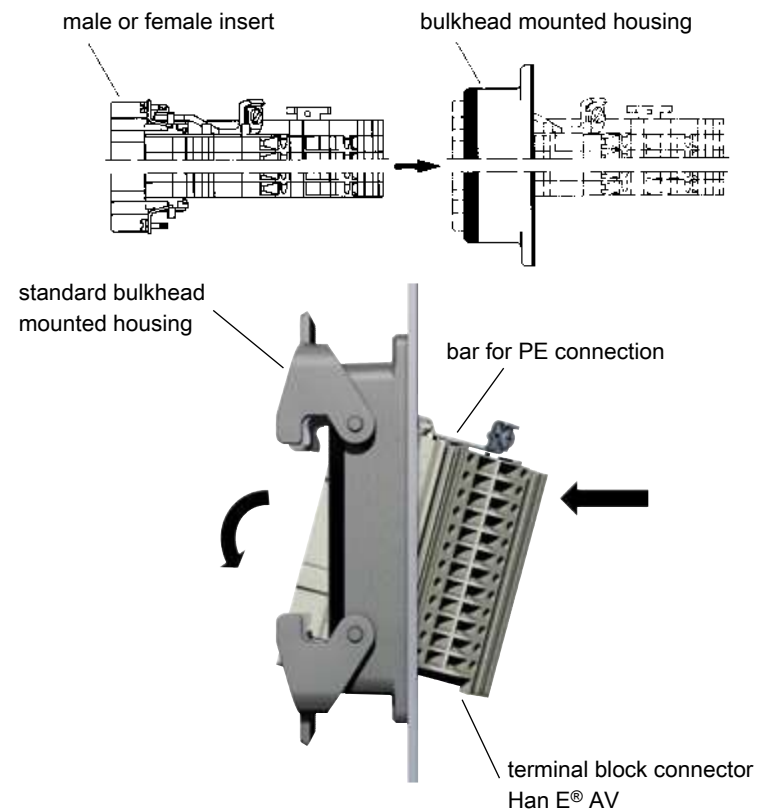
## Assembly of terminal block connector

The terminal block connector is inserted into the standard bulkhead mounted housing and fastened – like any standard contact insert – with four fixing screws.

A separate pre-assembly is possible with Han E<sup>®</sup> AV and Han<sup>®</sup> ES AV, in the variants with 16 and 24 poles. Therefore, the distributor must be thread from the inside of the switch cabinet into the standard bulkhead mounted housing.

### Note:

On one side of the distributor is a bar for PE connection. Insert the distributor – slightly inclined, the side without the PE conductor leading – from the rear into the bulkhead mounted housing!



## Identification

The individual terminals have the same identification as on the mating face. In addition each circuit may be separately labelled with identification strips fitted in the adjacent slots.

## Counterparts

For suitable mating inserts of series Han E<sup>®</sup> and Han<sup>®</sup> ES with screw, cage-clamp or crimp termination please refer to the chapter 03.

## Features

- for left or right hand applications available
- PE and connecting terminal for contact no.1 are at the top in both types of installation
- Mountable in standard bulkhead mounted housings and on standard rails by using of fixing elements
- Screw termination with wire protection

## Technical characteristics

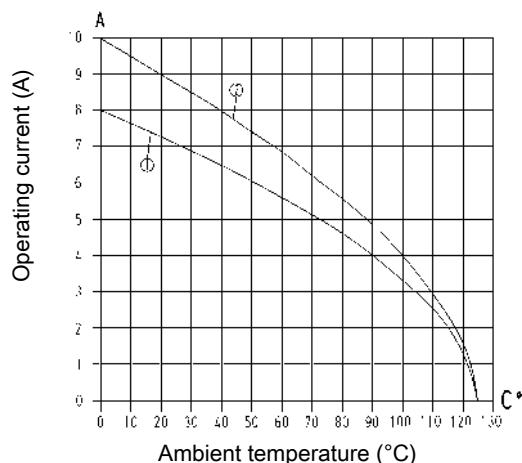
Number of contacts	40, 64
Rated current	10 A
Rated voltage	250 V
Rated impulse voltage	4 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤4 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Derating

### Current carrying capacity

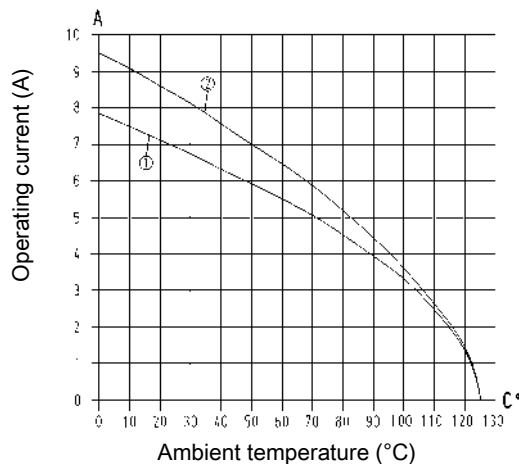
The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Han<sup>®</sup> 40 D AV Conductor cross-section 0.75 mm<sup>2</sup>
- ② Han<sup>®</sup> 40 D AV Conductor cross-section 1.5 mm<sup>2</sup>

## Derating



- ① Han<sup>®</sup> 64 D AV Conductor cross-section 0.75 mm<sup>2</sup>
- ② Han<sup>®</sup> 64 D AV Conductor cross-section 1.5 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
DNV GL

## Details

Stripping length 8 ... 11 mm

Tightening torque 0.5 Nm

**Hoods/Housings** see chapter Han 31

### Identification

The individual terminals have the same identification as on the mating face. In addition each circuit may be separately labelled with identification strips fitted in the adjacent slots.

### Identification strips

Multi contour (MK) the following identification strips may be used

- ♦ HARTING – 09 21 000 9971
- ♦ Murrplastik – KPX 5/10-5
- ♦ Weidmüller – DEK 5
- ♦ Phoenix – 4 K – DST 5
- ♦ Phoenix – DS 5
- ♦ Phoenix – ZB 5
- ♦ WAGO – WSB 5

Single contour (SK) the following identification strips may be used


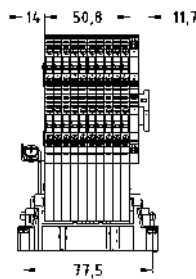
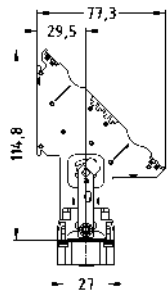

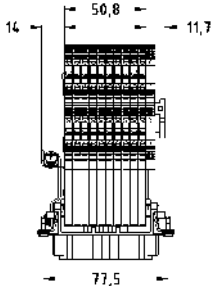
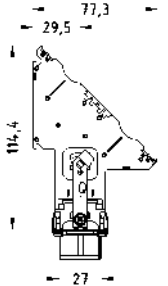
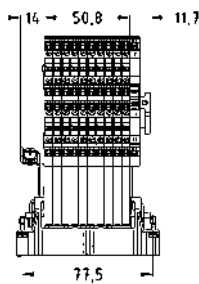
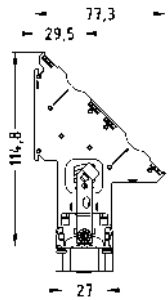
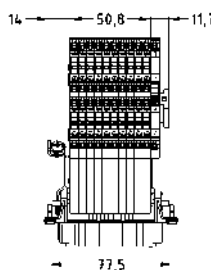
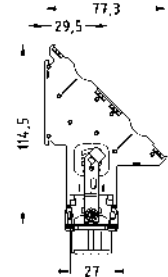
- ♦ Murrplastik – KWI 5/10
- ♦ Murrplastik – KWI 5/10-5
- ♦ Murrplastik – KWI 8.6-5
- ♦ Wieland – 9705 A 5/10
- ♦ WAGO – Mini - WSB

Number of contacts


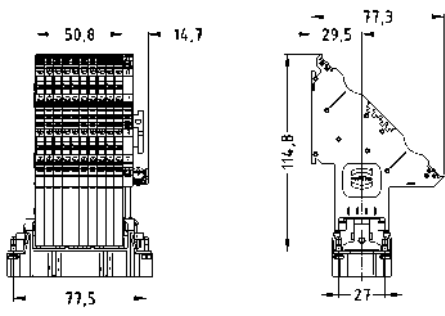
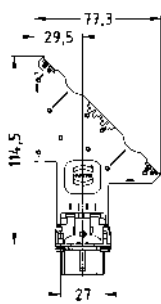

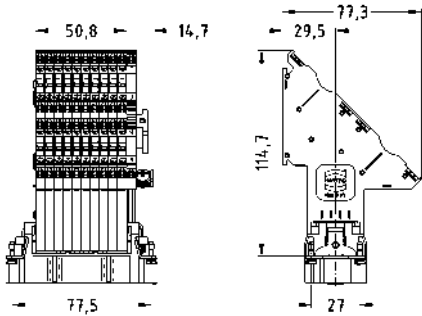
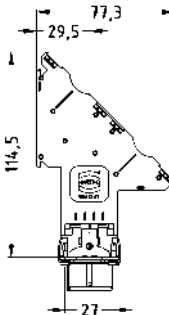
40+

10 A 250 V 4 kV 3

Han AV

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)	
		Male	Female		
<p>Han D<sup>®</sup> AV, Terminal block connector, Left hand version, Multi contour (MK), Screw termination, Contact surface: Silver plated</p> 	0.2 ... 2.5	09 21 040 4601	09 21 040 4701		
<p>Han D<sup>®</sup> AV, Terminal block connector, Left hand version, Single contour (SK), Screw termination, Contact surface: Silver plated</p> 	0.2 ... 2.5	09 21 040 4602	09 21 040 4702		
					
					

Han AV

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)	
		Male	Female		
<p>Han D<sup>®</sup> AV, Terminal block connector, Right hand version, Multi contour (MK), Screw termination, Contact surface: Silver plated</p> 	0.2 ... 2.5	09 21 040 4611	09 21 040 4711		
<p>Han D<sup>®</sup> AV, Terminal block connector, Right hand version, Single contour (SK), Screw termination, Contact surface: Silver plated</p> 	0.2 ... 2.5	09 21 040 4612	09 21 040 4712		

Number of contacts

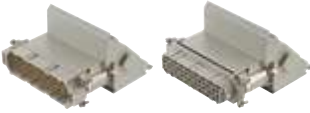
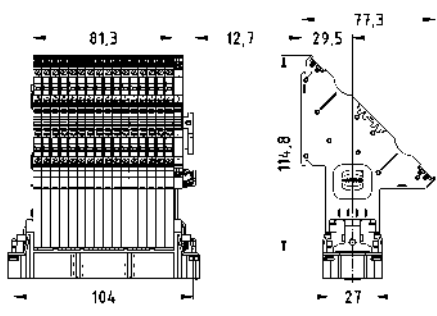

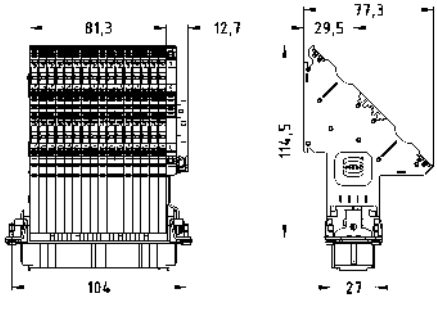
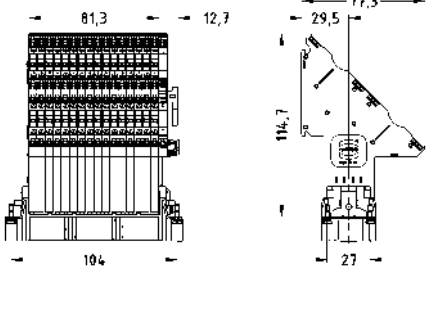
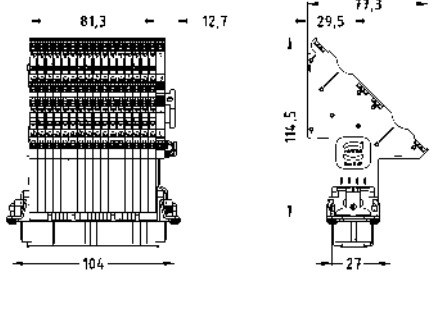
# 64+

10 A 250 V 4 kV 3

Han AV

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)	
		Male	Female		
<p>Han D<sup>®</sup> AV, Terminal block connector, Left hand version, Multi contour (MK), Screw termination, Contact surface: Silver plated</p>	0.2 ... 2.5	09 21 064 4601	09 21 064 4701		
<p>Han D<sup>®</sup> AV, Terminal block connector, Left hand version, Single contour (SK), Screw termination, Contact surface: Silver plated</p>	0.2 ... 2.5	09 21 064 4602	09 21 064 4702		

Han AV

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han D® AV, Terminal block connector, Right hand version, Multi contour (MK), Screw termination, Contact surface: Silver plated</p> 	0.2 ... 2.5	09 21 064 4611	09 21 064 4711	
<p>Han D® AV, Terminal block connector, Right hand version, Single contour (SK), Screw termination, Contact surface: Silver plated</p> 	0.2 ... 2.5	09 21 064 4612	09 21 064 4712	
				
				

## Features

- Easy mounting direct adjacent to terminal block connector Han D<sup>®</sup> AV
- By using of fixing elements mountable on standard rails
- Screw termination with wire protection

## Technical characteristics

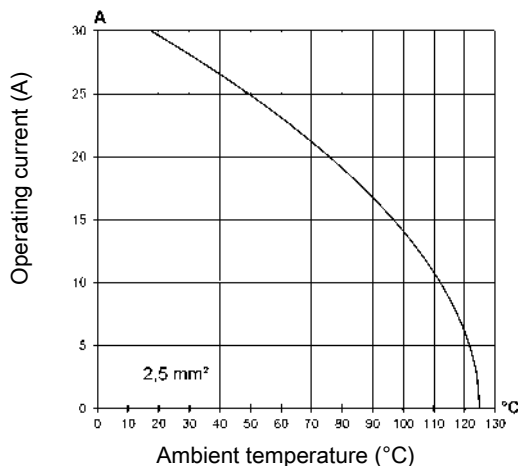
Rated current	16 A
Rated voltage conductor-earth	400 V
Rated voltage conductor-conductor	690 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Limiting temperature	-40 ... +125 °C
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	not compliant, compliant

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076

## Details

Stripping length 8 ... 11 mm

Tightening torque 0.5 Nm

### Identification

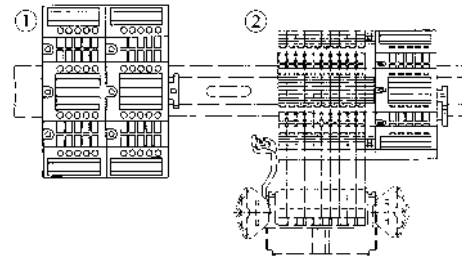
The individual terminals have the same identification as on the mating face. In addition each circuit may be separately labelled with identification strips fitted in the adjacent slots.

### Identification strips

Multi contour (MK) the following identification strips may be used

- HARTING – 09 21 000 9971
- Murrplastik – KPX 5/10-5
- Phoenix – 4 K – DST 5
- Phoenix – ZB 5
- Phoenix – DS 5

### Mounting example



- ① Distributor On standard rail
- ② Distributor With terminal block connector Han D<sup>®</sup> AV

16 A 400/690 V 6 kV 3

Han  
AV



Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	Drawing (dimensions in mm)
Han D <sup>®</sup> AV, Distributor, 20 termination points, Screw termination, Contact surface: Tin plated, Optionally mountable to terminal block connectors	0.2 ... 2.5	09 42 020 0111	
Han D <sup>®</sup> AV, Distributor, 2 x 10 termination points, Screw termination, Contact surface: Tin plated, Optionally mountable to terminal block connectors	0.2 ... 2.5	09 42 020 0121	
Han D <sup>®</sup> AV, Distributor, 4 x 4 termination points, Screw termination, Contact surface: Tin plated, Optionally mountable to terminal block connectors	0.2 ... 2.5	09 42 020 0131	



## Features

- for left or right hand applications available
- PE and connecting terminal for contact no.1 are at the top in both types of installation
- Mountable in standard bulkhead mounted housings and on standard rails by using of fixing elements
- Screw termination with wire protection

## Technical characteristics

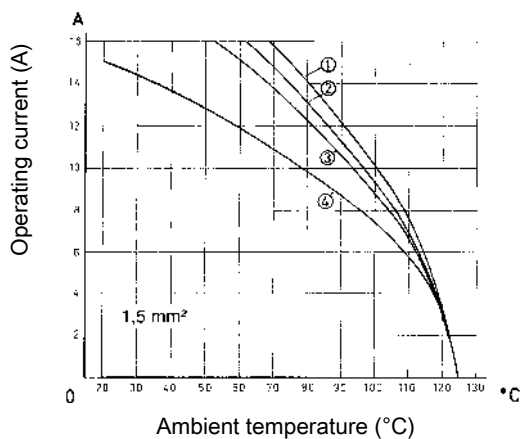
Number of contacts	6, 10, 16, 24
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 4 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

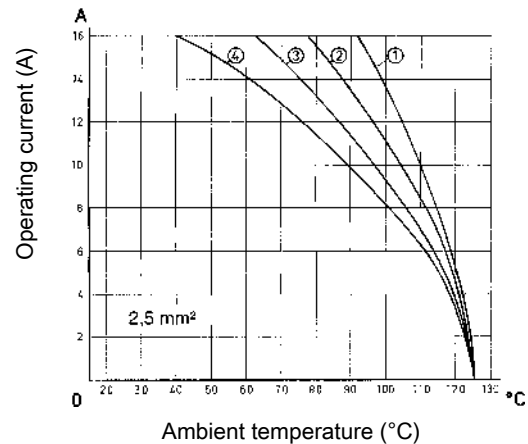
The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Han® 6 E AV
- ② Han® 10 E AV
- ③ Han® 16 E AV
- ④ Han® 24 E AV

## Derating



- ① Han® 6 E AV
- ② Han® 10 E AV
- ③ Han® 16 E AV
- ④ Han® 24 E AV

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
DNV GL

## Details

Stripping length 8 ... 11 mm

Tightening torque 0.5 Nm

### Identification

The individual terminals have the same identification as on the mating face. In addition each circuit may be separately labelled with identification strips fitted in the adjacent slots.

### Identification strips

Multi contour (MK) the following identification strips may be used

- ◆ HARTING 6 x 10 – 09 33 000 9971
- ◆ Murrplastik – KPX 6 / 10
- ◆ Weidmüller – DEK 6.5
- ◆ Phoenix – 4 K – DST 6

Single contour (SK) the following identification strips may be used

- ◆ Murrplastik – KWI 6/10
- ◆ Wieland – 9705 A/6.7


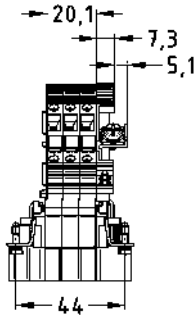
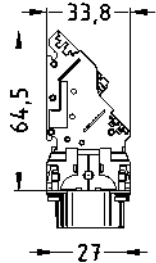

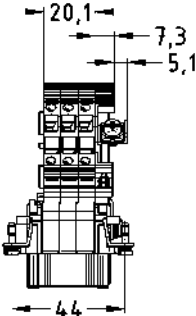
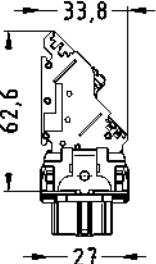
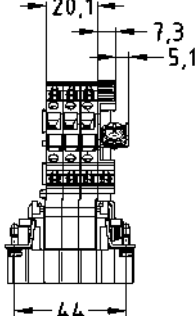
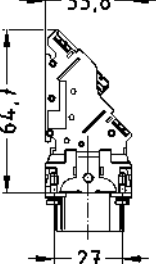
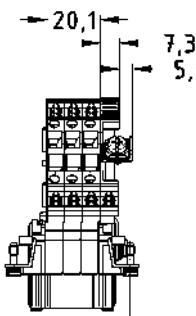
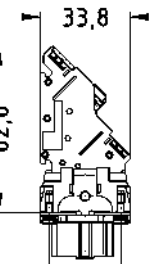
Number of contacts

# 6+

16 A 500 V 6 kV 3

Han  
AV

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)	
		Male	Female		
<p>Han E<sup>®</sup> AV, Terminal block connector, Left hand version, Multi contour (MK), Screw termination, Contact surface: Silver plated</p>	0.2 ... 2.5	09 33 006 4625	09 33 006 4725		
<p>Han E<sup>®</sup> AV, Terminal block connector, Left hand version, Single contour (SK), Screw termination, Contact surface: Silver plated</p>	0.2 ... 2.5	09 33 006 4626	09 33 006 4726		
<p>Han E<sup>®</sup> AV, Terminal block connector, Left hand version, Single contour (SK), Screw termination, Contact surface: Silver plated</p>	0.2 ... 2.5	09 33 006 4626	09 33 006 4726		
<p>Han E<sup>®</sup> AV, Terminal block connector, Left hand version, Single contour (SK), Screw termination, Contact surface: Silver plated</p>	0.2 ... 2.5	09 33 006 4626	09 33 006 4726		

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)	
		Male	Female		
<p>Han E® AV, Terminal block connector, Right hand version, Multi contour (MK), Screw termination, Contact surface: Silver plated</p> 	0.2 ... 2.5	09 33 006 4635	09 33 006 4735		
<p>Han E® AV, Terminal block connector, Right hand version, Single contour (SK), Screw termination, Contact surface: Silver plated</p> 	0.2 ... 2.5	09 33 006 4636	09 33 006 4736		
					
					


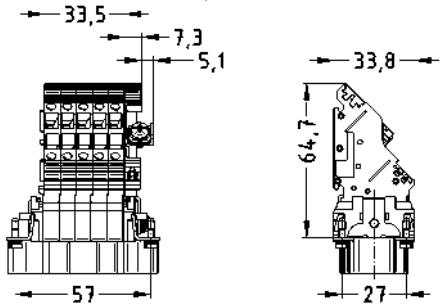

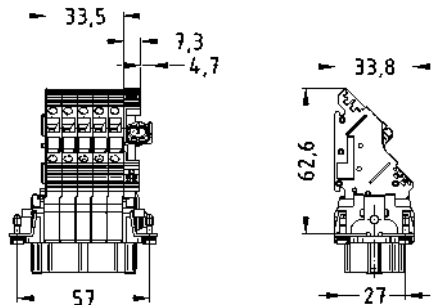
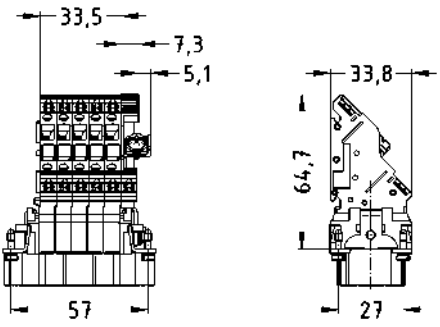
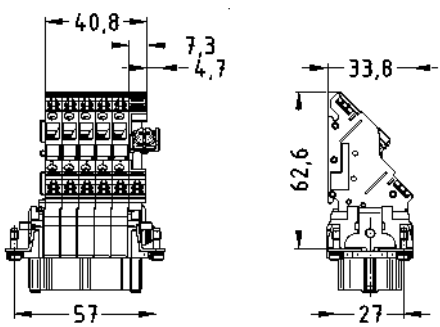
Number of contacts

# 10+

16 A 500 V 6 kV 3

Han  
AV

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)	
		Male	Female		
<p>Han E<sup>®</sup> AV, Terminal block connector, Left hand version, Multi contour (MK), Screw termination, Contact surface: Silver plated</p>	0.2 ... 2.5	09 33 010 4625	09 33 010 4725		
<p>Han E<sup>®</sup> AV, Terminal block connector, Left hand version, Single contour (SK), Screw termination, Contact surface: Silver plated</p>	0.2 ... 2.5	09 33 010 4626	09 33 010 4726		

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han E® AV, Terminal block connector, Right hand version, Multi contour (MK), Screw termination, Contact surface: Silver plated</p> 	0.2 ... 2.5	09 33 010 4635	09 33 010 4735	
<p>Han E® AV, Terminal block connector, Right hand version, Single contour (SK), Screw termination, Contact surface: Silver plated</p> 	0.2 ... 2.5	09 33 010 4636	09 33 010 4736	
				
				

Number of contacts

16+

16 A 500 V 6 kV 3

Han AV

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)	
		Male	Female		
<p>Han E® AV, Terminal block connector, Left hand version, Multi contour (MK), Screw termination, Contact surface: Silver plated</p>	0.2 ... 2.5	09 33 016 4625	09 33 016 4725		
<p>Han E® AV, Terminal block connector, Left hand version, Single contour (SK), Screw termination, Contact surface: Silver plated</p>	0.2 ... 2.5	09 33 016 4626	09 33 016 4726		
<p>Han E® AV, Terminal block connector, Left hand version, Single contour (SK), Screw termination, Contact surface: Silver plated</p>	0.2 ... 2.5	09 33 016 4626	09 33 016 4726		
<p>Han E® AV, Terminal block connector, Left hand version, Single contour (SK), Screw termination, Contact surface: Silver plated</p>	0.2 ... 2.5	09 33 016 4626	09 33 016 4726		

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)	
		Male	Female		
Han E® AV, Terminal block connector, Right hand version, Multi contour (MK), Screw termination, Contact surface: Silver plated	0.2 ... 2.5	09 33 016 4635	09 33 016 4735		
Han E® AV, Terminal block connector, Right hand version, Single contour (SK), Screw termination, Contact surface: Silver plated	0.2 ... 2.5	09 33 016 4636	09 33 016 4736		

Han AV

Number of contacts


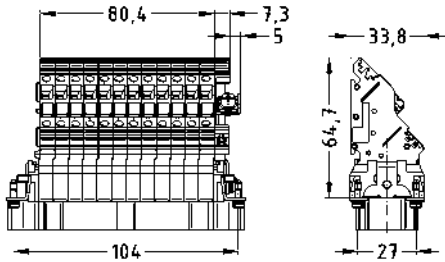

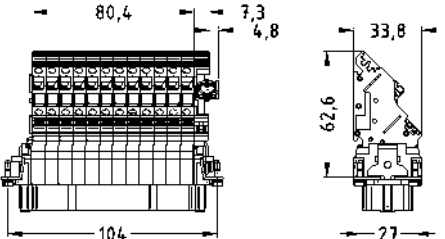

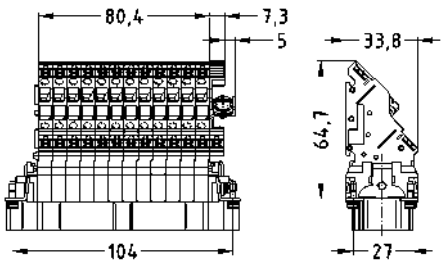

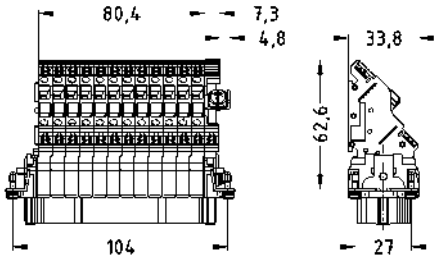
# 24+

16 A 500 V 6 kV 3

Han  
AV

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han E<sup>®</sup> AV, Terminal block connector, Left hand version, Multi contour (MK), Screw termination, Contact surface: Silver plated</p>	0.2 ... 2.5	09 33 024 4625	09 33 024 4725	
<p>Han E<sup>®</sup> AV, Terminal block connector, Left hand version, Single contour (SK), Screw termination, Contact surface: Silver plated</p>	0.2 ... 2.5	09 33 024 4626	09 33 024 4726	
<p>Han E<sup>®</sup> AV, Terminal block connector, Left hand version, Single contour (SK), Screw termination, Contact surface: Silver plated</p>	0.2 ... 2.5	09 33 024 4626	09 33 024 4726	



Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han E® AV, Terminal block connector, Right hand version, Multi contour (MK), Screw termination, Contact surface: Silver plated</p> 	0.2 ... 2.5	09 33 024 4635	09 33 024 4735	
<p>Han E® AV, Terminal block connector, Right hand version, Single contour (SK), Screw termination, Contact surface: Silver plated</p> 	0.2 ... 2.5	09 33 024 4636	09 33 024 4736	
<p>Han E® AV, Terminal block connector, Right hand version, Single contour (SK), Screw termination, Contact surface: Silver plated</p> 	0.2 ... 2.5	09 33 024 4636	09 33 024 4736	
<p>Han E® AV, Terminal block connector, Right hand version, Single contour (SK), Screw termination, Contact surface: Silver plated</p> 	0.2 ... 2.5	09 33 024 4636	09 33 024 4736	

## Features

- for left or right hand applications available
- PE and connecting terminal for contact no.1 are at the top in both types of installation
- Mountable in standard bulkhead mounted housings and on standard rails by using of fixing elements
- Reliable cage clamp termination

## Technical characteristics

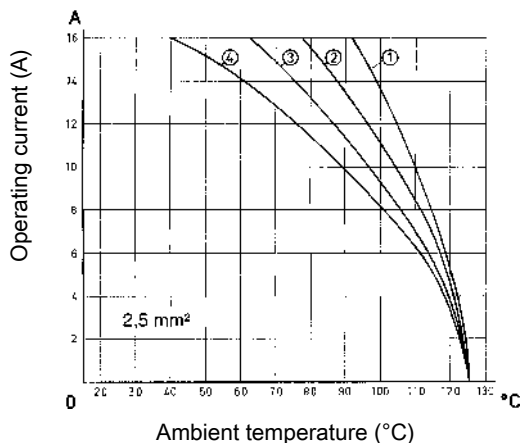
Number of contacts	6, 10, 16, 24
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated current acc. to UL	12 A
Rated current acc. to CSA	12 A
Rated voltage acc. to UL	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤4 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

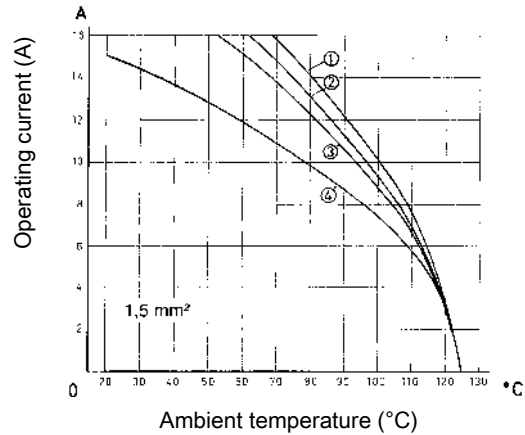
The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Han® 6 ES AV
- ② Han® 10 ES AV
- ③ Han® 16 ES AV
- ④ Han® 24 ES AV

## Derating



- ① Han® 6 ES AV
- ② Han® 10 ES AV
- ③ Han® 16 ES AV
- ④ Han® 24 ES AV

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
DNV GL

## Details

Stripping length 8 ... 11 mm

### Identification

The individual terminals have the same identification as on the mating face. In addition each circuit may be separately labelled with identification strips fitted in the adjacent slots.

### Identification strips

Single contour (SK) the following identification strips may be used

- ◆ HARTING – 09 33 000 9973 (6 x 15)
- ◆ Murrplastik – KWI 6/15
- ◆ Wieland – 9705 A/6.7

Number of contacts

6+

16 A 500 V 6 kV 3

Han AV


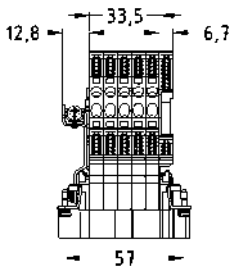
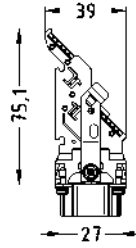
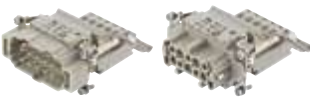
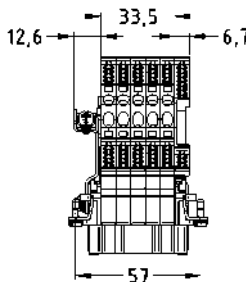
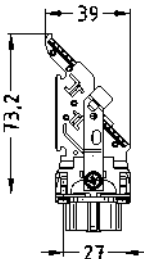
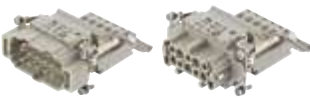
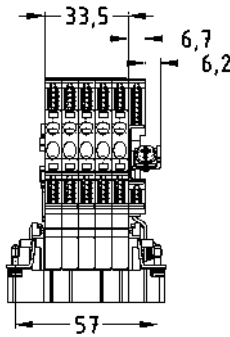
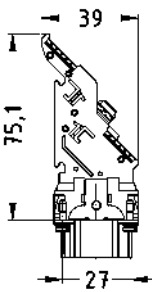
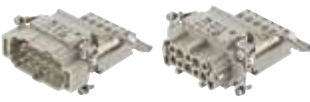
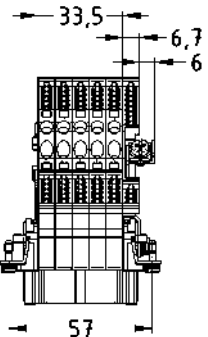
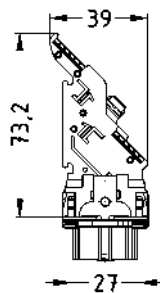
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)	
		Male	Female		
<p>Han® ES AV, Terminal block connector, Left hand version, Single contour (SK), Cage-clamp termination, Contact surface: Silver plated</p>	0.14 ... 2.5	09 33 006 4629	09 33 006 4729		
<p>Han® ES AV, Terminal block connector, Right hand version, Single contour (SK), Cage-clamp termination, Contact surface: Silver plated</p>	0.14 ... 2.5	09 33 006 4639	09 33 006 4739		

Number of contacts

10+

16 A 500 V 6 kV 3

Han AV

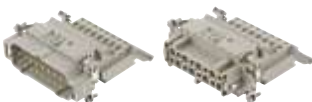
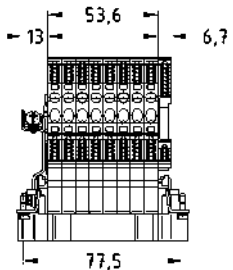
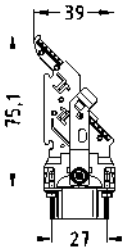
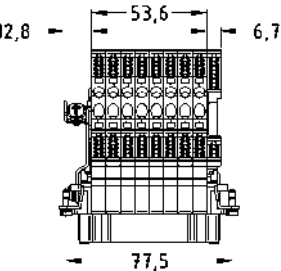
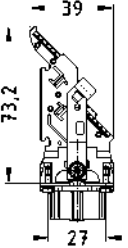

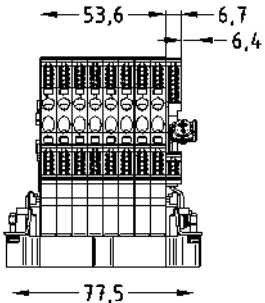
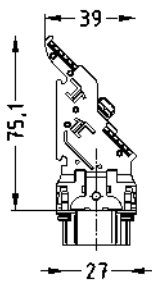
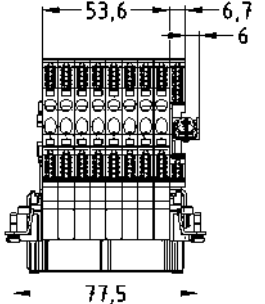
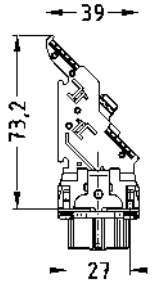
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)	
		Male	Female		
<p>Han® ES AV, Terminal block connector, Left hand version, Single contour (SK), Cage-clamp termination, Contact surface: Silver plated</p> 	0.14 ... 2.5	09 33 010 4629	09 33 010 4729		
<p>Han® ES AV, Terminal block connector, Right hand version, Single contour (SK), Cage-clamp termination, Contact surface: Silver plated</p> 	0.14 ... 2.5	09 33 010 4639	09 33 010 4739		
<p>Han® ES AV, Terminal block connector, Right hand version, Single contour (SK), Cage-clamp termination, Contact surface: Silver plated</p> 	0.14 ... 2.5	09 33 010 4639	09 33 010 4739		
<p>Han® ES AV, Terminal block connector, Right hand version, Single contour (SK), Cage-clamp termination, Contact surface: Silver plated</p> 	0.14 ... 2.5	09 33 010 4639	09 33 010 4739		

Number of contacts

16+

16 A 500 V 6 kV 3

Han AV

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)	
		Male	Female		
Han® ES AV, Terminal block connector, Left hand version, Single contour (SK), Cage-clamp termination, Contact surface: Silver plated 	0.14 ... 2.5	09 33 016 4629	09 33 016 4729		
					
Han® ES AV, Terminal block connector, Right hand version, Single contour (SK), Cage-clamp termination, Contact surface: Silver plated 	0.14 ... 2.5	09 33 016 4639	09 33 016 4739		
					

Number of contacts

24+

16 A 500 V 6 kV 3

Han  
AV

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® ES AV, Terminal block connector, Left hand version, Single contour (SK), Cage-clamp termination, Contact surface: Silver plated</p>	0.14 ... 2.5	09 33 024 4629	09 33 024 4729	
<p>Han® ES AV, Terminal block connector, Right hand version, Single contour (SK), Cage-clamp termination, Contact surface: Silver plated</p>	0.14 ... 2.5	09 33 024 4639	09 33 024 4739	

### Technical characteristics

RoHS compliant

### Details

There are moulded slots at the rear of the terminal block connectors and distributors to accept the fixing elements. When used these elements, for example, can be used to secure the connectors inside the switch cabinets on standard rails.

### Details

**For mounting**

Terminal block connector Han E® AV / Han® ES AV


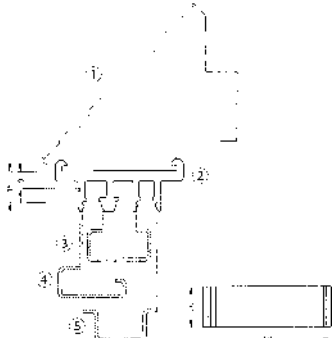

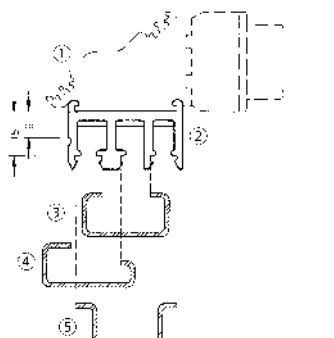
Han® 6 E AV, Han® 6 ES AV = 1 fixing element

Han® 10/16/24 E AV, Han® 10/16/24 ES AV = 2 fixing elements

Terminal block connector Han D® AV


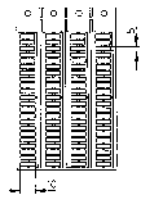

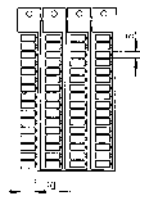

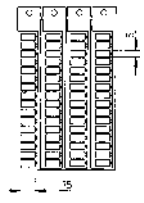

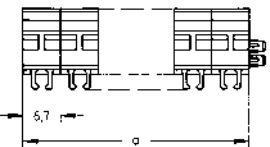
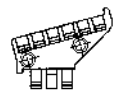
Han® 40/64 D AV = 2 fixing elements

Distributor = 1 fixing element

Identification	Part number	Drawing (dimensions in mm)
<p>Han D® AV, Han D® AV Distributor, Fixing element</p> 	<p>09 33 000 9928</p>	 <ul style="list-style-type: none"> <li>① Terminal block connector Han D® AV</li> <li>② Fixing element</li> <li>③ C-rail IEC 60715-C30</li> <li>④ G-rail IEC 60715-G32</li> <li>⑤ Rail IEC 60715-35 x 7.5 or -35 x 15</li> </ul>
<p>Han E® AV, Han® ES AV, Fixing element</p> 	<p>09 33 000 9929</p>	 <ul style="list-style-type: none"> <li>① Terminal block connector Han E® AV</li> <li>② Fixing element</li> <li>③ C-rail IEC 60715-C30</li> <li>④ G-rail IEC 60715-G32</li> <li>⑤ Rail IEC 60715-35 x 7.5 or -35 x 15</li> </ul>

## Technical characteristics

RoHS compliant

Identification	Part number	Drawing (dimensions in mm)
<p>Han D® AV, Identification strip, Multi contour (MK), Pack contents: 88 pieces in one block</p> 	09 21 000 9971	
<p>Han E® AV, Identification strip, Multi contour (MK), Pack contents: 64 pieces in one block</p> 	09 33 000 9971	
<p>Han® ES AV, Identification strip, Single contour (SK), Pack contents: 64 pieces in one block</p> 	09 33 000 9973	
<p>Adapter, To fit identification strips, Single contour (SK), Fixing on terminal block connector</p> 	<p>09 33 000 9964 09 33 000 9965 09 33 000 9966 09 33 000 9967</p>	  <p>09 33 000 9964 Han® 6 E AV a = 26.8 mm 09 33 000 9965 Han® 10 E AV a = 40.2 mm 09 33 000 9966 Han® 16 E AV a = 60.3 mm 09 33 000 9967 Han® 24 E AV a = 87.4 mm</p>



Contents	Page
Latching parts .....	<b>Han 11.3</b>
Plastic panel mounting .....	<b>Han 11.5</b>
Metal panel mounting .....	<b>Han 11.6</b>
Insert mounting.....	<b>Han 11.7</b>
Insert mounting with carrier element .....	<b>Han 11.8</b>
Shell housing .....	<b>Han 11.10</b>
Accessories .....	<b>Han 11.15</b>

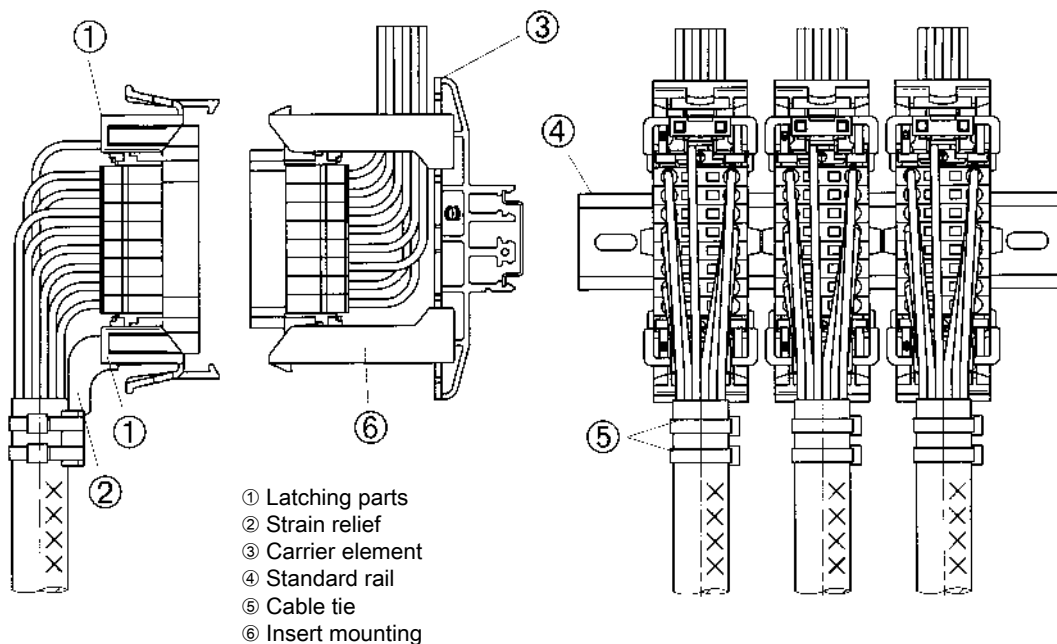
**Note:**

A connector mounted with Han-Snap® elements does not offer finger safe protection to the relevant standards. In this case protection against electric shock must be provided by the installation methods of the user. The fixing of the PE terminal must be conducted on equal side of the connector insert to avoid ground interruptions.

- The Han-Snap® system is ideal for connectors within closed electrical operating environments. These can be rooms, cabinets or termination boxes.
- The Han-Snap® components are an innovative design which offer the following advantages and characteristics:
  - reduction of material and assembly costs;
  - fast and easy installation;
  - preassembly of Han connectors;
  - secure and rigid mounting of Han connectors;
  - frequent use of latching systems is possible (up to several thousand cycles).
- The Han-Snap® elements are compatible with the standard inserts and terminal block connectors of the following series (named series Han B as follows)
  - Han D®, 40 and 64 pins
  - Han DD®
  - Han E®
  - Han® EE
  - Han® EEE
  - Han® ES
  - Han Hv E®
  - Han® Hv ES
  - Han® HsB
  - Han-Com® (except Han® K 4/4)
  - Han-Modular®

- With the Han-Snap® adapter the following standard inserts are compatible (named series Han A as follows):
  - Han D®, 15 and 25 pins
  - Han A®, 10 and 16 pins
- The Han-Snap® elements are a mechanical system for the mounting assembly and security of Han connectors. Normally the elements are assembled to the connector insert using the standard insert fixing screws. If coding is required the standard fixing screws may be replaced by either code pins or guide pins and bushes.
- On free connectors the wires or cables can be secured to the strain relief element with standard cable ties of 5 mm width maximum.

## Han-Snap® on standard rail





## Features

- Compact design saves space
- Practical and easy handling
- Reduction of material and assembly costs

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP20
Retention force	200 N Without guiding, 300 N With guiding
Material (accessories)	Polycarbonate (PC)
Colour (accessories)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Specifications and approvals

IEC 60068-2-6 Vibration (sinusoidal)  
IEC 60068-2-27 Shock

## Details

Inserts can be mounted on the panel mounting part and the latching part with the standard insert mounting screws.

High mechanical security of the fixings.

No functional impairment is caused by slight over tightening of the fixing screws.

Alternatively, Han® coding elements (code pins or guide pins and bushes) may be used.

Label 9 x 20 mm may be fitted in both sides of each latching element. Label 7 x 20 mm may be fitted to the top of the latching part without the strain relief element.

Up to 2 cable ties with max. 5 mm width can be used on the strain relief.

Please note: The strain relief element should be assembled to the latching part at the end of the insert opposite to the ground screw.

### Identification

Han-Snap®,  
Latching parts,  
IP20

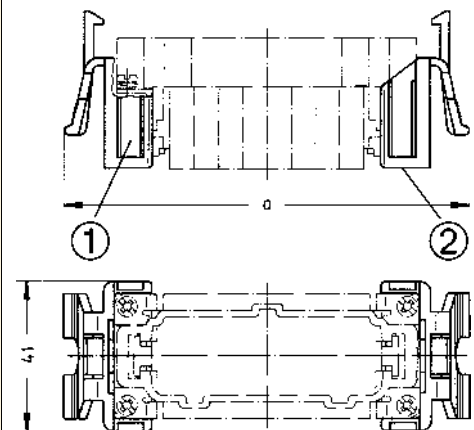
Pack contents:  
2 latching parts



### Part number

09 33 000 9987


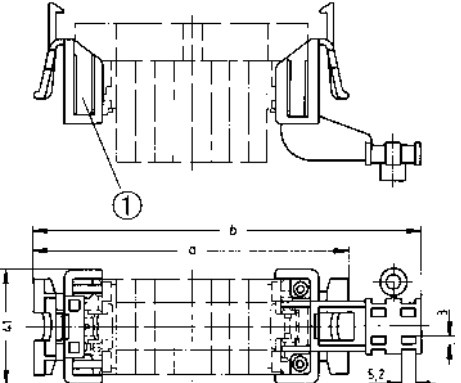

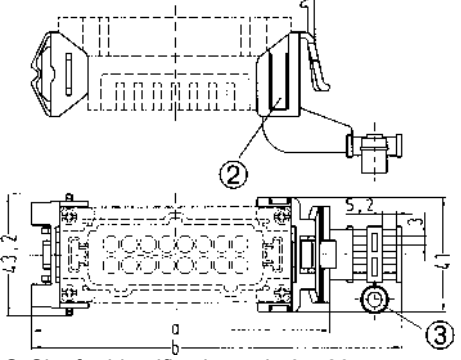
### Drawing (dimensions in mm)



① Slot for identification strip 9 x 20  
② Slot for identification strip 7 x 20

6 B: a= 78.5  
10 B: a= 91.5  
16 B: a= 112.5  
24 B: a= 138.5

Han-Snap

Identification	Part number	Drawing (dimensions in mm)
<p>Han-Snap®, Latching parts, With strain relief, IP20</p> <p>Pack contents: 1 latching part with strain relief, 1 latching part</p> 	<p>09 33 000 9991</p>	 <p>① Slot for identification strip 9 x 20          6 B: a=78,5; b=105          10 B: a=91,5; b=118          16 B: a=112,5; b=138,5          24 B: a=138,5; b=165</p>
<p>Han-Snap®, Latching parts, With strain relief, and panel mounting parts, IP20</p> <p>Pack contents: 1 latching part with strain relief, 1 panel mounting part</p> 	<p>09 33 000 9990</p>	 <p>② Slot for identification strip 9 x 20          ③ Distance bush          6 B: a=75; b=101          10 B: a=88; b=114          16 B: a=108,5; b=134,5          24 B: a=135; b=161</p>



## Features

- Snap element for sheet-metal cut out
- Compact design saves space
- Practical and easy handling
- Reduction of material and assembly costs

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Retention force	≥250 N in the sheet-metal cut out
Material (accessories)	Polycarbonate (PC)
Colour (accessories)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Specifications and approvals

IEC 60068-2-6 Vibration (sinusoidal)  
IEC 60068-2-27 Shock

## Details

Connector inserts and terminal block connectors can be fixed on elements for panel mounting with standard insert mounting screws.

High mechanical security of the fixings. No functional impairment is caused by slight over tightening of the fixing screws.

Alternatively, Han® coding elements (code pins or guide pins and bushes) may be used.

Connector assembly into the panel (sheet-metal) cut out or two parallel mounted rails is possible from mating or termination side.

### Identification

Han-Snap®,  
Panel mounting parts,  
Pack contents:  
2 plastic panel mounting parts sufficient for one insert or terminal block connector

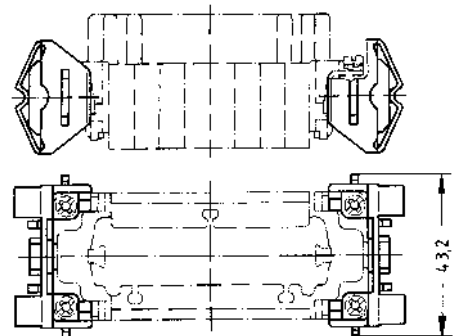


Size 10 A / 16 A by using the corresponding adapter!

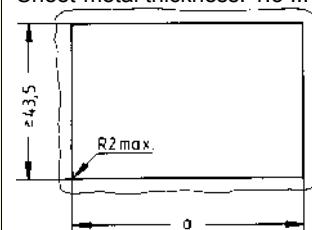
### Part number

09 33 000 9985

### Drawing (dimensions in mm)



Panel cut out  
Sheet-metal thickness: 1.3 ... 3 mm



- 6 B:  $a^{+0.5} = 65$
- 10 B:  $a^{+0.5} = 78$
- 16 B:  $a^{+0.5} = 98$
- 24 B:  $a^{+0.5} = 125$
- 10 A:  $a^{+0.5} = 81,5$
- 16 A:  $a^{+0.5} = 98$



## Features

- Snap element for sheet-metal cut out
- Compact design saves space
- Practical and easy handling
- Reduction of material and assembly costs

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Material (accessories)	Zinc die-cast
RoHS	compliant

## Specifications and approvals

IEC 60068-2-6 Vibration (sinusoidal)  
IEC 60068-2-27 Shock

## Details

Connector inserts and terminal block connectors can be fixed on elements for panel mounting with standard insert mounting screws.

High mechanical security of the fixings.

Alternatively, Han® coding elements (code pins or guide pins and bushes) may be used.

Connector assembly into the panel (sheet-metal) cut out or two parallel mounted rails is possible from mating or termination side.

### Identification

Han-Snap®,  
Panel mounting parts,

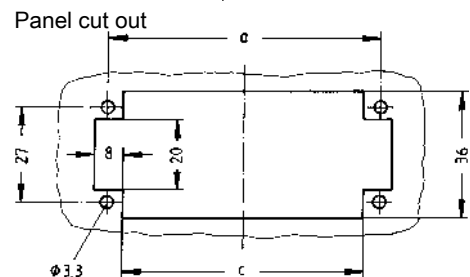
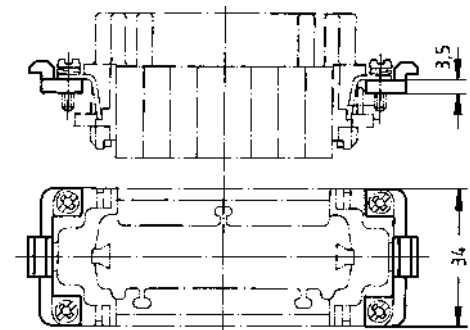
Pack contents:  
2 metallic panel mounting parts sufficient for one insert or terminal block connector



### Part number

09 33 000 9984

### Drawing (dimensions in mm)



6 B: a=44; c=36  
10 B: a=57; c=49  
16 B: a=77.5; c=69.5  
24 B: a=104; c=96



Han-Snap

## Features

- Insert is mounted with carrier element
- A practical solution to fix the insert directly on a standard rail
- Insert can be assembled to Han-Snap® element with screw-driver
- Compact design saves space

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Retention force	≥300 N On rail (tension), ≥1.000 N On rail (pressure)
Material (accessories)	Polycarbonate (PC)
Colour (accessories)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Specifications and approvals

IEC 60068-2-6 Vibration (sinusoidal)  
IEC 60068-2-27 Shock

## Details

The insert mounting locks directly on standard rail 35 x 15 or 35 x 7.5 mm.


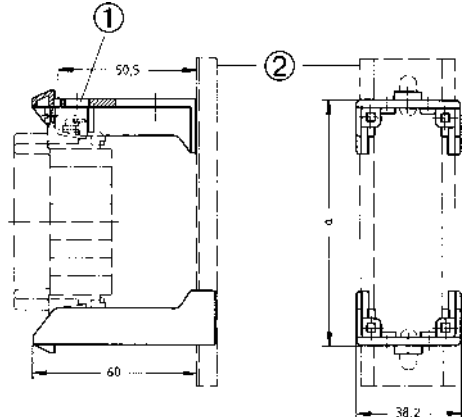
Inserts can be assembled on the insert mounting with the standard insert fixing screws.

High mechanical security of the fixings.

No functional impairment is caused by slight over tightening of the fixing screws.

Alternatively, Han® coding elements (code pins or guide pins and bushes) may be used.

The following labels may be fitted alternatively to the insert mounting parts for circuit identification purposes:  
Label 7 x 20 mm or 9 x 20 mm

Identification	Part number	Drawing (dimensions in mm)
<p>Han-Snap®, Insert mounting, Pack contents: 2 insert mounting parts</p>  <p>Size 10 A / 16 A by using the corresponding adapter!</p>	<p>09 33 000 9980</p>	 <p>① Slot for identification strip ② Rail IEC 60715-35 x 7.5 or -35 x 15 6 B: a= 57 10 B: a= 70 / 10 A: a= 74 16 B / 16 A: a= 90.5 24 B: a= 117</p>



## Features

- Insert is mounted with carrier element
- A practical solution to fix the insert directly on a standard rail
- Insert can be assembled to Han-Snap® element with screw-driver
- Compact design saves space

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Retention force	≥450 N On rail
Material (accessories)	Polycarbonate (PC)
Colour (accessories)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Specifications and approvals

IEC 60068-2-6 Vibration (sinusoidal)  
IEC 60068-2-27 Shock

## Details

The carrier element is the basic element to mount the inserts in the cross direction on standard rails, for example:

- Caprail, 35 x 7.5 or 35 x 15 acc. to DIN EN 60 715
- C-rail, C 30 acc. to DIN EN 60 715
- G-rail, G 32 acc. to DIN EN 60 715

Where vibration is likely to be encountered, use the 35 x 15 mounting rails. When using the large carrier element, the 35 x 15 mounting rails are recommended to give greater stability.

Insert mounting type 6/10 is suitable for inserts of sizes Han 6 B and Han 10 B.

Insert mounting type 6/24 is suitable for all insert sizes: Han 6 B / 10 B / 16 B / 24 B, Han 16 A with the corresponding adapter.

Inserts can be assembled to the insert mountings with the standard insert mounting screws.

High mechanical security of the fixings. No functional impairment is caused by slight over tightening of the fixing screws.

Alternatively, Han® coding elements (code pins or guide pins and bushes) may be used.

The following labels may be fitted to the insert mounting parts for circuit identification purposes:

Label 7 x 20 mm or 9 x 20 mm

Identification

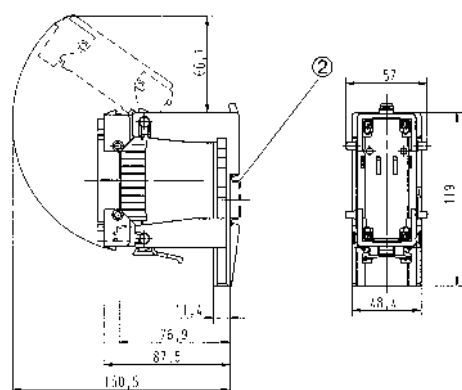
Han-Snap®,  
Insert mounting,  
Swinging,  
for standard inserts



Part number



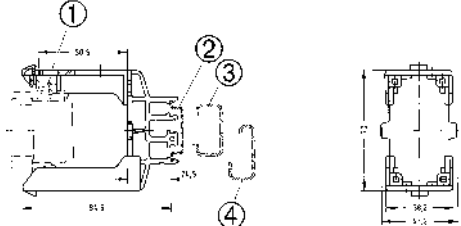

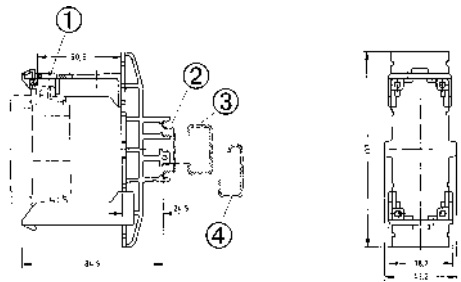
09 33 000 9801

Drawing  
(dimensions in mm)



© Rail IEC 60715-35 x 7.5 or -35 x 15



Identification	Part number	Drawing (dimensions in mm)
<p>Han-Snap®, Insert mounting, Swinging, for Han-Modular® hinged frames</p> 	<p>09 33 000 9803</p>	
<p>Han-Snap®, Insert mounting, With carrier element, Type 6/10, Pack contents: 2 insert mounting parts, 1 carrier element</p> 	<p>09 33 000 9988</p>	 <ul style="list-style-type: none"> <li>① Slot for identification strip</li> <li>② Rail IEC 60715-35 x 7.5 or -35 x 15</li> <li>③ C-rail IEC 60715-C30</li> <li>④ G-rail IEC 60715-G32</li> </ul>
<p>Han-Snap®, Insert mounting, With carrier element, Type 6/24, Pack contents: 2 insert mounting parts, 1 carrier element</p> 	<p>09 33 000 9989</p>	 <ul style="list-style-type: none"> <li>① Slot for identification strip</li> <li>② Rail IEC 60715-35 x 7.5 or -35 x 15</li> <li>③ C-rail IEC 60715-C30</li> <li>④ G-rail IEC 60715-G32</li> </ul>

## Features

- Ideal for use within closed electrical operation environments
- Allows use of preassembled cables
- Optimised cost of material and assembly
- Insert can be assembled to Han-Snap® element with screwdriver

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Retention force	≥300 N locked condition
Material (hood/housing)	Polycarbonate (PC)
Colour (hood/housing)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Specifications and approvals

IEC 60068-2-6 Vibration (sinusoidal)  
IEC 60068-2-27 Shock

## Details

2 identical half shells form a shell housing.

Each housing has 3 cable entries, one on top and one at each end. 2 x cable entries can be closed by enclosed blind plugs.

In the area of cable entries there are rectangular openings for mounting of cable ties up to max. 5 mm width.

In the mating area both housing shells are fixed by the standard insert fixing screws.

To release the half shells use screw driver (3.5 x 0.5).

Alternatively, Han® coding elements (code pins or guide pins and bushings) may be used.

High mechanical security of the fixings.

No functional impairment is caused by slight over tightening of the fixing screws. The blind plugs have slots for identification strips.

The following labels can be fitted: label 7 x 20 mm or 9 x 20 mm


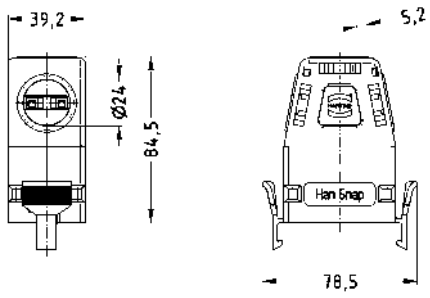

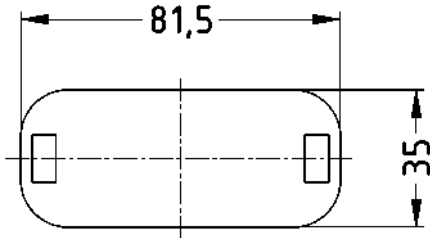
Size 16 A by using the corresponding adapter

Inserts can be assembled to the adapters with the standard insert fixing screws.

With the included screws the adapter can be fixed to the selected Han-Snap® element.

Snap-in latches

Han-Snap

Identification	Part number	Drawing (dimensions in mm)
<p>Han-Snap®, Shell housing, Top/side entry, Pack contents: 2 half shells with blind plugs</p> 	<p>09 33 006 0401</p>	
<p>Han-Snap®, Protection cover, Thermoplastic</p> 	<p>09 33 006 5401</p>	

Snap-in latches

Han-Snap

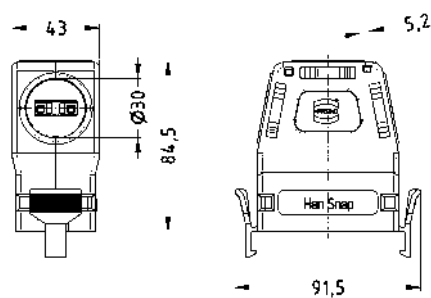
Identification

Part number

Drawing  
(dimensions in mm)

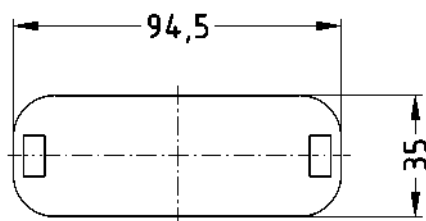
Han-Snap®,  
Shell housing,  
Top/side entry,  
Pack contents:  
2 half shells with blind plugs

09 33 010 0401




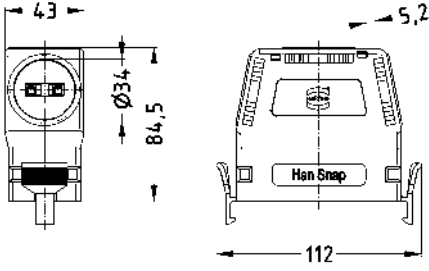

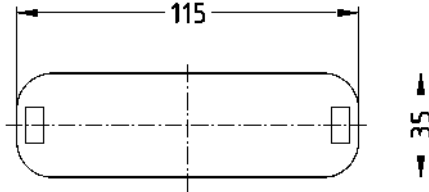
Han-Snap®,  
Protection cover,  
Thermoplastic

09 33 010 5401



Snap-in latches

Han-Snap

Identification	Part number	Drawing (dimensions in mm)
<p>Han-Snap®, Shell housing, Top/side entry, Pack contents: 2 half shells with blind plugs</p>  <p>Size 16 A by using the corresponding adapter!</p>	<p>09 33 016 0401</p>	
<p>Han-Snap®, Protection cover, Thermoplastic</p> 	<p>09 33 016 5401</p>	

Snap-in latches

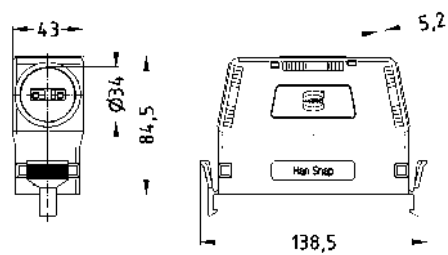
Han-Snap

Identification	Part number	Drawing (dimensions in mm)
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Han-Snap®,  
Shell housing,  
Top/side entry,  
Pack contents:  
2 half shells with blind plugs



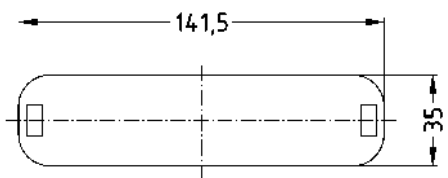
09 33 024 0401



Han-Snap®,  
Protection cover,  
Thermoplastic


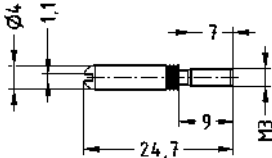
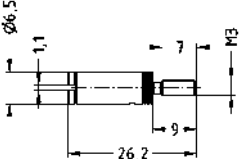
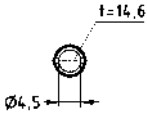

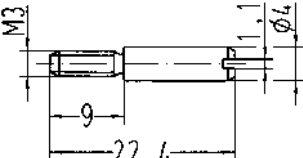
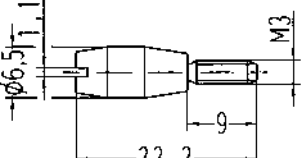
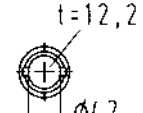


09 33 024 5401



## Technical characteristics

RoHS compliant with exemption


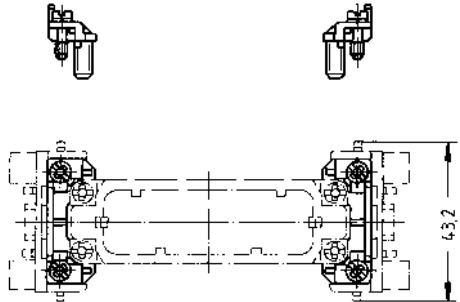

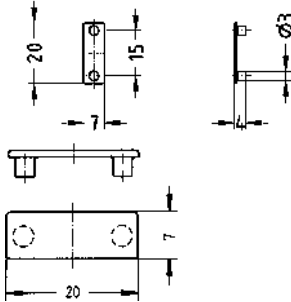

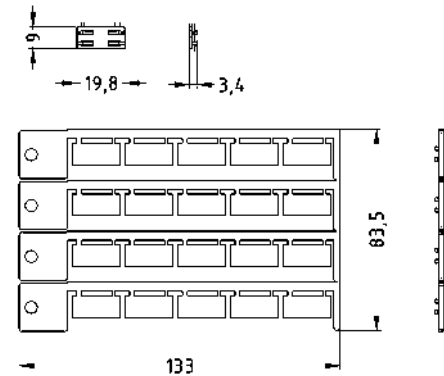
Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
<p>Coding, With guide pins/bushes, for application "insert with screw adapter" with/ without grip frame</p> 	09 33 000 9808	09 33 000 9809	  
<p>Han-Snap®, Coding, Only for swinging insert mountings</p> 	09 33 000 9956	09 33 000 9957	  

## Technical characteristics

Material (accessories) Polycarbonate (PC)

## Technical characteristics

Colour (accessories) RAL 7032 (pebble grey)  
RoHS compliant

Identification	Part number	Drawing (dimensions in mm)
<p>Han A®, Adapter, Pack contents: 2 adapters, 4 fixing screws</p> 	09 20 000 9933	
<p>Han-Snap®, Identification strip</p> 	09 33 000 9981	
<p>Han-Snap®, Identification strip, Pack contents: 20 pieces in one block</p> 	09 33 000 9982	



Contents

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Sockets.....

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Wires .....

Gender changer.....

Accessories .....

**Han 12.2**

**Han 12.6**

**Han 12.10**

**Han 12.15**

**Han 12.18**

**Han 12.19**

## Features

- Sockets for the European and international market
- Modular assembly
- Sockets to mount or snap into mounting plates
- Application with socket and data connector (RJ45, USB)
- Compact design for easy installation in single or double frame
- Suitable for data module in HIFF-size
- Screening shield to optimise EMC protection

## Technical characteristics







Mounting depth	62 mm, 30 mm, 20 mm, 43 mm
Supply voltage	250 V AC, 125 V AC, 240 V AC
Nominal frequency	50 Hz, 60 Hz
Nominal current	16 A, 15 A, 13 A, 5 A, 10 A
Material (hood/housing)	Thermoplastic
RoHS	compliant, compliant with exemption

## Specifications and approvals















## Details

for detailed technical characteristics see following pages

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	
Han-Port®, Socket, With LED display, Termination at the rear, Screw termination, Germany (VDE), 62 mm / 250 V AC / 50 Hz / 16 A	6	39 50 001 0001	
Han-Port®, Socket, for assembly in front of main switch, Termination at the rear, Screw termination, Germany (VDE), 62 mm / 250 V AC / 50 Hz / 16 A	6	39 50 001 0002	
Han-Port®, Socket, Finger safe, Screw termination, USA, Japan, 30 mm / 125 V AC / 60 Hz / 15 A	2.5	39 50 001 0004	
Han-Port®, Socket, With LED display, Termination at the rear, Screw termination, France (UTE), 62 mm / 250 V AC / 50 Hz / 16 A	6	39 50 001 0005	
Han-Port®, Socket, Finger safe, Screw termination, Great Britain (BS), 30 mm / 250 V AC / 60 Hz, 50 Hz / 13 A	4	39 50 001 0006	
Han-Port®, Socket, Double, Finger safe, Screw termination, Italy (CEI 23-16), 20 mm / 250 V AC / 50 Hz / 16 A	2.5	39 50 001 0007	

Han-Port

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	
Han-Port®, Socket, Screw termination, Australia, China, 20 mm / 240 V AC / 60 Hz, 50 Hz / 15 A	4	39 50 001 0009	
Han-Port®, Socket, Screw termination, India (IS), 20 mm / 240 V AC / 50 Hz / 6 A	4	39 50 001 0321	
Han-Port®, Socket, Screw termination, Brazil, 30 mm / 250 V AC / 60 Hz / 10 A	2.5	39 50 001 0331	
Han-Port®, Socket, Screw termination, Israel, 30 mm / 250 V AC / 50 Hz / 16 A	2.5	39 50 001 0333	
Han-Port®, Socket, Spring clamp termination, Switzerland, 30 mm / 250 V AC / 50 Hz / 10 A	1.5	39 50 001 0012	
Han-Port®, Socket, Spring clamp termination, Denmark, 20 mm / 250 V AC / 50 Hz / 13 A	2.5	39 50 001 0017	

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	
Han-Port®, Socket, 2 cut-outs for HIFF data module, Finger safe, Screw termination, Great Britain (BS), 30 mm / 250 V AC / 60 Hz, 50 Hz / 13 A	4	39 50 001 0452	
Han-Port®, Socket, 2 cut-outs for HIFF data module, Screw termination, China, 43 mm / 250 V AC / 50 Hz / 10 A	4	39 50 001 0458	
Han-Port®, Socket, Screw termination, China, 43 mm / 250 V AC / 50 Hz / 10 A 1x RJ45 Cat.6 / 1x USB-A 3.0, enclosed separately	4	39 50 012 0458	
Han-Port®, Socket, 2 cut-outs for HIFF data module, Spring clamp termination, Germany (VDE), 43 mm / 250 V AC / 50 Hz / 16 A	2.5	39 50 001 0450	
Han-Port®, Socket, 2 cut-outs for HIFF data module, Spring clamp termination, Switzerland, 30 mm / 250 V AC / 50 Hz / 10 A	1.5	39 50 001 0454	
Han-Port®, Socket, Spring clamp termination, Germany (VDE), 43 mm / 250 V AC / 50 Hz / 16 A 1x RJ45 Cat.6 / 1x USB-A 3.0, enclosed separately	2.5	39 50 012 0450	

## Features

- Suitable for rough industrial environments (degree of protection IP65 with closed cover)
- Modular assembly
- Various mounting plates with sockets and data interfaces available

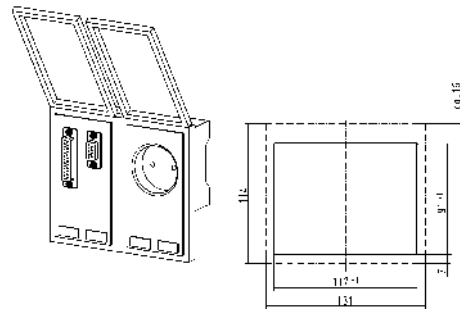
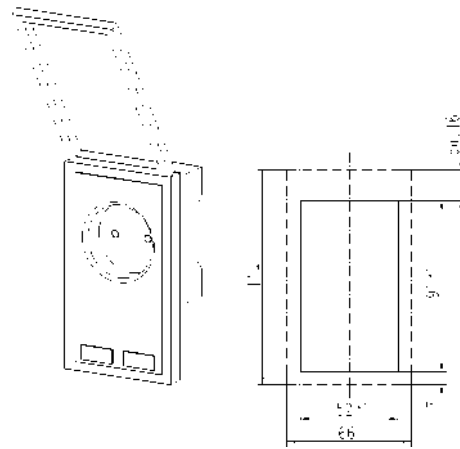
## Technical characteristics





Limiting temperature	-10 ... +60 °C
Storage temperature	-25 ... +60 °C
Degree of protection acc. to IEC 60529	IP65
Material (hood/housing)	Thermoplastic, Zinc die-cast
Surface (hood/housing)	Smoothed surface
RoHS	compliant

## Specifications and approvals

UL 508 NITW2.E472460  
 CSA-C22.2 No. 14-95 NITW8.E472460

## Details



Identification	Part number	
Han-Port®, Frames, Single, Plastic version, PBT black, Plastic cover, PC transparent, IP65	39 50 000 0300	
Han-Port®, Frames, Double, Plastic version, PBT black, Plastic cover, PC transparent, IP65	39 50 000 0400	
Han-Port®, Frames, Single, Plastic version, PBT black, Plastic cover, ABS metallic silver, IP65	39 50 000 0320	
Han-Port®, Frames, Double, Plastic version, PBT black, Plastic cover, ABS metallic silver, IP65	39 50 000 0420	

Identification

Part number

Han-Port®,  
Frames,  
Single,  
Metal version, nickel plated (electrically conductive),  
Transparent plastic cover,  
IP65

39 50 000 0100






Han-Port®,  
Frames,  
Double,  
Metal version, nickel plated (electrically conductive),  
Transparent plastic cover,  
IP65

39 50 000 0200





Identification	Part number	
Han-Port®, Frames, Single, Metal version, nickel plated (electrically conductive), Metal cover, nickel plated, IP65	39 50 000 0110	
Han-Port®, Frames, Double, Metal version, nickel plated (electrically conductive), Metal cover, nickel plated, IP65	39 50 000 0210	
Han-Port®, Frames, Single, Metal version, CPD black, Metal cover, CPD black, IP65	39 50 000 0120	

## Features

- Standard interfaces for easy connection of devices
- Modular assembly
- Assembled data connectors to snap into the frame
- Frames with or without shielding plate

## Technical characteristics

RoHS compliant, compliant with exemption

## Specifications and approvals

UL 508 NRAQ2.E253944  
CSA-C22.2 No. 142 NRAQ8.E253944



## Details

**D-Sub:** < 125 V AC / 150 V DC / 3 A

Mounting depth 32 mm

**RJ45:** < 50 V AC/DC / 1 A

Mounting depth 32 mm

**USB:** < 30 V AC/DC / 1 A

Mounting depth 80 mm

Identification

Part number

Han-Port®,  
Data connectors,  
Without shielding plate,  
D-Sub 1 (9-pin) female/male gender changer,  
D-Sub 1 (9-pin) female/male gender changer

39 50 003 0020



Han-Port®,  
Data connectors,  
Without shielding plate,  
D-Sub 1 (9-pin) female/female gender changer

39 50 003 0024



Han-Port®,  
Data connectors,  
Without shielding plate,  
D-Sub 1 (9-pin) female/male gender changer,  
D-Sub 3 (25-pin) female/male gender changer

39 50 003 0040



Han-Port®,  
Data connectors,  
Without shielding plate,  
D-Sub 3 (25-pin) female/male gender changer

39 50 003 0074



Han-Port®,  
Data connectors,  
Without shielding plate,  
RJ45 female/female gender changer, 8-pin, metal, Cat. 5e,  
D-Sub 1 (9-pin) female/female gender changer,  
D-Sub 1 (9-pin) male/male gender changer

39 50 003 0111



Han-Port®,  
Data connectors,  
Without shielding plate,  
RJ45 female/female gender changer, 8-pin, metal, Cat. 5e,  
D-Sub 1 (9-pin) male/male gender changer,  
D-Sub 1 (9-pin) male/male gender changer,  
D-Sub 1 (9-pin) male/male gender changer

39 50 003 0129



Han-Port

Identification

Part number

Han-Port®,  
Data connectors,  
Without shielding plate,  
RJ45 female/female gender changer, 8-pin, metal, Cat. 5e,  
D-Sub 1 (9-pin) female/male gender changer,  
D-Sub 3 (25-pin) female/male gender changer







39 50 003 0170



Han-Port®,  
Data connectors,  
Without shielding plate,  
D-Sub 1 (15-pin HD) female/male gender changer

39 50 003 0220



Identification	Part number	
<p>Han-Port®, Data connectors, With shielding plate, USB female/female gender changer, size A according to specification 3.0, USB female/female gender changer, size A according to specification 3.0</p>	39 50 002 0093	
<p>Han-Port®, Data connectors, With shielding plate, USB female/female gender changer, size A according to specification 3.0, RJ45 female/female gender changer, 8-pin, metal, Cat. 5e, D-Sub 1 (9-pin) male/male gender changer, D-Sub 1 (9-pin) male/male gender changer</p>	39 50 002 0117	
<p>Han-Port®, Data connectors, With shielding plate, RJ45 female/female gender changer, 8-pin, metal, Cat. 5e, RJ45 female/female gender changer, 8-pin, metal, Cat. 5e</p>	39 50 002 0120	
<p>Han-Port®, Data connectors, With shielding plate, RJ45 female/female gender changer, 8-pin, metal, Cat. 5e, RJ45 female/female gender changer, 8-pin, metal, Cat. 5e, RJ45 female/female gender changer, 8-pin, metal, Cat. 5e, RJ45 female/female gender changer, 8-pin, metal, Cat. 5e</p>	39 50 002 0122	
<p>Han-Port®, Data connectors, With shielding plate, USB female/female gender changer, size A according to specification 3.0, RJ45 female/female gender changer, 8-pin, metal, Cat. 5e, RJ45 female/female gender changer, 8-pin, metal, Cat. 5e</p>	39 50 002 0133	
<p>Han-Port®, Data connectors, With shielding plate, USB female/female gender changer, size A according to specification 3.0, RJ45 female/female gender changer, 8-pin, metal, Cat. 5e, D-Sub 1 (9-pin) female/male gender changer</p>	39 50 002 0143	

Han-Port

## Identification

## Part number

Han-Port®,  
Data connectors,  
With shielding plate,  
USB female/female gender changer, size A according to specification 3.0,  
RJ45 female/female gender changer, 8-pin, metal, Cat. 5e,  
D-Sub 3 (25-pin) female/male gender changer

39 50 002 0145



Han-Port®,  
Data connectors,  
With shielding plate,  
RJ45 female/female gender changer, 8-pin, metal, Cat. 5e,  
RJ45 female/female gender changer, 8-pin, metal, Cat. 5e,  
D-Sub 1 (9-pin) female/female gender changer

39 50 002 0163



Han-Port®,  
Data connectors,  
With shielding plate,  
USB female/female gender changer, size A according to specification 3.0,  
USB female/female gender changer, size A according to specification 3.0,  
RJ45 female/female gender changer, 8-pin, metal, Cat. 5e,  
RJ45 female/female gender changer, 8-pin, metal, Cat. 5e

39 50 004 0097



D-Sub Standard Male With plastic hood  
 D-Sub Standard Male With plastic hood

Han-Port

## Technical characteristics



Number of cores	9
Connector 1	D-Sub, Standard, Male, With plastic hood
Connector 2	D-Sub, Standard, Male, With plastic hood, Female

## Technical characteristics

RoHS compliant

## Details

Other cable lengths on request!

Identification	Cable length	Part number	Drawing (dimensions in mm)
D-Sub, Standard, Copper cable (round), Cable assemblies, Pre-assembled on both sides, Male/male 	2 m	39 50 903 0010	
	5 m	39 50 903 0011	
D-Sub, Standard, Copper cable (round), Cable assemblies, Pre-assembled on both sides, Female/male 	2 m	39 50 903 0020	
	5 m	39 50 903 0021	

RJ45 Thermoplastic  
RJ45 Thermoplastic


Han-  
Port

## Technical characteristics

Number of cores	8
Connector 1	RJ45, Thermoplastic
Connector 2	RJ45, Thermoplastic
Transmission characteristics	Cat. 6, Class E up to 250 MHz
RoHS	compliant

## Details

Other cable lengths on request!

Identification	Cable length	Part number	Drawing (dimensions in mm)
RJ45, Copper cable (round), Cable assemblies, Pre-assembled on both sides  	2 m 5 m	39 50 903 0060 39 50 903 0061	



USB 2.0 Type A Male  
 USB 2.0 Type A Male


Han-  
Port

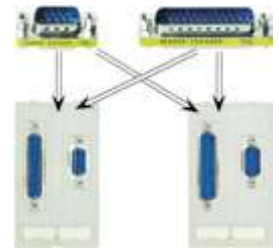
## Technical characteristics

Connector 1	USB 2.0, Type A, Male
Connector 2	USB 2.0, Type A, Male
RoHS	compliant

## Details

Other cable lengths on request!

Identification	Cable length	Part number	Drawing (dimensions in mm)
USB, Copper cable (round), Cable assemblies, Pre-assembled on both sides 	2 m 5 m	39 50 903 0050 39 50 903 0051	



## Technical characteristics

RoHS compliant

### Identification

### Part number

Han-Port®,  
Gender changer,  
D-Sub 1,  
9-pin,  
Female/female

39 50 904 0030



Han-Port®,  
Gender changer,  
D-Sub 1,  
9-pin,  
Female/male

39 50 904 0031



Han-Port®,  
Gender changer,  
D-Sub 1,  
9-pin,  
Male/male

39 50 904 0032



Han-Port®,  
Gender changer,  
D-Sub 3,  
25-pin,  
Female/female

39 50 904 0050



Han-Port®,  
Gender changer,  
USB female/female gender changer, size A according to specification 3.0

39 50 904 0020



Han-Port®,  
Gender changer,  
RJ45 female/female gender changer, 8-pin, metal, Cat. 5e

39 50 904 0010



## Technical characteristics

RoHS compliant

## Specifications and approvals

UL 508 NRAQ2.E253944  
CSA-C22.2 No. 142 NRAQ8.E253944

### Identification

### Part number

Han-Port®,  
Identification strip,  
Pack contents:  
20 pieces per frame

39 50 000 0900



Han-Port®,  
Blind plate,  
With perforated cut-outs for gender changer RJ45, USB and  
D-Sub 3

39 50 000 0851



Han-Port®,  
Blind plate,  
Free space for self assembly of connectors or switches: 45 x 75  
mm

39 50 000 0890



Contents	Page
Han® Q 2/0 Crimp.....	<b>Han 13.2</b>
Han® Q 2/0 Crimp High Voltage .....	<b>Han 13.4</b>
Han® Q 2/0 Axial screw .....	<b>Han 13.6</b>
Han® Q 2/0 Axial screw High Voltage.....	<b>Han 13.8</b>
Han® Q 3/0 Crimp.....	<b>Han 13.10</b>
Han® Q 3/4 Crimp.....	<b>Han 13.12</b>
Han® Q 4/0 Crimp.....	<b>Han 13.15</b>
Han® Q 4/2 Crimp.....	<b>Han 13.17</b>
Han® Q 4/2 Axial screw .....	<b>Han 13.20</b>
Han® Q 5/0 Quick Lock .....	<b>Han 13.22</b>
Han® Q 5/0 Crimp.....	<b>Han 13.24</b>
Han® Q 7/0 Crimp.....	<b>Han 13.27</b>
Han® Q 8/0 Quick Lock .....	<b>Han 13.29</b>
Han® Q 8/0 Crimp.....	<b>Han 13.31</b>
Han® Q 12/0 Crimp/Quick Lock.....	<b>Han 13.34</b>
Han® Q 17/0 Crimp.....	<b>Han 13.37</b>
Han® Q High Density Crimp .....	<b>Han 13.39</b>
Han® Q Data RJ45 .....	<b>Han 13.41</b>
Plastic hoods/housings.....	<b>Han 13.43</b>
Metal hoods / housings.....	<b>Han 13.47</b>
EMC hoods/housings .....	<b>Han 13.50</b>
Accessories .....	<b>Han 13.53</b>

## Features

- High current rated compact designed connector
- Mating compatible to the axial screw version
- Suitable for Han® C crimp contacts
- Allows a cost optimised production of high quantities
- Finger safe male and female contacts
- 16 coding options

## Technical characteristics

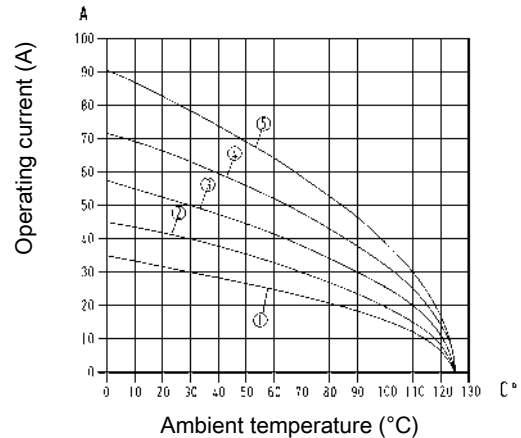
Number of contacts	2
Rated current	40 A
Rated voltage	400 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Rated voltage acc. to CSA	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤1 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 1.5 mm<sup>2</sup>
- ② Conductor cross-section 2.5 mm<sup>2</sup>
- ③ Conductor cross-section 4 mm<sup>2</sup>
- ④ Conductor cross-section 6 mm<sup>2</sup>
- ⑤ Conductor cross-section 10 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 UL 2237 PVVA2.E318390  
 CSA-C22.2 No. 182.3 PVVA8.E318390  
 DNV GL

## Details

**Crimping tools** see chapter Han 90


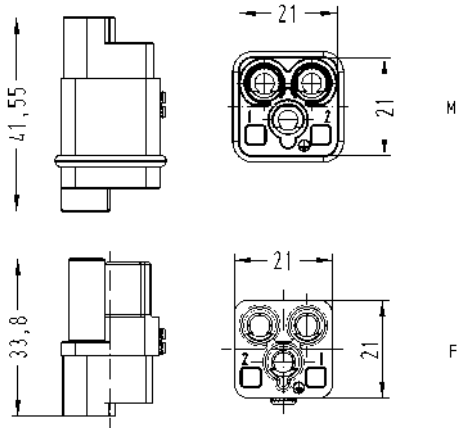

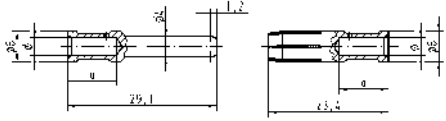

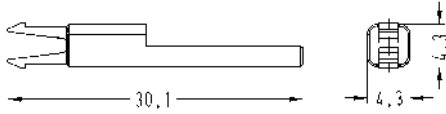
### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts

# 2+

40 A 400 V 6 kV 3

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																								
		Male	Female																									
Han® Q, 2/0, Crimp termination  Please order crimp contacts separately.	1.5 ... 10	09 12 002 3051	09 12 002 3151	 <p>Contact arrangement (view from termination side)</p>																								
Han® C, Crimp contact, Contact surface: Silver plated 	1.5 2.5 4 6 10	09 32 000 6104 09 32 000 6105 09 32 000 6107 09 32 000 6108 09 32 000 6109	09 32 000 6204 09 32 000 6205 09 32 000 6207 09 32 000 6208 09 32 000 6209	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>9.5 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>9.5 mm</td> </tr> <tr> <td>4 mm<sup>2</sup></td> <td>AWG 12</td> <td>2.85 mm</td> <td>9.5 mm</td> </tr> <tr> <td>6 mm<sup>2</sup></td> <td>AWG 10</td> <td>3.5 mm</td> <td>9.5 mm</td> </tr> <tr> <td>10 mm<sup>2</sup></td> <td>AWG 8</td> <td>4.3 mm</td> <td>12 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	ø	Stripping length	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	9.5 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	9.5 mm	4 mm <sup>2</sup>	AWG 12	2.85 mm	9.5 mm	6 mm <sup>2</sup>	AWG 10	3.5 mm	9.5 mm	10 mm <sup>2</sup>	AWG 8	4.3 mm	12 mm
Conductor cross-section	AWG	ø	Stripping length																									
1.5 mm <sup>2</sup>	AWG 16	1.75 mm	9.5 mm																									
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10 mm <sup>2</sup>	AWG 8	4.3 mm	12 mm																									
Coding element 		09 12 000 9922																										

## Features

- High current rated compact designed connector
- Mating compatible to the axial screw version
- Suitable for Han® C crimp contacts
- Allows a cost optimised production of high quantities
- Finger safe male and female contacts
- 16 coding options
- for high voltages, please use heat shrink tube (included in delivery range)

## Technical characteristics

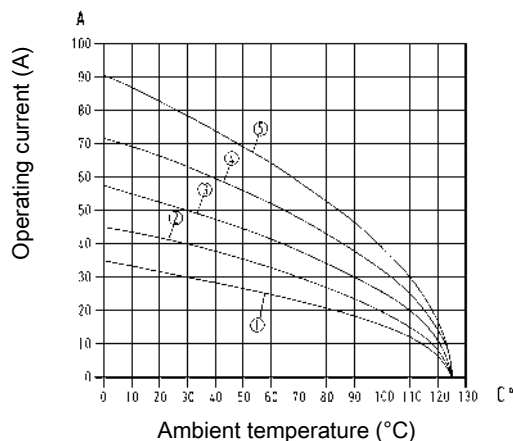
Number of contacts	2
Rated current	40 A
Rated voltage	830 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Rated voltage acc. to CSA	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤1 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 1.5 mm<sup>2</sup>
- ② Conductor cross-section 2.5 mm<sup>2</sup>
- ③ Conductor cross-section 4 mm<sup>2</sup>
- ④ Conductor cross-section 6 mm<sup>2</sup>
- ⑤ Conductor cross-section 10 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts

# 2+

40 A 830 V 6 kV 3

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																								
		Male	Female																									
<p>Han® Q, 2/0 High Voltage, Crimp termination, Pack contents: With heat shrink tube</p> <p>Please order crimp contacts separately.</p>	1.5 ... 10	09 12 002 3052	09 12 002 3152	<p>Contact arrangement (view from termination side)</p>																								
<p>Han® C, Crimp contact, Contact surface: Silver plated</p>	1.5 2.5 4 6 10	09 32 000 6104 09 32 000 6105 09 32 000 6107 09 32 000 6108 09 32 000 6109	09 32 000 6204 09 32 000 6205 09 32 000 6207 09 32 000 6208 09 32 000 6209	<table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>9.5 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>9.5 mm</td> </tr> <tr> <td>4 mm<sup>2</sup></td> <td>AWG 12</td> <td>2.85 mm</td> <td>9.5 mm</td> </tr> <tr> <td>6 mm<sup>2</sup></td> <td>AWG 10</td> <td>3.5 mm</td> <td>9.5 mm</td> </tr> <tr> <td>10 mm<sup>2</sup></td> <td>AWG 8</td> <td>4.3 mm</td> <td>12 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	Ø	Stripping length	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	9.5 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	9.5 mm	4 mm <sup>2</sup>	AWG 12	2.85 mm	9.5 mm	6 mm <sup>2</sup>	AWG 10	3.5 mm	9.5 mm	10 mm <sup>2</sup>	AWG 8	4.3 mm	12 mm
Conductor cross-section	AWG	Ø	Stripping length																									
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6 mm <sup>2</sup>	AWG 10	3.5 mm	9.5 mm																									
10 mm <sup>2</sup>	AWG 8	4.3 mm	12 mm																									
<p>Coding element</p>		09 12 000 9922																										



## Features

- High current rated compact designed connector
- Mating compatible to the crimp version
- Finger safe male and female contacts
- 16 coding options
- No special tools required for axial-screw termination

## Technical characteristics

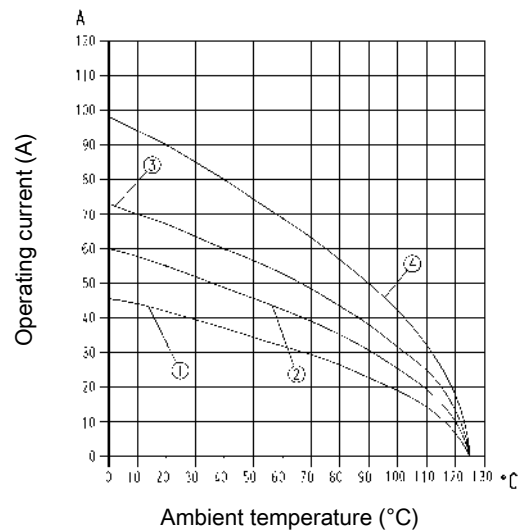
Number of contacts	2
Rated current	40 A
Rated voltage	400 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated voltage acc. to UL	400 V
Rated voltage acc. to CSA	400 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 1 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption, compliant

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2

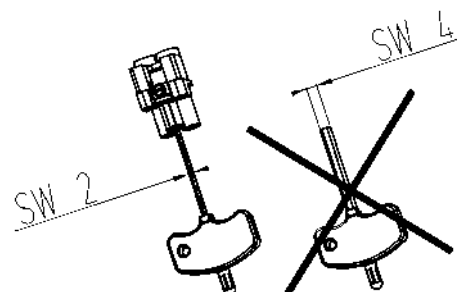


- ① Conductor cross-section 2.5 mm<sup>2</sup>
- ② Conductor cross-section 4 mm<sup>2</sup>
- ③ Conductor cross-section 6 mm<sup>2</sup>
- ④ Conductor cross-section 10 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL

## Details



for termination please use only hexagonal screw driver with A/F 2  
 If PE contact is not used: Please screw the PE contact maximal on both sides clockwise with a hexagonal screwdriver A/F 2.

Number of contacts

**2+**

40 A 400 V 6 kV 3

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han® Q, 2/0, Axial screw termination, Contact surface: Silver plated	1.5 ... 2.5 2.5 ... 6 4 ... 10	09 12 002 2655 09 12 002 2653 09 12 002 2651	09 12 002 2755 09 12 002 2753 09 12 002 2751	<p>Stripping length 8 ... 9 mm                      Tightening torque 1.8 Nm</p>
Coding element		09 12 000 9922		

## Features

- High current rated compact designed connector
- Mating compatible to the crimp version
- Finger safe male and female contacts
- 16 coding options
- No special tools required for axial-screw termination
- for high voltages, please use heat shrink tube (included in delivery range)

## Technical characteristics

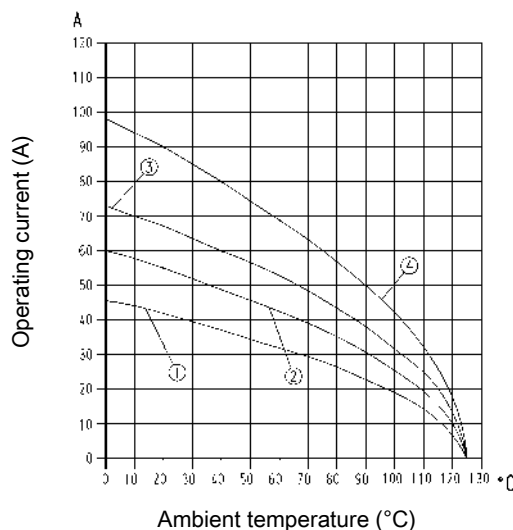
Number of contacts	2
Rated current	40 A
Rated voltage	830 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Rated voltage acc. to CSA	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤1 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption, compliant

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2

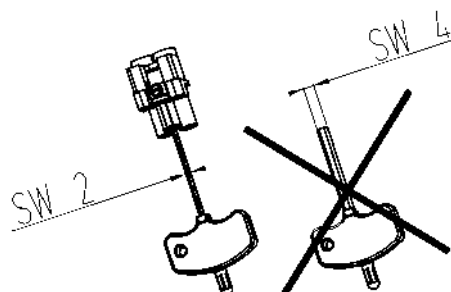


- ① Conductor cross-section 2.5 mm<sup>2</sup>
- ② Conductor cross-section 4 mm<sup>2</sup>
- ③ Conductor cross-section 6 mm<sup>2</sup>
- ④ Conductor cross-section 10 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL

## Details



for termination please use only hexagonal screw driver with A/F 2


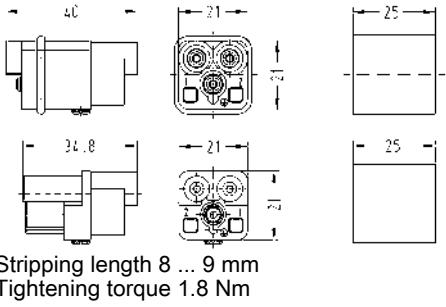

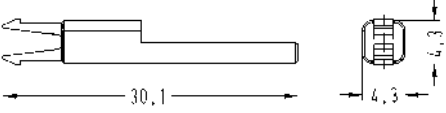
If PE contact is not used: Please screw the PE contact maximal on both sides clockwise with a hexagonal screwdriver A/F 2.

Number of contacts

**2+**

40 A 830 V 6 kV 3

Han Q

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® Q, 2/0 High Voltage, Axial screw termination, Pack contents: With heat shrink tube Contact surface: Silver plated</p> 	<p>1.5 ... 2.5 2.5 ... 6 4 ... 10</p>	<p>09 12 002 2656 09 12 002 2654 09 12 002 2652</p>	<p>09 12 002 2756 09 12 002 2754 09 12 002 2752</p>	 <p>Stripping length 8 ... 9 mm Tightening torque 1.8 Nm</p>
<p>Coding element</p> 		<p>09 12 000 9922</p>		

## Features

- High current rated compact designed connector
- 4 coding options
- Suitable for Han® C crimp contacts
- Finger safe male and female contacts
- Leading PE crimp contact

## Technical characteristics

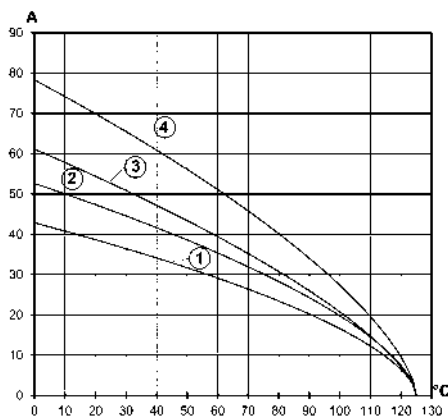
Number of contacts	3
Rated current	40 A
Rated voltage	400 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Rated voltage acc. to CSA	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 1 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 2.5 mm<sup>2</sup>
- ② Conductor cross-section 4 mm<sup>2</sup>
- ③ Conductor cross-section 6 mm<sup>2</sup>
- ④ Conductor cross-section 10 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
UL 2237 PVVA2.E318390  
CSA-C22.2 No. 182.3 PVVA8.E318390  
DNV GL

## Details

**Crimping tools** see chapter Han 90


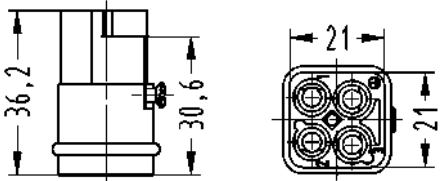
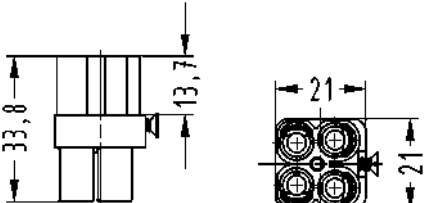

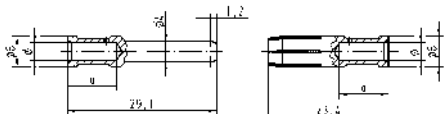

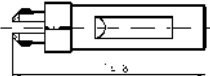
### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts

# 3+

40 A 400 V 6 kV 3

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																		
		Male	Female																			
Han® Q, 3/0, Crimp termination  Please order crimp contacts separately.	1.5 ... 10	09 12 003 3051	09 12 003 3151	 																		
Han® C, Crimp contact, Contact surface: Silver plated 	1.5 2.5 4 6 10	09 32 000 6104 09 32 000 6105 09 32 000 6107 09 32 000 6108 09 32 000 6109	09 32 000 6204 09 32 000 6205 09 32 000 6207 09 32 000 6208 09 32 000 6209	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>9.5 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>9.5 mm</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>2.85 mm</td> <td>9.5 mm</td> </tr> <tr> <td>6 mm<sup>2</sup> AWG 10</td> <td>3.5 mm</td> <td>9.5 mm</td> </tr> <tr> <td>10 mm<sup>2</sup> AWG 8</td> <td>4.3 mm</td> <td>12 mm</td> </tr> </tbody> </table>	Conductor cross-section	ø	Stripping length	1.5 mm <sup>2</sup> AWG 16	1.75 mm	9.5 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	9.5 mm	4 mm <sup>2</sup> AWG 12	2.85 mm	9.5 mm	6 mm <sup>2</sup> AWG 10	3.5 mm	9.5 mm	10 mm <sup>2</sup> AWG 8	4.3 mm	12 mm
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10 mm <sup>2</sup> AWG 8	4.3 mm	12 mm																				
Coding element, Pack contents: 20 pieces per frame 		09 12 000 9924																				

## Features

- Han® C power contacts
- Han D® signal contacts
- Finger safe male and female contacts
- Leading PE crimp contact
- Suitable for standard plastic hoods/housings or metal hoods/housings with additional PE terminating contact on the hoods/housings from the Han-Compact® series

## Technical characteristics

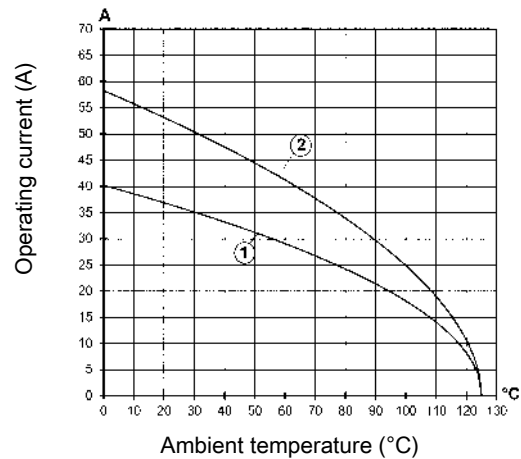
Number of contacts	3
Additional contacts	+ 4 additional signal contacts
Rated current	40 A
Rated voltage conductor-earth	400 V
Rated voltage conductor-conductor	690 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated current (signal)	10 A
Rated voltage (signal)	250 V
Rated impulse voltage (signal)	4 kV
Pollution degree (signal)	3
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤1 mΩ, ≤3 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 2.5 mm<sup>2</sup>
- ② Conductor cross-section 6 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
DNV GL

## Details

Contact resistance Han D® crimp contact: ≤ 3 mΩ

Contact resistance Han® C crimp contact: ≤ 1 mΩ

**Crimping tools** see chapter Han 90


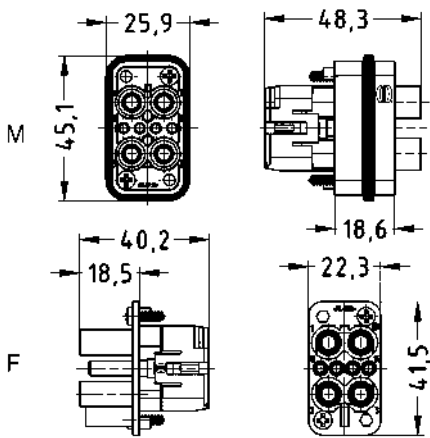

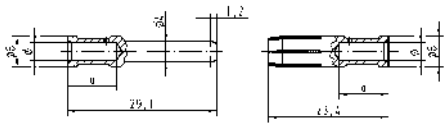

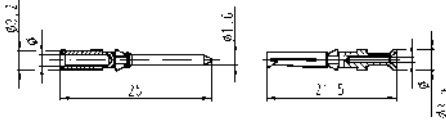
### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts

# 3+

40 A 400/690 V 6 kV 3  
 10 A 250 V 4 kV 3  
 + 4 additional signal contacts

Identification	Conductor cross-section (mm²)	Part number		Drawing (dimensions in mm)																					
		Male	Female																						
Han® Q, 3/4, Crimp termination  Please order crimp contacts separately.		09 12 007 3041	09 12 007 3141																						
Han® C, Crimp contact, Contact surface: Silver plated 	1.5 2.5 4 6	09 32 000 6104 09 32 000 6105 09 32 000 6107 09 32 000 6108	09 32 000 6204 09 32 000 6205 09 32 000 6207 09 32 000 6208	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>1.5 mm² AWG 16</td> <td>1.75 mm</td> <td>9.5 mm</td> </tr> <tr> <td>2.5 mm² AWG 14</td> <td>2.25 mm</td> <td>9.5 mm</td> </tr> <tr> <td>4 mm² AWG 12</td> <td>2.85 mm</td> <td>9.5 mm</td> </tr> <tr> <td>6 mm² AWG 10</td> <td>3.5 mm</td> <td>9.5 mm</td> </tr> <tr> <td>10 mm² AWG 8</td> <td>4.3 mm</td> <td>12 mm</td> </tr> </tbody> </table>	Conductor cross-section	Ø	Stripping length	1.5 mm² AWG 16	1.75 mm	9.5 mm	2.5 mm² AWG 14	2.25 mm	9.5 mm	4 mm² AWG 12	2.85 mm	9.5 mm	6 mm² AWG 10	3.5 mm	9.5 mm	10 mm² AWG 8	4.3 mm	12 mm			
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10 mm² AWG 8	4.3 mm	12 mm																							
Han D®, Crimp contact, Contact surface: Silver plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 000 6104 09 15 000 6103 09 15 000 6105 09 15 000 6102 09 15 000 6101 09 15 000 6106	09 15 000 6204 09 15 000 6203 09 15 000 6205 09 15 000 6202 09 15 000 6201 09 15 000 6206	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm² AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm² AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm² AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm² AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm² AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm² AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	Ø	Stripping length	0.14-0.37 mm² AWG 26-22	0.9 mm	8 mm	0.5 mm² AWG 20	1.1 mm	8 mm	0.75 mm² AWG 18	1.3 mm	8 mm	1 mm² AWG 18	1.45 mm	8 mm	1.5 mm² AWG 16	1.75 mm	8 mm	2.5 mm² AWG 14	2.25 mm	6 mm
Conductor cross-section	Ø	Stripping length																							
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1.5 mm² AWG 16	1.75 mm	8 mm																							
2.5 mm² AWG 14	2.25 mm	6 mm																							





Han Q

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																												
		Male	Female																													
Han D®, Crimp contact, Contact surface: Gold plated	0.14 ... 0.37	09 15 000 6124	09 15 000 6224																													
	0.5	09 15 000 6123	09 15 000 6223																													
	0.75	09 15 000 6125	09 15 000 6225																													
	1	09 15 000 6122	09 15 000 6222																													
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	2.5	09 15 000 6126	09 15 000 6226																													
				<table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	Ø	Stripping length	0.14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm
Conductor cross-section	AWG	Ø	Stripping length																													
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2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm																													

## Features

- High current rated compact designed connector
- 4 coding options
- Suitable for Han® C crimp contacts
- Finger safe male and female contacts

## Technical characteristics

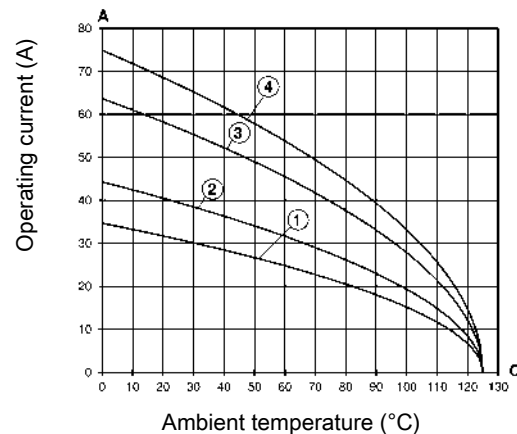
Number of contacts	4
Rated current	40 A
Rated voltage	830 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Rated voltage acc. to CSA	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 1 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 2.5 mm<sup>2</sup>
- ② Conductor cross-section 4 mm<sup>2</sup>
- ③ Conductor cross-section 6 mm<sup>2</sup>
- ④ Conductor cross-section 10 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
UL 2237 PVVA2.E318390  
CSA-C22.2 No. 182.3 PVVA8.E318390  
DNV GL

## Details

Attention! Only for thermoplastic hoods/housings!

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


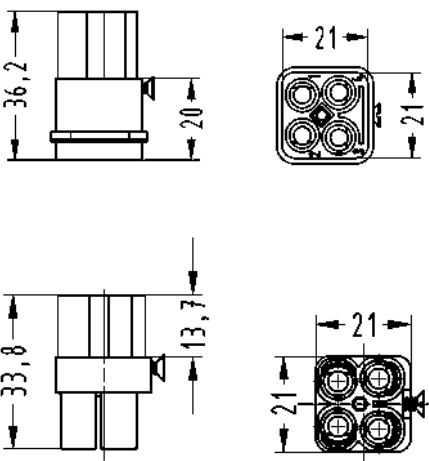

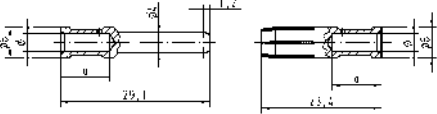

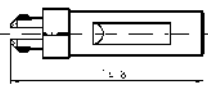
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts

# 4

40 A 830 V 8 kV 3

Han Q

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																		
		Male	Female																			
Han® Q, 4/0, Crimp termination  <p>Please order crimp contacts separately.</p>	1.5 ... 10	09 12 004 3051	09 12 004 3151																			
Han® C, Crimp contact, Contact surface: Silver plated 	1.5 2.5 4 6 10	09 32 000 6104 09 32 000 6105 09 32 000 6107 09 32 000 6108 09 32 000 6109	09 32 000 6204 09 32 000 6205 09 32 000 6207 09 32 000 6208 09 32 000 6209	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>9.5 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>9.5 mm</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>2.85 mm</td> <td>9.5 mm</td> </tr> <tr> <td>6 mm<sup>2</sup> AWG 10</td> <td>3.5 mm</td> <td>9.5 mm</td> </tr> <tr> <td>10 mm<sup>2</sup> AWG 8</td> <td>4.3 mm</td> <td>12 mm</td> </tr> </tbody> </table>	Conductor cross-section	ø	Stripping length	1.5 mm <sup>2</sup> AWG 16	1.75 mm	9.5 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	9.5 mm	4 mm <sup>2</sup> AWG 12	2.85 mm	9.5 mm	6 mm <sup>2</sup> AWG 10	3.5 mm	9.5 mm	10 mm <sup>2</sup> AWG 8	4.3 mm	12 mm
Conductor cross-section	ø	Stripping length																				
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6 mm <sup>2</sup> AWG 10	3.5 mm	9.5 mm																				
10 mm <sup>2</sup> AWG 8	4.3 mm	12 mm																				
Coding element, Pack contents: 20 pieces per frame 		09 12 000 9924																				

## Features

- Han® C power contacts
- Han D® signal contacts
- Finger safe male and female contacts
- Leading PE crimp contact
- Suitable for standard plastic hoods/housings or metal hoods/housings with additional PE terminating contact on the hoods/housings from the Han-Compact® series
- Mating compatible to the axial screw version

## Technical characteristics

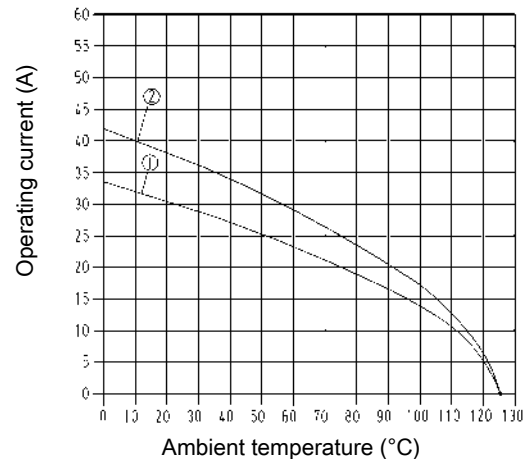
Number of contacts	4
Additional contacts	+ 2 additional signal contacts
Rated current	40 A
Rated voltage conductor-earth	400 V
Rated voltage conductor-conductor	690 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated current (signal)	10 A
Rated voltage (signal)	250 V
Rated impulse voltage (signal)	4 kV
Pollution degree (signal)	3
Rated voltage acc. to UL	600 V
Rated voltage acc. to UL (signal)	250 V
Rated voltage acc. to CSA	600 V
Rated voltage acc. to CSA (signal)	250 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤1 mΩ, ≤3 mΩ
Contact resistance, signal area	<3 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 2.5 mm<sup>2</sup>
- ② Conductor cross-section 4 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
UL 2237 PVVA2.E318390  
CSA-C22.2 No. 182.3 PVVA8.E318390  
DNV GL

## Details

Contact resistance Han D® crimp contact: ≤ 3 mOhm

Contact resistance Han® C crimp contact: ≤ 1 mOhm


**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.


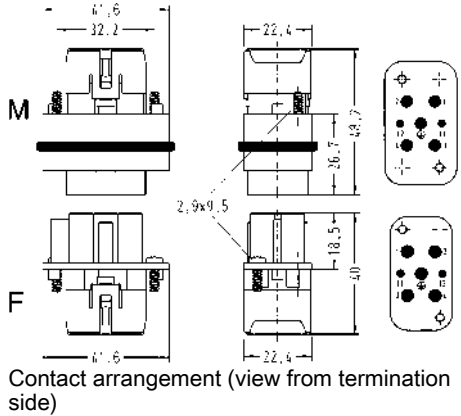

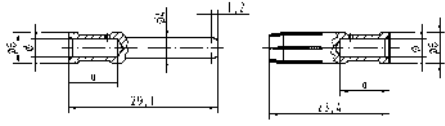

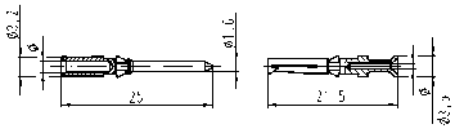
Number of contacts

# 4+



40 A 400/690 V 6 kV 3  
 10 A 250 V 4 kV 3  
 + 2 additional signal contacts

Han Q

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																					
		Male	Female																						
Han® Q, 4/2, Crimp termination  <p>Please order crimp contacts separately.</p>	1.5 ... 6, 0.14 ... 2.5 Signal	09 12 006 3041	09 12 006 3141	 <p>Contact arrangement (view from termination side)</p>																					
Han® C, Crimp contact, Contact surface: Silver plated 	1.5 2.5 4 6	09 32 000 6104 09 32 000 6105 09 32 000 6107 09 32 000 6108	09 32 000 6204 09 32 000 6205 09 32 000 6207 09 32 000 6208	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>9.5 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>9.5 mm</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>2.85 mm</td> <td>9.5 mm</td> </tr> <tr> <td>6 mm<sup>2</sup> AWG 10</td> <td>3.5 mm</td> <td>9.5 mm</td> </tr> <tr> <td>10 mm<sup>2</sup> AWG 8</td> <td>4.3 mm</td> <td>12 mm</td> </tr> </tbody> </table>	Conductor cross-section	ø	Stripping length	1.5 mm <sup>2</sup> AWG 16	1.75 mm	9.5 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	9.5 mm	4 mm <sup>2</sup> AWG 12	2.85 mm	9.5 mm	6 mm <sup>2</sup> AWG 10	3.5 mm	9.5 mm	10 mm <sup>2</sup> AWG 8	4.3 mm	12 mm			
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0.75 mm <sup>2</sup> AWG 18	1.3 mm	8 mm																							
1 mm <sup>2</sup> AWG 18	1.45 mm	8 mm																							
1.5 mm <sup>2</sup> AWG 16	1.75 mm	8 mm																							
2.5 mm <sup>2</sup> AWG 14	2.25 mm	6 mm																							

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																												
		Male	Female																													
Han D®, Crimp contact, Contact surface: Gold plated	0.14 ... 0.37	09 15 000 6124	09 15 000 6224																													
	0.5	09 15 000 6123	09 15 000 6223																													
	0.75	09 15 000 6125	09 15 000 6225																													
	1	09 15 000 6122	09 15 000 6222																													
	1.5	09 15 000 6121	09 15 000 6221																													
	2.5	09 15 000 6126	09 15 000 6226																													
				<table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	ø	Stripping length	0.14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm
Conductor cross-section	AWG	ø	Stripping length																													
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## Features

- Compact design saves space
- No special tools required
- Mating compatible to the crimp version
- Suitable for standard plastic hoods/housings or metal hoods/housings with additional PE terminating contact on the hoods/housings from the Han-Compact® series
- With or without Han-Quick Lock® signal contacts

## Technical characteristics

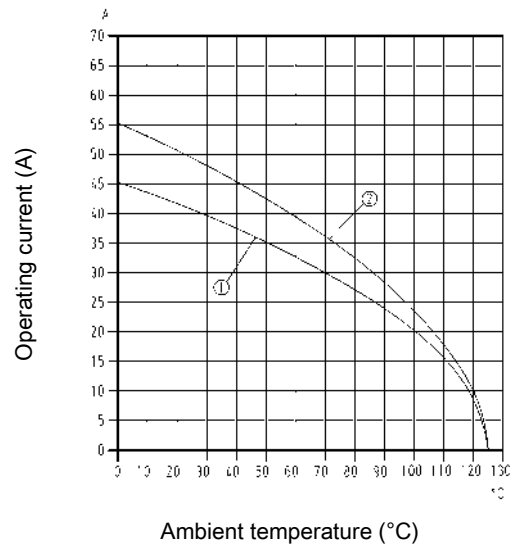
Number of contacts	4
Additional contacts	+ 2 additional signal contacts
Rated current	40 A
Rated voltage conductor-earth	400 V
Rated voltage conductor-conductor	690 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated current (signal)	10 A
Rated voltage (signal)	250 V
Rated impulse voltage (signal)	4 kV
Pollution degree (signal)	3
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤0.3 mΩ
Contact resistance, signal area	<3 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2

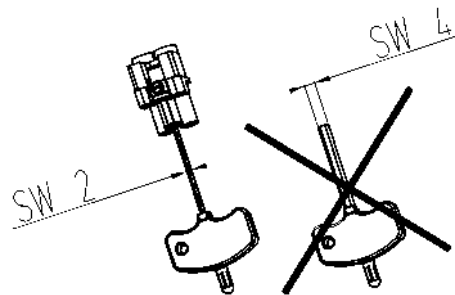


- ① Conductor cross-section 4 mm<sup>2</sup>
- ② Conductor cross-section 6 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
DNV GL

## Details



for termination please use only hexagonal screw driver with A/F 2  
If PE contact is not used: Please screw the PE contact maximal on both sides clockwise with a hexagonal screwdriver A/F 2.

Number of contacts

**4+**

40 A 400/690 V 6 kV 3  
 10 A 250 V 4 kV 3  
 + 2 additional signal contacts



Han Q

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han® Q, 4/2, Axial screw termination, Contact surface: Silver plated   With Han-Quick Lock® signal contacts	2.5 ... 6, 0.25 ... 1.5 Signal 4 ... 10, 0.25 ... 1.5 Signal	09 12 006 2662 09 12 006 2663	09 12 006 2762 09 12 006 2763	 Stripping length Power contacts 8 mm Stripping length Signal contacts 10 mm Tightening torque 1.8 Nm
Han® Q, 4/2, Axial screw termination, Contact surface: Silver plated Without signal contacts	2.5 ... 6 4 ... 10	09 12 006 2665 09 12 006 2666	09 12 006 2765 09 12 006 2766	



## Features

- Innovative Han-Quick Lock® termination with reduced wiring times
- No special tools required
- Mating compatible to the crimp version
- Vibration and shock resistant

## Technical characteristics

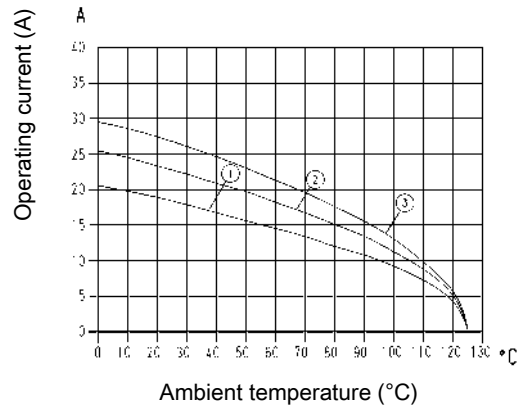
Number of contacts	5
Rated current	16 A
Rated voltage conductor-earth	230 V
Rated voltage conductor-conductor	400 V
Rated impulse voltage	4 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Rated voltage acc. to CSA	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤1 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 1 mm<sup>2</sup>
- ② Conductor cross-section 1.5 mm<sup>2</sup>
- ③ Conductor cross-section 2.5 mm<sup>2</sup>

## Specifications and approvals


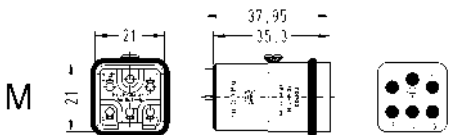
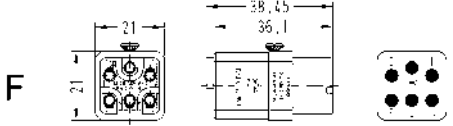

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL

Number of contacts

# 5+

16 A 230/400 V 4 kV 3

Han Q

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han® Q, 5/0, Han-Quick Lock® termination, Contact surface: Silver plated   Blue slide	0.5 ... 2.5	09 12 005 2633	09 12 005 2733	  Stripping length 10 mm
Han® Q, 5/0, Han-Quick Lock® termination, Contact surface: Silver plated   Black slide	0.25 ... 1.5	09 12 005 2634	09 12 005 2734	

## Features

- Compact design saves space
- Suitable for Han E® crimp contacts
- 32 coding options without loss of contacts

## Technical characteristics

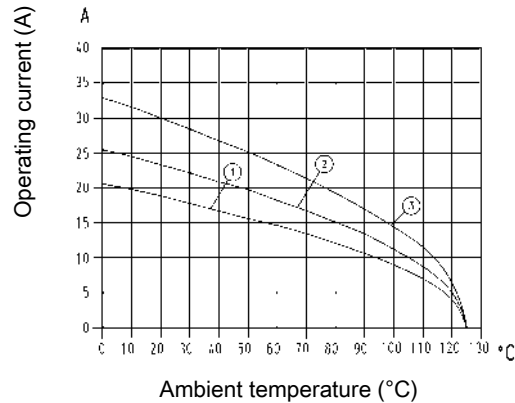
Number of contacts	5
Rated current	16 A
Rated voltage conductor-earth	230 V
Rated voltage conductor-conductor	400 V
Rated impulse voltage	4 kV
Pollution degree	3
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤1 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Polyamide (PA)
Colour (accessories)	Red
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption, compliant

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 1 mm<sup>2</sup>
- ② Conductor cross-section 1.5 mm<sup>2</sup>
- ③ Conductor cross-section 2.5 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

### Coding pin

Use of the coding pin prevents incorrect mating to other connectors of the same type. The male pin should be omitted from the opposing cavity in the male insert.


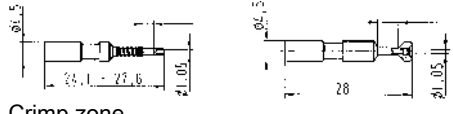

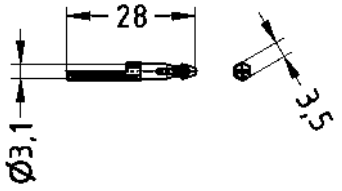
Number of contacts

# 5+

16 A 230/400 V 4 kV 3

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																		
		Male	Female																			
Han® Q, 5/0, Crimp termination <p>Please order crimp contacts separately. Please order coding pins separately.</p>	0.14 ... 2.5	09 12 005 3004	09 12 005 3104	<p>Contact arrangement (view from mating side)</p>																		
Han E®, Crimp contact, Contact surface: Silver plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 33 000 6127 09 33 000 6121 09 33 000 6114 09 33 000 6105 09 33 000 6104 09 33 000 6102	09 33 000 6227 09 33 000 6220 09 33 000 6214 09 33 000 6205 09 33 000 6204 09 33 000 6202	<table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm<sup>2</sup> AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar Stripping length 7.5 mm</p>	Conductor cross-section	Identification	0.14-0.37 mm <sup>2</sup> AWG 26-22	no groove	0.5 mm <sup>2</sup> AWG 20	no groove	0.75 mm <sup>2</sup> AWG 18	1 groove*	1 mm <sup>2</sup> AWG 18	1 groove	1.5 mm <sup>2</sup> AWG 16	2 groove	2.5 mm <sup>2</sup> AWG 14	3 groove	3 mm <sup>2</sup> AWG 12	wide groove	4 mm <sup>2</sup> AWG 12	no groove
Conductor cross-section	Identification																					
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4 mm <sup>2</sup> AWG 12	no groove																					
Han E®, Crimp contact, Contact surface: Gold plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 33 000 6117 09 33 000 6122 09 33 000 6115 09 33 000 6118 09 33 000 6116 09 33 000 6123	09 33 000 6217 09 33 000 6222 09 33 000 6215 09 33 000 6218 09 33 000 6216 09 33 000 6223																			
Han E®, Crimp contact, Relay contact, Contact surface: Silver plated 	0.75 ... 1 1.5 2.5	09 33 000 6109 09 33 000 6110 09 33 000 6111		<table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.75-1 mm<sup>2</sup> AWG 18</td> <td>1.45 mm</td> <td>7.5 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>7.5 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>7.5 mm</td> </tr> </tbody> </table>	Conductor cross-section	ø	Stripping length	0.75-1 mm <sup>2</sup> AWG 18	1.45 mm	7.5 mm	1.5 mm <sup>2</sup> AWG 16	1.75 mm	7.5 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	7.5 mm						
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Han Q

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
FO contact, for 1 mm plastic fibre 		20 10 001 3311	20 10 001 3321	 <p>Crimp zone</p>
Coding element, Pack contents: 20 pieces per frame 		09 12 000 9927	09 12 000 9927	

## Features

- Compact design saves space
- Suitable for Han D® crimp contacts
- 6 coding options

## Technical characteristics

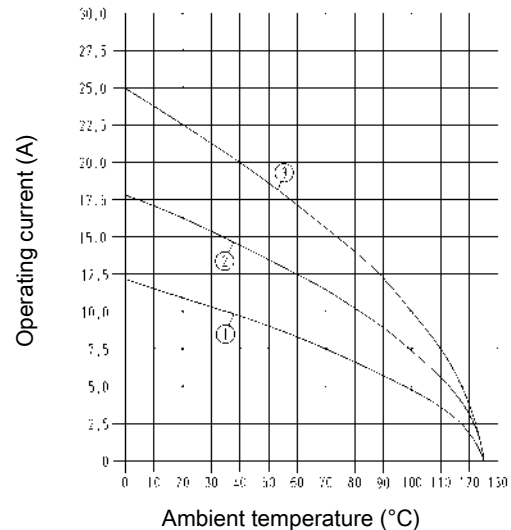
Number of contacts	7
Rated current	10 A
Rated voltage	400 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Rated voltage acc. to CSA	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 3 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption, compliant

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 0.75 mm<sup>2</sup>
- ② Conductor cross-section 1.5 mm<sup>2</sup>
- ③ Conductor cross-section 2.5 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
UL 2237 PVVA2.E318390  
CSA-C22.2 No. 182.3 PVVA8.E318390  
DNV GL

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts

# 7+

10 A 400 V 6 kV 3

Han Q

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																					
		Male	Female																						
<p>Han® Q, 7/0, Crimp termination</p> <p>Please order crimp contacts separately.</p>	0.14 ... 2.5	09 12 007 3001	09 12 007 3101	<p>Contact arrangement (view from termination side)</p>																					
<p>Han D®, Crimp contact, Contact surface: Silver plated</p>	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 000 6104 09 15 000 6103 09 15 000 6105 09 15 000 6102 09 15 000 6101 09 15 000 6106	09 15 000 6204 09 15 000 6203 09 15 000 6205 09 15 000 6202 09 15 000 6201 09 15 000 6206	<table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	Ø	Stripping length	0.14-0.37 mm <sup>2</sup> AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup> AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup> AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup> AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup> AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	6 mm
Conductor cross-section	Ø	Stripping length																							
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<p>Han D®, Crimp contact, Contact surface: Gold plated</p>	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 000 6124 09 15 000 6123 09 15 000 6125 09 15 000 6122 09 15 000 6121 09 15 000 6126	09 15 000 6224 09 15 000 6223 09 15 000 6225 09 15 000 6222 09 15 000 6221 09 15 000 6226	<table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	Ø	Stripping length	0.14-0.37 mm <sup>2</sup> AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup> AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup> AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup> AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup> AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	6 mm
Conductor cross-section	Ø	Stripping length																							
0.14-0.37 mm <sup>2</sup> AWG 26-22	0.9 mm	8 mm																							
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1.5 mm <sup>2</sup> AWG 16	1.75 mm	8 mm																							
2.5 mm <sup>2</sup> AWG 14	2.25 mm	6 mm																							
<p>FO contact, for 1 mm plastic fibre</p>		20 10 001 3211	20 10 001 3221	<p>20 10 001 3211 + 20 10 001 3221</p>																					
<p>Coding element</p>		09 12 000 9901	09 12 000 9902																						

## Features

- Innovative Han-Quick Lock® termination with reduced wiring times
- No special tools required
- Mating compatible to the crimp version
- Suitable for standard plastic hoods/housings or metal hoods/housings with additional PE terminating contact on the hoods/housings from the Han-Compact® series
- Leading PE crimp contact

## Technical characteristics

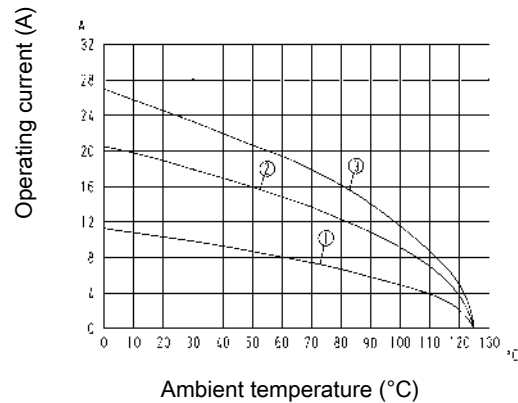
Number of contacts	8
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Rated voltage acc. to CSA	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 0.5 mm<sup>2</sup>
- ② Conductor cross-section 1.5 mm<sup>2</sup>
- ③ Conductor cross-section 2.5 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL




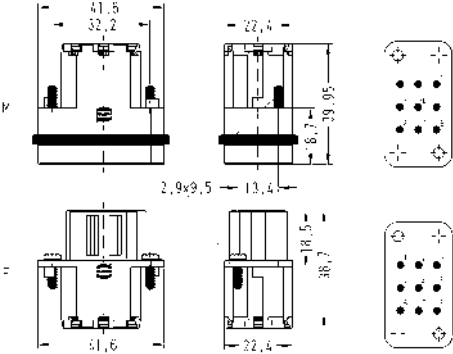



Number of contacts

**8+**

16 A 500 V 6 kV 3

Han Q

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® Q, 8/0, Han-Quick Lock® termination, Contact surface: Silver plated</p>  <p>Blue slide</p>	0.5 ... 2.5	09 12 008 2633	09 12 008 2733	 <p>Stripping length 10 mm</p>
<p>Han® Q, 8/0, Han-Quick Lock® termination, Contact surface: Silver plated</p>  <p>Black slide</p>	0.25 ... 1.5	09 12 008 2634	09 12 008 2734	

## Features

- Compact design saves space
- Suitable for Han E® crimp contacts
- Leading PE crimp contact
- ISO 23570 / DESINA conform product

## Technical characteristics

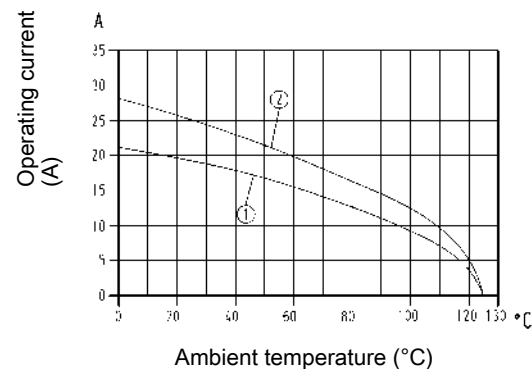
Number of contacts	8
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Rated voltage acc. to CSA	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 1 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 1.5 mm<sup>2</sup>  
 ② Conductor cross-section 2.5 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 UL 2237 PVVA2.E318390  
 CSA-C22.2 No. 182.3 PVVA8.E318390  
 DNV GL

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

### Coding pin


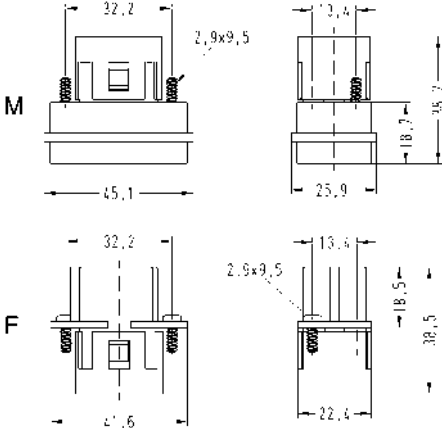
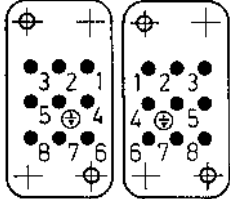

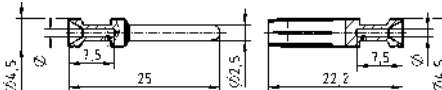
Use of the coding pin prevents incorrect mating to other connectors of the same type. The male pin should be omitted from the opposing cavity in the male insert.


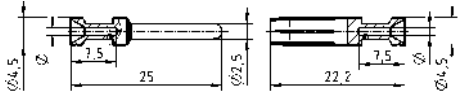
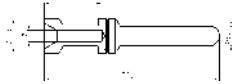



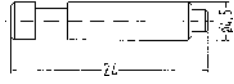
Number of contacts

# 8+

16 A 500 V 6 kV 3

Han Q

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																		
		Male	Female																			
<p>Han® Q, 8/0, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.14 ... 4	09 12 008 3001	09 12 008 3101	  <p>Contact arrangement (view from termination side)</p>																		
<p>Han E®, Crimp contact, Contact surface: Silver plated</p> 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5 3 4	09 33 000 6127 09 33 000 6121 09 33 000 6114 09 33 000 6105 09 33 000 6104 09 33 000 6102 09 33 000 6106 09 33 000 6107	09 33 000 6227 09 33 000 6220 09 33 000 6214 09 33 000 6205 09 33 000 6204 09 33 000 6202 09 33 000 6206 09 33 000 6207	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm<sup>2</sup> AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar</p> <p>Stripping length 7.5 mm</p>	Conductor cross-section	Identification	0.14-0.37 mm <sup>2</sup> AWG 26-22	no groove	0.5 mm <sup>2</sup> AWG 20	no groove	0.75 mm <sup>2</sup> AWG 18	1 groove*	1 mm <sup>2</sup> AWG 18	1 groove	1.5 mm <sup>2</sup> AWG 16	2 groove	2.5 mm <sup>2</sup> AWG 14	3 groove	3 mm <sup>2</sup> AWG 12	wide groove	4 mm <sup>2</sup> AWG 12	no groove
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Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																																							
		Male	Female																																								
Han E®, Crimp contact, Contact surface: Gold plated 	0.14 ... 0.37	09 33 000 6117	09 33 000 6217	 <table border="1"> <thead> <tr> <th colspan="2">Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm<sup>2</sup></td> <td>AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm<sup>2</sup></td> <td>AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar</p> <p>Stripping length 7.5 mm</p>  <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.75-1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> </tr> </tbody> </table>	Conductor cross-section		Identification	0.14-0.37 mm <sup>2</sup>	AWG 26-22	no groove	0.5 mm <sup>2</sup>	AWG 20	no groove	0.75 mm <sup>2</sup>	AWG 18	1 groove*	1 mm <sup>2</sup>	AWG 18	1 groove	1.5 mm <sup>2</sup>	AWG 16	2 groove	2.5 mm <sup>2</sup>	AWG 14	3 groove	3 mm <sup>2</sup>	AWG 12	wide groove	4 mm <sup>2</sup>	AWG 12	no groove	Conductor cross-section	ø	Stripping length	0.75-1 mm <sup>2</sup>	AWG 18	1.45 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm
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0.5	09 33 000 6122	09 33 000 6222																																									
0.75	09 33 000 6115	09 33 000 6215																																									
1	09 33 000 6118	09 33 000 6218																																									
1.5	09 33 000 6116	09 33 000 6216																																									
2.5	09 33 000 6123	09 33 000 6223																																									
4	09 33 000 6119	09 33 000 6221																																									
Han E®, Crimp contact, Relay contact, Contact surface: Silver plated 	0.75 ... 1	09 33 000 6109																																									
	1.5	09 33 000 6110																																									
	2.5	09 33 000 6111																																									
FO contact, for 1 mm plastic fibre 		20 10 001 3311	20 10 001 3321																																								
			09 33 000 9954																																								
Han E®, Han® EE, Han® EEE, Coding pin 																																											
	for crimp inserts only With loss of one contact																																										

## Features

- Suitable for Han D® crimp contacts
- PE contact with Han-Quick Lock® termination
- 16 coding options without loss of contacts

## Technical characteristics

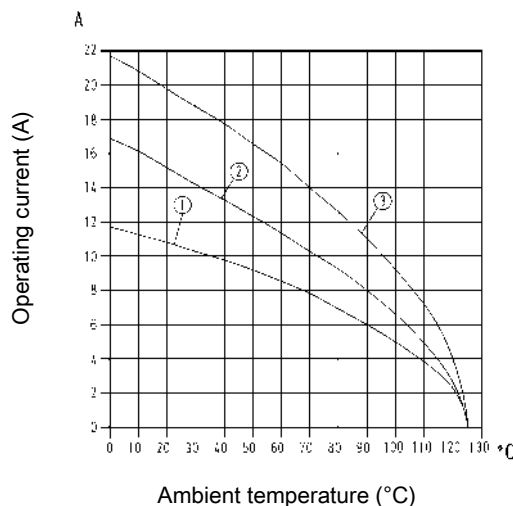
Number of contacts	12
Rated current	10 A
Rated voltage	400 V
Rated impulse voltage	6 kV
Pollution degree	3
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption, compliant

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 0.75 mm<sup>2</sup>
- ② Conductor cross-section 1.5 mm<sup>2</sup>
- ③ Conductor cross-section 2.5 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL

## Details

**Crimping tools** see chapter Han 90


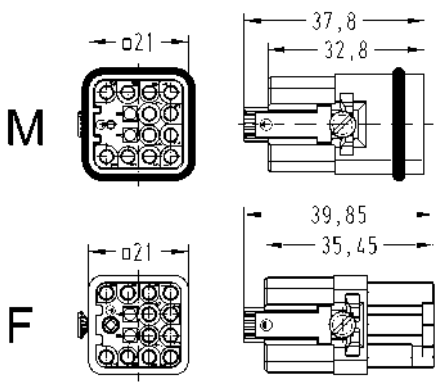


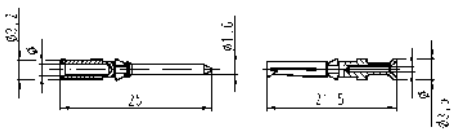
### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts


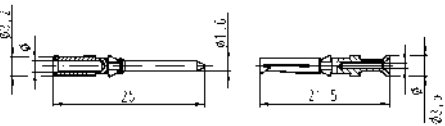



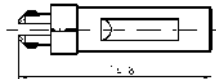
# 12+

10 A 400 V 6 kV 3

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																					
		Male	Female																						
Han® Q, 12/0, With Han-Quick Lock® PE contact, Crimp termination  Blue slide Please order crimp contacts separately.	0.14 ... 2.5	09 12 012 3001	09 12 012 3101	 <p>M</p> <p>F</p> <p>With Han-Quick Lock® PE contact :                      Conductor cross-section Blue slide 0.5 ... 2.5                      Conductor cross-section Black slide 0.25 ... 1.5</p>																					
Han® Q, 12/0, With Han-Quick Lock® PE contact, Crimp termination  Black slide Please order crimp contacts separately.	0.14 ... 2.5	09 12 012 3004	09 12 012 3104																						
Han D®, Crimp contact, Contact surface: Silver plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 000 6104 09 15 000 6103 09 15 000 6105 09 15 000 6102 09 15 000 6101 09 15 000 6106	09 15 000 6204 09 15 000 6203 09 15 000 6205 09 15 000 6202 09 15 000 6201 09 15 000 6206	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th><math>\phi</math></th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	$\phi$	Stripping length	0.14-0.37 mm <sup>2</sup> AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup> AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup> AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup> AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup> AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	6 mm
Conductor cross-section	$\phi$	Stripping length																							
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2.5 mm <sup>2</sup> AWG 14	2.25 mm	6 mm																							



Han Q

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																												
		Male	Female																													
Han D®, Crimp contact, Contact surface: Gold plated 	0.14 ... 0.37	09 15 000 6124	09 15 000 6224	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	Ø	Stripping length	0.14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm
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0.5	09 15 000 6123	09 15 000 6223																														
0.75	09 15 000 6125	09 15 000 6225																														
1	09 15 000 6122	09 15 000 6222																														
1.5	09 15 000 6121	09 15 000 6221																														
2.5	09 15 000 6126	09 15 000 6226																														
FO contact, for 1 mm plastic fibre 		20 10 001 3211	20 10 001 3221	 <p>20 10 001 3211 + 20 10 001 3221</p>																												
Coding element, Pack contents: 20 pieces per frame 		09 12 000 9924																														

## Features

- Compact design saves space
- Suitable for Han D® crimp contacts
- Leading PE crimp contact

## Technical characteristics

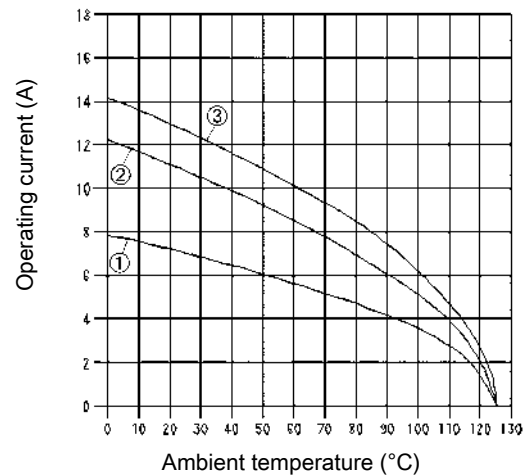
Number of contacts	17
Rated current	10 A
Rated voltage	160 V
Rated impulse voltage	2.5 kV
Pollution degree	3
Rated voltage acc. to UL	250 V
Rated voltage acc. to CSA	250 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 3 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 0.5 mm<sup>2</sup>
- ② Conductor cross-section 1 mm<sup>2</sup>
- ③ Conductor cross-section 1.5 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.



Number of contacts

# 17+

10 A 160 V 2.5 kV 3

Han Q

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																												
		Male	Female																													
<p>Han® Q, 17/0, Crimp termination</p> <p>Please order crimp contacts separately.</p>	0.14 ... 2.5	09 12 017 3001	09 12 017 3101	<p>Contact arrangement (view from termination side)</p>																												
<p>Han D®, Crimp contact, Contact surface: Silver plated</p>	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 000 6104 09 15 000 6103 09 15 000 6105 09 15 000 6102 09 15 000 6101 09 15 000 6106	09 15 000 6204 09 15 000 6203 09 15 000 6205 09 15 000 6202 09 15 000 6201 09 15 000 6206	<table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	Ø	Stripping length	0.14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm
Conductor cross-section	AWG	Ø	Stripping length																													
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2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm																													
<p>Han D®, Crimp contact, Contact surface: Gold plated</p>	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 000 6124 09 15 000 6123 09 15 000 6125 09 15 000 6122 09 15 000 6121 09 15 000 6126	09 15 000 6224 09 15 000 6223 09 15 000 6225 09 15 000 6222 09 15 000 6221 09 15 000 6226	<table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	Ø	Stripping length	0.14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm
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1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm																													
2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm																													
<p>FO contact, for 1 mm plastic fibre</p>		20 10 001 3211	20 10 001 3221	<p>20 10 001 3211 + 20 10 001 3221</p>																												

## Features

- Easy handling of signal connectors in industrial environment
- High density of contacts
- Suitable for standard D-Sub crimp contacts
- One preleading contact

## Technical characteristics

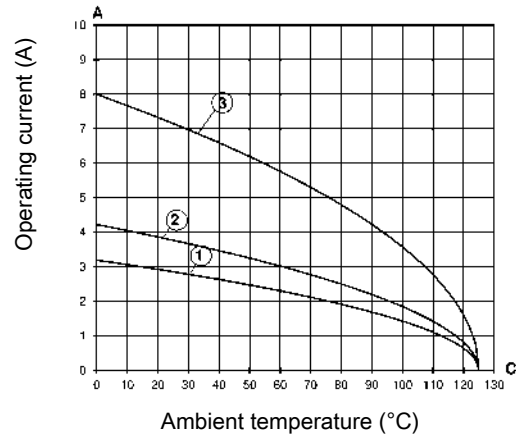
Number of contacts	21
Rated current	6.5 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Rated voltage	50 V AC, 120 V DC
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 10 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Stamped contacts Conductor cross-section 0.14 mm<sup>2</sup>
- ② Stamped contacts Conductor cross-section 0.25 mm<sup>2</sup>
- ③ Turned contacts Conductor cross-section 0.5 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


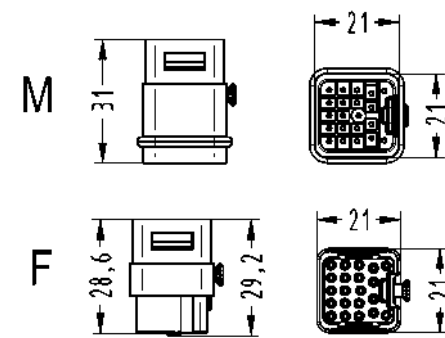

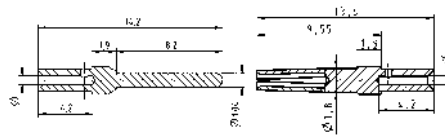
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts

# 21

6.5 A 50 V 0.8 kV 3

Han Q

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																								
		Male	Female																									
Han® Q, High Density, Crimp termination  <p>Please order crimp contacts separately.</p>	0.09 ... 0.56	09 12 021 3001	09 12 021 3101																									
D-Sub, Standard, Crimp contact 	0.09 ... 0.25 0.09 ... 0.25 0.13 ... 0.33 0.25 ... 0.52 0.25 ... 0.52	09 67 000 7576 09 67 000 7176 09 67 000 5576 09 67 000 8576 09 67 000 8176	09 67 000 7476 09 67 000 7276 09 67 000 5476 09 67 000 8476 09 67 000 8276	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.09-0.25 mm<sup>2</sup></td> <td>0.64 mm</td> <td>4 mm</td> </tr> <tr> <td>0.13-0.33 mm<sup>2</sup></td> <td>0.86 mm</td> <td>4 mm</td> </tr> <tr> <td>0.25-0.52 mm<sup>2</sup></td> <td>1.13 mm</td> <td>4 mm</td> </tr> <tr> <td>0.33-0.82 mm<sup>2</sup></td> <td>1.34 mm</td> <td>4 mm</td> </tr> </tbody> </table> <p>for stranded wire according IEC 60228 Class 5</p> <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>max. insulation diameter</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.09-0.25 mm<sup>2</sup></td> <td>1.02 mm</td> <td>2.5 mm + 0.5</td> </tr> <tr> <td>0.25-0.52 mm<sup>2</sup></td> <td>1.52 mm</td> <td>2.5 mm + 0.5</td> </tr> </tbody> </table>	Conductor cross-section	ø	Stripping length	0.09-0.25 mm <sup>2</sup>	0.64 mm	4 mm	0.13-0.33 mm <sup>2</sup>	0.86 mm	4 mm	0.25-0.52 mm <sup>2</sup>	1.13 mm	4 mm	0.33-0.82 mm <sup>2</sup>	1.34 mm	4 mm	Conductor cross-section	max. insulation diameter	Stripping length	0.09-0.25 mm <sup>2</sup>	1.02 mm	2.5 mm + 0.5	0.25-0.52 mm <sup>2</sup>	1.52 mm	2.5 mm + 0.5
Conductor cross-section	ø	Stripping length																										
0.09-0.25 mm <sup>2</sup>	0.64 mm	4 mm																										
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Conductor cross-section	max. insulation diameter	Stripping length																										
0.09-0.25 mm <sup>2</sup>	1.02 mm	2.5 mm + 0.5																										
0.25-0.52 mm <sup>2</sup>	1.52 mm	2.5 mm + 0.5																										

## Features

- Combination connector: Ethernet connector based on RJ45 with up to 10 signal D-Sub contacts, crimp termination
- Turned D-Sub contacts of performance level 1
- Compact design saves space
- High density of contacts

## Technical characteristics

Number of contacts	8
Rated current	5 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 10 \text{ m}\Omega$
Limiting temperature	-40 ... +85 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Specifications and approvals

EN 60664-1  
IEC 61984


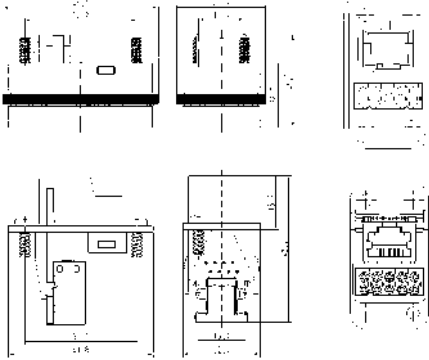



Number of contacts

# 8

5 A 50 V 0.8 kV 3

Han Q

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)															
		Male	Female																
Han® Q, Data RJ45, Crimp termination  <p>Please order crimp contacts separately.</p>	0.13 ... 0.52	09 12 011 3001	09 12 011 3111																
D-Sub, Standard, Crimp contact 	0.13 ... 0.33 0.25 ... 0.52	09 67 000 5576 09 67 000 8576	09 67 000 5476 09 67 000 8476	<table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>∅</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.09-0.25 mm<sup>2</sup></td> <td>0.64 mm</td> <td>4 mm</td> </tr> <tr> <td>0.13-0.33 mm<sup>2</sup></td> <td>0.85 mm</td> <td>4 mm</td> </tr> <tr> <td>0.25-0.52 mm<sup>2</sup></td> <td>1.13 mm</td> <td>4 mm</td> </tr> <tr> <td>0.33-0.82 mm<sup>2</sup></td> <td>1.34 mm</td> <td>4 mm</td> </tr> </tbody> </table> <p>for stranded wire according IEC 60228 Class 5</p>	Conductor cross-section	∅	Stripping length	0.09-0.25 mm <sup>2</sup>	0.64 mm	4 mm	0.13-0.33 mm <sup>2</sup>	0.85 mm	4 mm	0.25-0.52 mm <sup>2</sup>	1.13 mm	4 mm	0.33-0.82 mm <sup>2</sup>	1.34 mm	4 mm
Conductor cross-section	∅	Stripping length																	
0.09-0.25 mm <sup>2</sup>	0.64 mm	4 mm																	
0.13-0.33 mm <sup>2</sup>	0.85 mm	4 mm																	
0.25-0.52 mm <sup>2</sup>	1.13 mm	4 mm																	
0.33-0.82 mm <sup>2</sup>	1.34 mm	4 mm																	

## Features

- Hoods/housings for industrial applications
- Compact design saves space

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP65
Type rating acc. to UL 50 / UL 50E	4, 4X, 12
Material (hood/housing)	Polycarbonate (PC)
Colour (hood/housing)	RAL 9005 (jet black)
Material (seal)	NBR
Material (locking)	Polyamide (PA)
Colour (locking)	RAL 9005 (jet black)
Material flammability class acc. to UL 94	V-0
Material flammability class acc. to UL 94 (locking levers)	V-0
RoHS	compliant with exemption, compliant


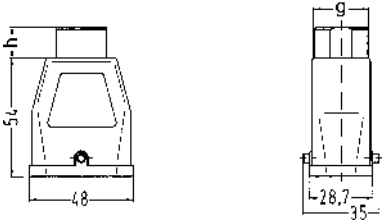


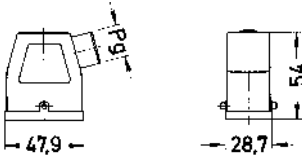

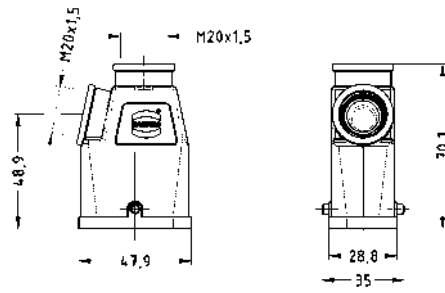
## Specifications and approvals


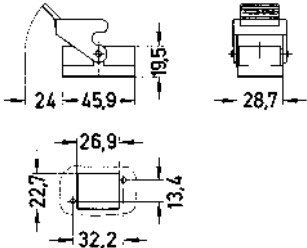

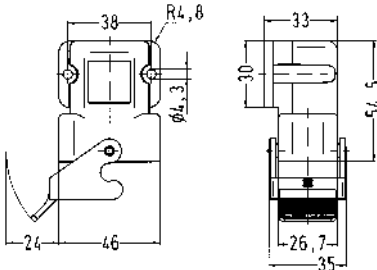

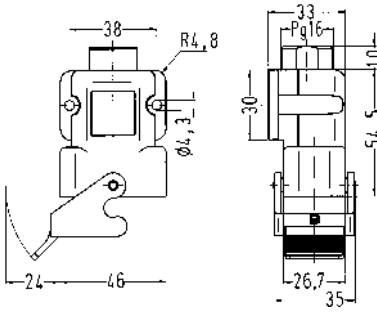

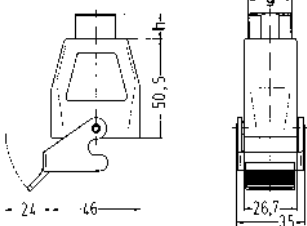

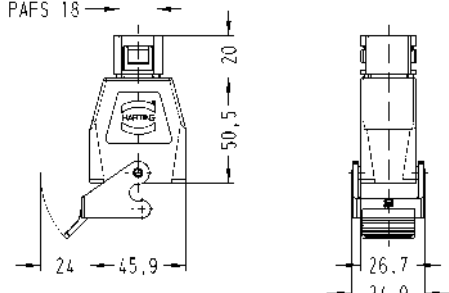
UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL



Hoods/housings for industrial applications  
Single locking lever


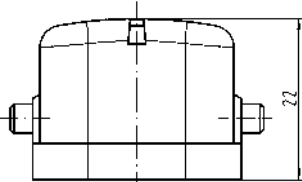

Han Q

Identification	Cable entry	Part number	Drawing (dimensions in mm)
Han-Compact®, Hood, for Han-Compact® half cable gland, Top entry, IP65  	1x M25 1x Pg 16 1x Pg 21	19 12 008 0429 09 12 008 0427 09 12 008 0429	
Han-Compact®, Hood, for flexible conduits Adaptaflex PAFS18, Top entry, IP65  	1x PAFS 18	09 12 008 0428	
Han-Compact®, Hood, for Han-Compact® half cable gland, Side entry, IP65  	1x Pg 16	09 12 008 0527	
Han-Compact®, Hood, Top/side entry, IP65  	2x M20	19 12 008 0425	

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han-Compact®, Bulkhead mounted housing, Straight, IP65</p> 		09 12 008 0327	
<p>Han-Compact®, Bulkhead mounted housing, Angled, IP65</p> 		09 12 008 0902	
<p>Han-Compact®, Surface mounted housing, for Han-Compact® half cable gland, Angled entry, IP65</p> 	1x Pg 16	09 12 008 0901	
<p>Han-Compact®, Cable to cable housing, for Han-Compact® half cable gland, Top entry, IP65</p> 	1x M25 1x Pg 16	19 12 008 0729 09 12 008 0727	
<p>Han-Compact®, Cable to cable housing, for flexible conduits Adaptaflex PAFS18, Top entry, IP65</p> 	1x PAFS 18	09 12 008 0728	



Han Q

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han-Compact®, Protection cover, for bulkhead mounted housings, Thermoplastic, IP65</p> 		09 12 008 5407	
<p>for mounted male insert</p> <p>Han-Compact®, Protection cover, for bulkhead mounted housings, Thermoplastic, IP65</p> 		09 12 008 5408	
<p>for mounted female insert</p>			

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP65
Type rating acc. to UL 50 / UL 50E	12
Material (hood/housing)	Zinc die-cast
Surface (hood/housing)	Powder-coated, Chromated
Colour (hood/housing)	RAL 9005 (jet black)
Material (seal)	NBR
Material (locking)	Stainless steel
RoHS	compliant

## Specifications and approvals



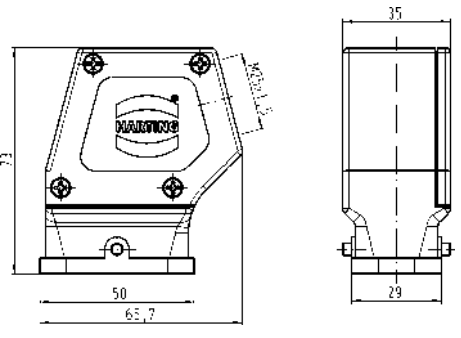

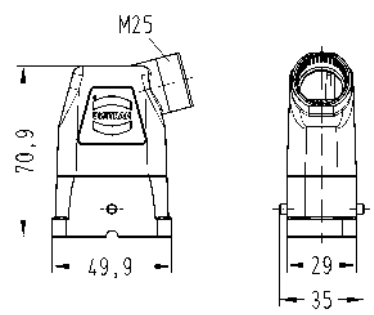

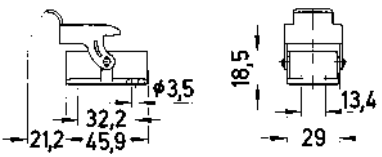
UL 1977 ECBT2.E235076  
 UL 2237 PVVA2.E318390  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 CSA-C22.2 No. 182.3 PVVA8.E318390  
 DNV GL







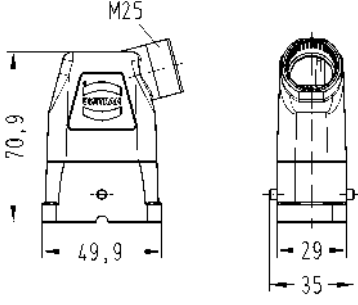

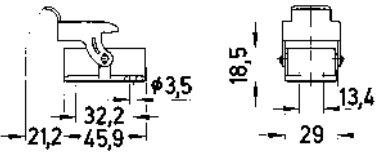
Hoods/housings for industrial applications  
Single locking lever

Han Q

Identification	Cable entry	Part number	Drawing (dimensions in mm)
Han-Compact®, Hood, for Han-Compact® half cable gland, With separate PE terminating point, for all inserts of size Han-Compact®, Top entry, IP65  	1x M25	19 12 708 0411	
Han-Compact®, Hood, for standard cable gland, With separate PE terminating point, for all inserts of size Han-Compact®, Side entry, IP65  	1x M25	19 12 008 0526	
Han-Compact®, Hood, for Han-Compact® half cable gland, With separate PE terminating point, for all inserts of size Han-Compact®, Side entry, IP65  	1x M25	19 12 708 0511	
Han-Compact®, Bulkhead mounted housing, IP65  		09 12 708 0301	

Hoods/housings for industrial applications  
Single locking lever

Han Q

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han-Compact®, Hood, for Han-Compact® half cable gland, With separate PE terminating point, for all inserts of size Han-Compact®, Top entry, IP65</p> 	<p>1x M25</p>	<p>19 12 008 0411</p>	
<p>Han-Compact®, Hood, for Han-Compact® half cable gland, With separate PE terminating point, for all inserts of size Han-Compact®, Side entry, IP65</p> 	<p>1x M25</p>	<p>19 12 008 0511</p>	
<p>Han-Compact®, Bulkhead mounted housing, IP65</p> 		<p>09 12 008 0301</p>	

## Features

- Hoods/Housings for higher EMC requirements
- Separate PE connection option
- High degree of flexibility due to two-part assembly

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP65
Type rating acc. to UL 50 / UL 50E	12
Material (hood/housing)	Zinc die-cast
Surface (hood/housing)	Nickel plated
Material (seal)	NBR
Material (locking)	Stainless steel
RoHS	compliant, compliant with exemption

## Specifications and approvals

UL 1977 ECBT2.E235076  
 UL 2237 PVVA2.E318390  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 CSA-C22.2 No. 182.3 PVVA8.E318390  
 DNV GL


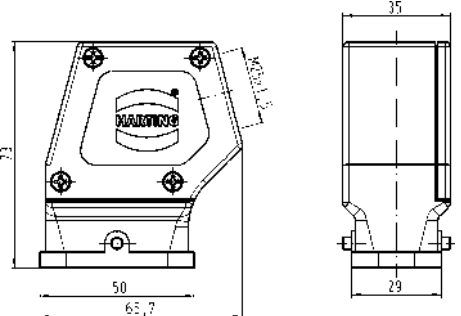

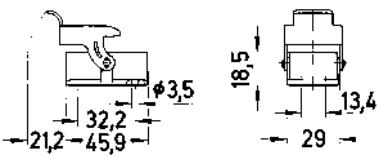


Hoods/Housings for higher EMC requirements  
Single locking lever

Identification	Cable entry	Part number	Drawing (dimensions in mm)
Han-Compact®, Hood, for Han-Compact® half cable gland, With separate PE terminating point, for all inserts of size Han-Compact®, Top entry, IP65	1x M25	19 12 008 0412	
Han-Compact®, Hood, for standard cable gland, With separate PE terminating point, for all inserts of size Han-Compact®, Top entry, IP65	1x M25	19 12 008 0428	
Han-Compact®, Hood, for Han-Compact® half cable gland, With separate PE terminating point, for all inserts of size Han-Compact®, Side entry, IP65	1x M25	19 12 008 0512	



Han Q


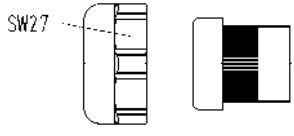

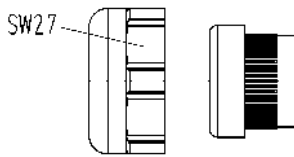

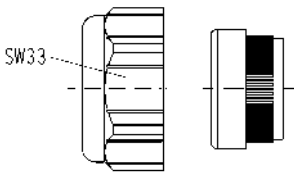
Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han-Compact®, Hood, for standard cable gland, With separate PE terminating point, for all inserts of size Han-Compact®, Side entry, IP65</p> 	<p>1x M25</p>	<p>19 12 008 0528</p>	
<p>Han-Compact®, Bulkhead mounted housing, IP65</p> 		<p>09 12 008 0303</p>	

## Technical characteristics

Limiting temperature -40 ... +100 °C  
 Degree of protection acc. to IEC IP65  
 60529


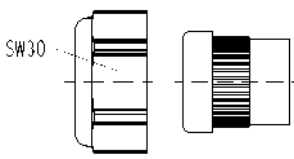
## Technical characteristics

Material (cable glands) Thermoplastic  
 Colour (accessories) Black  
 RoHS compliant, compliant with exemption

Identification	Size	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Han-Compact®, Cable gland, for hoods, for cable to cable housing, Pg 16, IP65 	Pg 16 Pg 16 Pg 16	6.5 ... 9.5 9 ... 13 11.5 ... 15.5	09 00 000 5047 09 00 000 5156 09 00 000 5059	SW27 
Han-Compact®, Cable gland, for surface mounted housings, Pg 16, IP65 	Pg 16 Pg 16	6.5 ... 9.5 11.5 ... 15.5	09 00 000 5057 09 00 000 5058	SW27 
Han-Compact®, Cable gland, for hoods, for cable to cable housing, Pg 21, IP65 	Pg 21 Pg 21	14 ... 18 17 ... 20.5	09 00 000 5157 09 00 000 5158	SW33 



Han Q


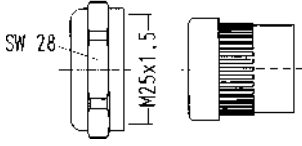

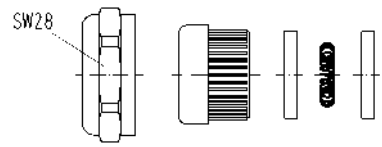
Identification	Size	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Compact®, Cable gland, for hoods, for cable to cable housing, M25, IP65</p> 	<p>M25 M25 M25</p>	<p>6.5 ... 9.5 10.5 ... 14 14 ... 17</p>	<p>19 12 000 5156 19 12 000 5157 19 12 000 5158</p>	

## Technical characteristics

Limiting temperature -40 ... +130 °C  
 Degree of protection acc. to IEC IP65  
 60529

## Technical characteristics

Material (cable glands) Metal  
 RoHS compliant with exemption

Identification	Size	Clamping range (mm)	Part number	Drawing (dimensions in mm)																
Han-Compact® Cable gland, for hoods, IP65 	M25	10.5 ... 14	19 12 000 5057																	
	M25	14 ... 17	19 12 000 5058																	
Han-Compact® Cable gland, EMC version, for hoods 	M25	10.5 ... 14	19 62 000 5056	 <table border="1"> <thead> <tr> <th></th> <th>Cable</th> <th>Shielding</th> <th>SW</th> </tr> </thead> <tbody> <tr> <td>19 62 000 5056</td> <td>10.5 ... 14 mm</td> <td>9 ... 13 mm</td> <td>28</td> </tr> <tr> <td>19 62 000 5057</td> <td>10.5 ... 14 mm</td> <td>6 ... 11 mm</td> <td>28</td> </tr> <tr> <td>19 62 000 5058</td> <td>14 ... 17 mm</td> <td>9 ... 13 mm</td> <td>28</td> </tr> </tbody> </table>		Cable	Shielding	SW	19 62 000 5056	10.5 ... 14 mm	9 ... 13 mm	28	19 62 000 5057	10.5 ... 14 mm	6 ... 11 mm	28	19 62 000 5058	14 ... 17 mm	9 ... 13 mm	28
		Cable	Shielding		SW															
	19 62 000 5056	10.5 ... 14 mm	9 ... 13 mm		28															
19 62 000 5057	10.5 ... 14 mm	6 ... 11 mm	28																	
19 62 000 5058	14 ... 17 mm	9 ... 13 mm	28																	
M25	10.5 ... 14	19 62 000 5057																		
M25	14 ... 17	19 62 000 5058																		

Han Q

## Technical characteristics

Material (seal) NBR  
 Colour (seal) Black

## Technical characteristics

Material (accessories) Thermoplastic  
 Colour (accessories) Black  
 RoHS compliant

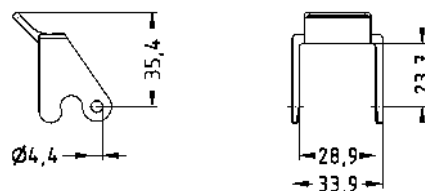
Identification	Size	Part number	Drawing (dimensions in mm)
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Locking levers,  
 Han® Q 8/0,  
 Black



Han-Compact®

09 00 000 5244

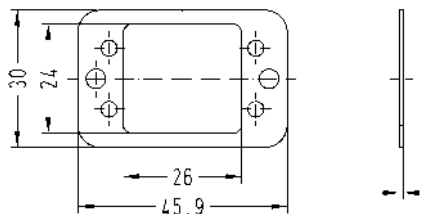


Flange gasket,  
 for bulkhead mounted plastic housings,  
 angled,  
 for surface mounted housings



Han-Compact®

09 12 000 9911

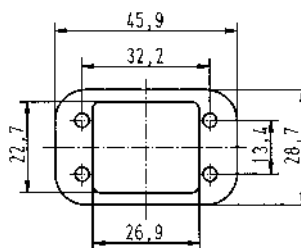


Flange gasket,  
 for bulkhead mounted plastic housings,  
 straight



Han-Compact®

09 12 000 9912



Contents	Page
Han® K 3/0.....	<b>Han 14.4</b>
Han® K 3/2.....	<b>Han 14.6</b>
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Han® HC Modular 250.....	<b>Han 14.11</b>
Hoods/Housings for Han® HC Modular 250 .....	<b>Han 14.13</b>
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Hoods/Housings for Han® HC Modular 350 .....	<b>Han 14.29</b>
Han® M hoods/housings for Han® HC Modular 350.....	<b>Han 14.47</b>
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Han® 24 HPR EasyCon.....	<b>Han 14.60</b>
Han® 24 HPR EasyCon - Accessories .....	<b>Han 14.70</b>
Han® 48 HPR .....	<b>Han 14.72</b>

## Assembly instructions

Remarks on the axial screw termination see chapter 00

Step 1: The outer diameter of the cable must not exceed 19.5 mm.

Strip the cable by 19 mm.

Insert the cable through hood.

Step 2: Press the Han HC contact on the cable strand and apply tightening torque according table 1 by using a tightening torques tool. Take care that all cable strands fit completely inside the contact termination cavity. During assembling adhere the cable and the contact to minimise axial movement or twisting.

Step 3: Move the perforated plate across the HC contacts.

Step 4: Fit frame onto the hexagon shape of the HC contact. Coding can be arranged by turning the contact within 60° steps. Bolt the frame together with perforated plate.

Step 5: Push back the packet inside the good.

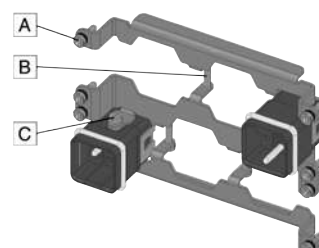
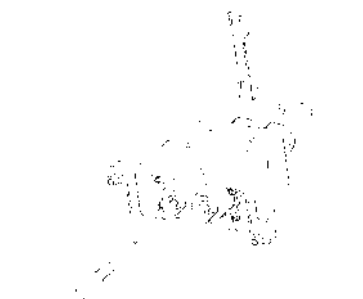
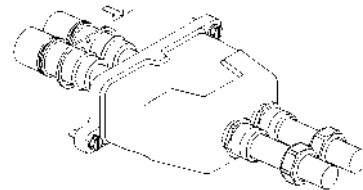
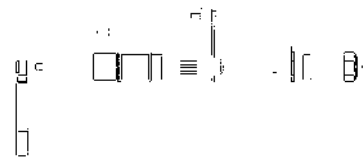
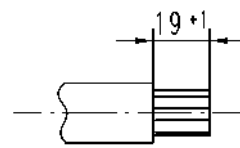
Step 6: Tighten the four M3 (tightening torque 0.5 Nm) screws and the cable gland according manufacturer recommendation.

During the assembly of the frame for 4 poles the following tightening torques have to be taken into consideration:

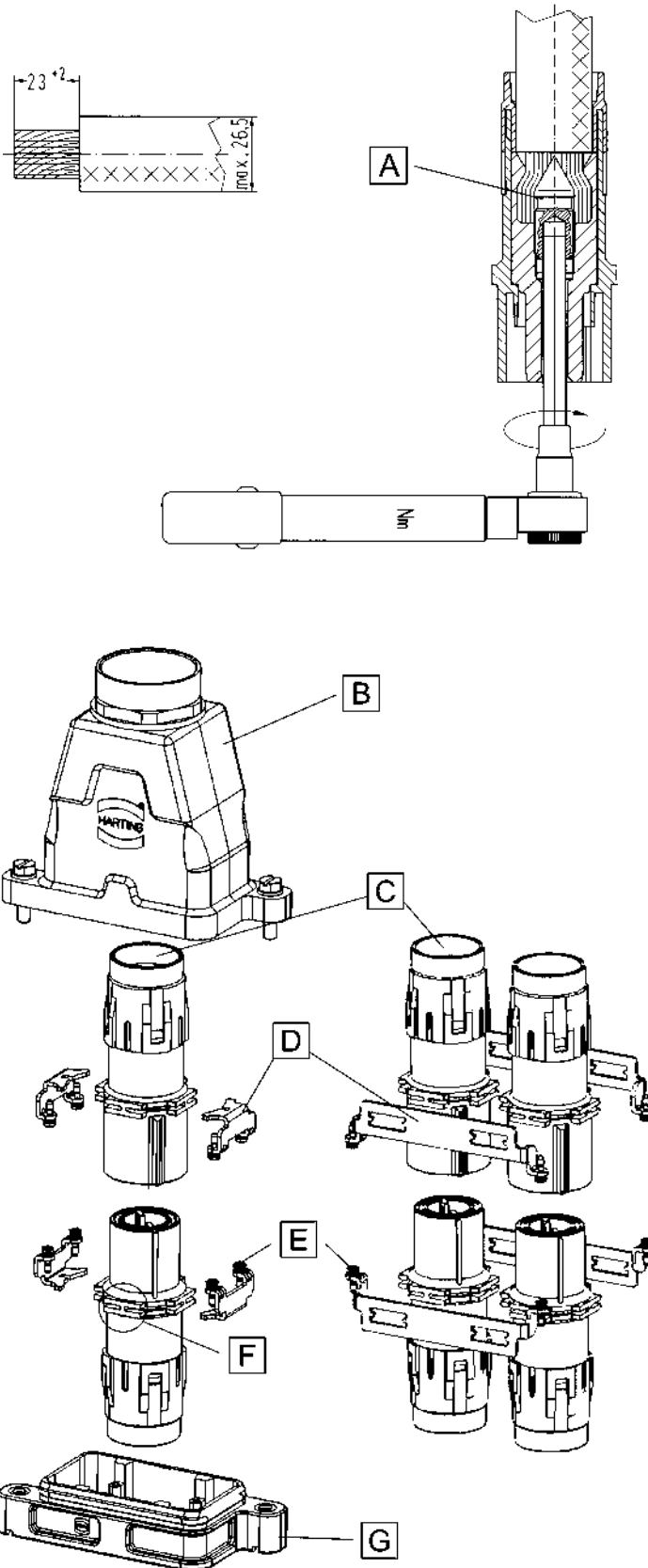
A = 0.5 Nm

B = 1.5 Nm

C = 0.25 Nm



Assembly instructions



1. Strip cable to 23±2 mm.

2. Push conductor through the cable gland and the housing. Push the stripped end of the conductor into the termination entry of the module until the insulation touches the contact.

3. To tighten the axial screw, a hexagonal wrench size 8 is needed. Insert the hexagonal wrench on the mating side of the contact. At the same time, push the conductor over the axial screw. The locking screw has to be tightened with the recommended tightening torque that is determined by the conductor's cross section.

4. Once the modules are terminated, they are mounted into the housing by using two metal frames (tightening torque of the fixing screws = 0.5 Nm). The modules have 4 pegs formed by 2 parallel ribs (each peg shapes like a "H"). Each rib takes 1 pole frame, where the lateral link has to go into the relief of the frame. The 2 pole frames have 2 cutouts on the wall which get fitted to the "H"-shaped pegs (see figure). The heads of the screws have to face the mating direction of the module. Coding can be established by rotating the contact by 90 degrees. Therefore it is important that the corresponding modules are assembled in the correct position otherwise mating is not possible.

5. After assembling the modules in the housing, the tightening torque of the locking screw can be checked and corrected if necessary.

6. After final assembly of the contacts, the user should ensure that the cable is adequately strain relieved to protect the contact from radial stress.

A - Axial screw, B - Hood, C - Termination entry, D - Frame, E - Fixing screws, F - parallel ribs with H-shape, G - Housings bulkhead mounting,

## Features

- The ideal connector for transmission of high currents requiring little space
- The vertical and angled versions offer solutions for almost all applications
- The angled versions offer a space-saving 90° cable wiring

## Technical characteristics

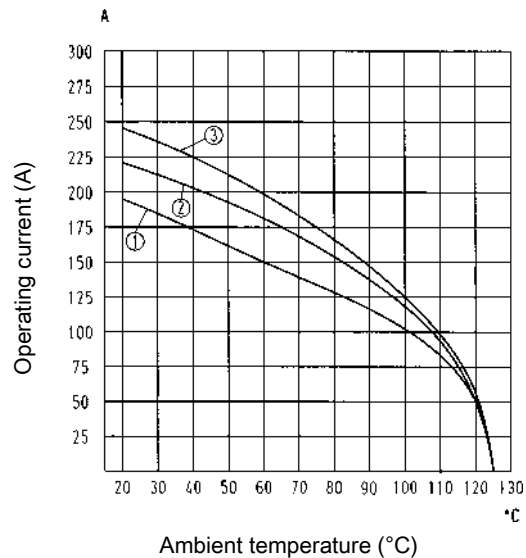
Number of contacts	3
Rated current	200 A
Rated voltage conductor-earth	1150 V
Rated voltage conductor-conductor	2000 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated current acc. to UL	200 A
Rated current acc. to CSA	160 A
Rated voltage acc. to UL	600 V
Rated voltage acc. to CSA	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 0.2 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 35 mm<sup>2</sup>
- ② Conductor cross-section 50 mm<sup>2</sup>
- ③ Conductor cross-section 70 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
DNV GL

## Details

ATTENTION! Only to be used with special Han® 24 HPR hoods and housings!

### Remarks on the axial screw technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Hex key (A/F 5) see chapter Han 90


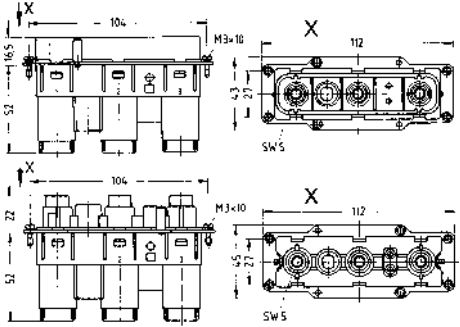

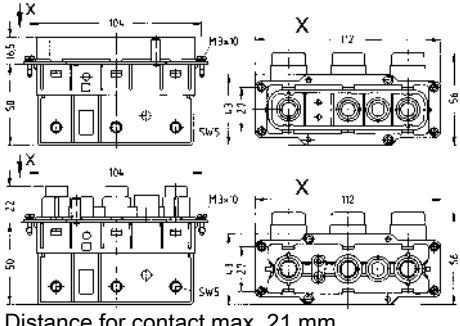
Number of contacts

3

200 A 1.150/2.000 V 8 kV 3



Han  
HC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han-Com®, Han® K 3/0, Straight, Axial screw termination, Contact surface: Silver plated</p> 	35 ... 70	09 38 005 2621	09 38 005 2721	 <p>Distance for contact max. 21 mm Stripping length 22 mm Tightening torque 8 Nm @ 35 mm<sup>2</sup>, 9 Nm @ 50 mm<sup>2</sup>, 10 Nm @ 70 mm<sup>2</sup></p>
<p>Han-Com®, Han® K 3/0, Angled, Axial screw termination, Contact surface: Silver plated</p> 	35 ... 70	09 38 005 2622	09 38 005 2722	 <p>Distance for contact max. 21 mm Stripping length 22 mm Tightening torque 8 Nm @ 35 mm<sup>2</sup>, 9 Nm @ 50 mm<sup>2</sup>, 10 Nm @ 70 mm<sup>2</sup></p>



## Features

- The ideal connector for transmission of high currents requiring little space
- The vertical and angled versions offer solutions for almost all applications
- The angled versions offer a space-saving 90° cable wiring

## Technical characteristics

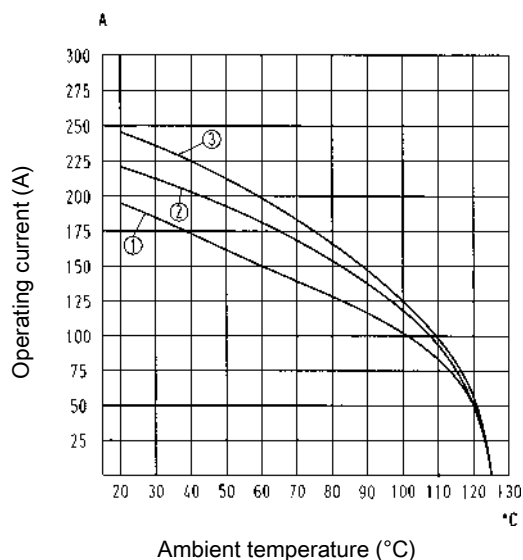
Number of contacts	3
Additional contacts	+ 2 additional signal contacts
Rated current	200 A
Rated voltage conductor-earth	1150 V
Rated voltage conductor-conductor	2000 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated current (signal)	16 A
Rated voltage (signal)	400 V
Rated impulse voltage (signal)	6 kV
Pollution degree (signal)	3
Rated current acc. to UL	200 A
Rated current acc. to UL (signal)	16 A
Rated current acc. to CSA	160 A
Rated current acc. to CSA (signal)	16 A
Rated voltage acc. to UL	600 V
Rated voltage acc. to UL (signal)	600 V
Rated voltage acc. to CSA	600 V
Rated voltage acc. to CSA (signal)	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤0.2 mΩ
Contact resistance, signal area	≤1 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 35 mm<sup>2</sup>
- ② Conductor cross-section 50 mm<sup>2</sup>
- ③ Conductor cross-section 70 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
DNV GL

## Details

ATTENTION! Only to be used with special Han® 24 HPR hoods and housings!

### Remarks on the axial screw technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

**Hex key (A/F 5)** see chapter Han 90


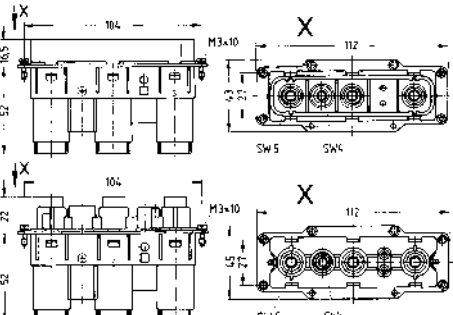

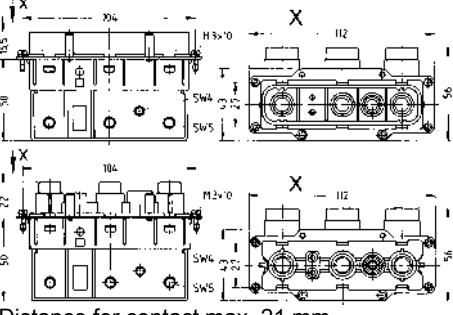
**Hex key (A/F 4) for PE contact** see chapter Han 90

Number of contacts

3+

200 A 1.150/2.000 V 8 kV 3  
 16 A 400 V 6 kV 3  
 + 2 additional signal contacts

Han  
 HC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han-Com®, Han® K 3/2, Straight, Axial screw termination / screw termination, Contact surface: Silver plated 	35 ... 70, 0.5 ... 2.5 Signal, 16 ... 35 PE	09 38 005 2601	09 38 005 2701	 <p>Distance for contact max. 21 mm                      Stripping length 22 mm                      Tightening torque 8 Nm @ 35 mm<sup>2</sup>, 9 Nm @ 50 mm<sup>2</sup>, 10 Nm @ 70 mm<sup>2</sup>                      Signal contacts: Stripping length 7 mm,                      Tightening torque 0.5 Nm                      PE contact: Stripping length 14 mm, Tightening torque 6 Nm</p>
Han-Com®, Han® K 3/2, Angled, Axial screw termination / screw termination, Contact surface: Silver plated 	35 ... 70, 0.5 ... 2.5 Signal, 16 ... 35 PE	09 38 005 2602	09 38 005 2702	 <p>Distance for contact max. 21 mm                      Stripping length 22 mm                      Tightening torque 8 Nm @ 35 mm<sup>2</sup>, 9 Nm @ 50 mm<sup>2</sup>, 10 Nm @ 70 mm<sup>2</sup>                      Signal contacts: Stripping length 7 mm,                      Tightening torque 0.5 Nm                      PE contact: Stripping length 14 mm, Tightening torque 6 Nm</p>

## Features

- Hoods/housings for harsh outdoor environments
- Metal hoods and housings with excellent corrosion resistance
- Corrosion resistance ASTM B117-09 (500 h)
- Excellent EMC characteristics
- Screw locking M6
- Field of application: for external electrical interconnections in vehicles, in highly demanding environments and wet areas, as well as for sensitive interconnections that have to be shielded
- Distinguishing feature: colour-coded black, internal seal

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Tightening torque (screw locking)	4 Nm
Degree of protection acc. to IEC 60529	IP65, IP68, IP69 / IPX9K acc. to ISO 20653
Type rating acc. to UL 50 / UL 50E	4, 4X, 12
Material (hood/housing)	Aluminium die-cast, Corrosion resistant
Surface (hood/housing)	Powder-coated
Colour (hood/housing)	RAL 9005 (jet black)
Material (seal)	NBR
Material (locking)	Stainless steel
RoHS	compliant, compliant with exemption


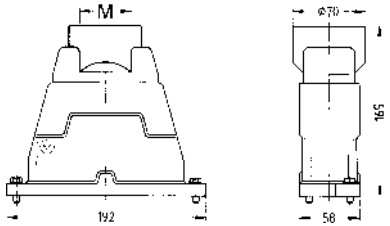

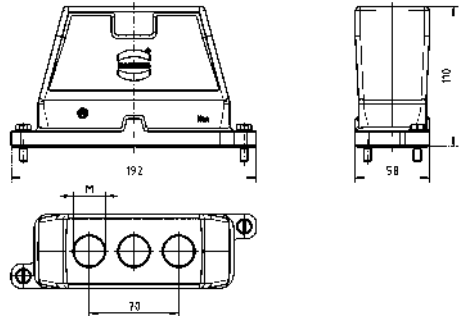

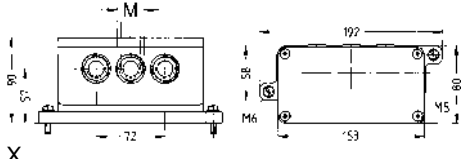

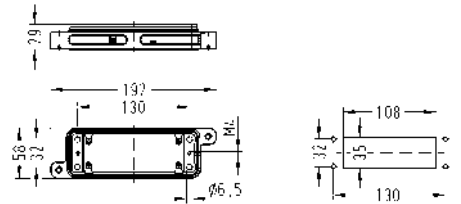
## Specifications and approvals

UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL


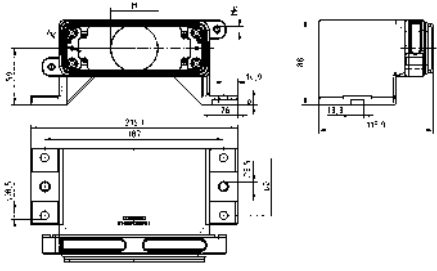

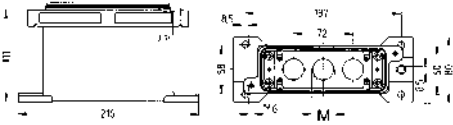


Hoods/housings for harsh outdoor environments  
Screw locking

Han  
HC

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Hood, Special type, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>1x M63</p>	<p>19 40 024 0420</p>	
<p>Han® HPR, Hood, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>3x M25 3x M25, 1x M20</p>	<p>19 40 024 0461 19 40 024 0471</p>	
<p>Han® HPR, Hood, Special type, Angled entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>3x M25</p>	<p>19 40 024 0631</p>	
<p>Han® HPR, Bulkhead mounted housing, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		<p>09 40 024 0311</p>	

Han  
HC

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Surface mounted housing, Horizontal version, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>1x M50 3x M25 3x M25, 1x M20</p>	<p>19 40 024 0914 19 40 024 0931 19 40 024 0971</p>	
<p>Han® HPR, Surface mounted housing, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>3x M25 3x M25, 1x M20</p>	<p>19 40 024 1231 19 40 024 1271</p>	

## Features

- Contacts for fine stranded wire
- Low mating forces
- Suitable for HPR® hoods and housings

## Technical characteristics

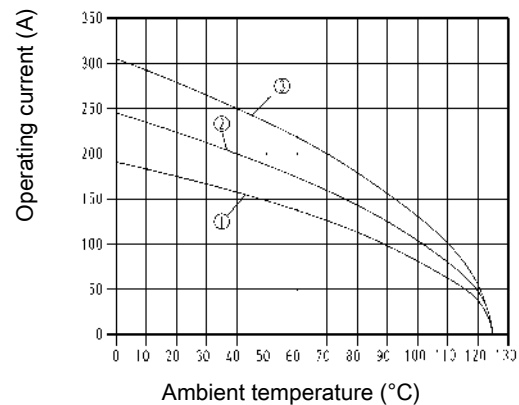
Rated current	250 A
Rated voltage	2000 V
Rated impulse voltage	12 kV
Pollution degree	3
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤0.3 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Wire outer diameter	≤18 mm
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 35 mm<sup>2</sup>  
 ② Conductor cross-section 50 mm<sup>2</sup>  
 ③ Conductor cross-section 70 mm<sup>2</sup>  
 4 contacts in Han® 24 HPR

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 EN 50124-1  
 DNV GL

## Details

**Removal tool** 09 99 000 0332 see chapter Han 90

For more technical details (i.e. number of crimping operations or crimping position) see eCatalogue


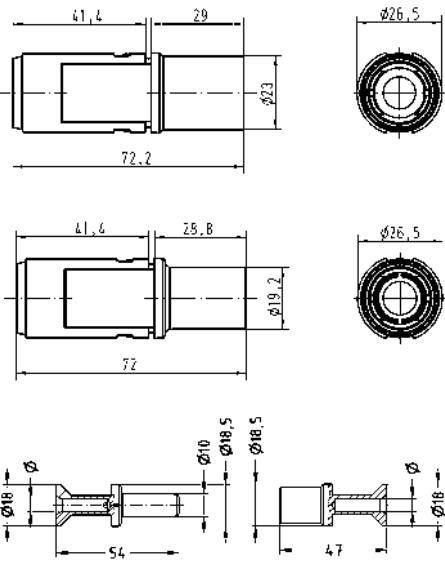


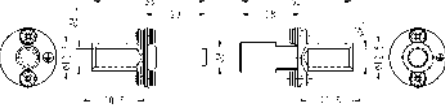
**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

250 A 2.000 V 12 kV 3

Han  
HC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																												
		Male	Female																													
Han® HC Modular, 250, Crimp termination  <p>Please order crimp contacts separately.</p>	10 ... 70	09 11 001 3021	09 11 001 3121																													
TC 250, Crimp contact, Contact surface: Silver plated 	10 16 25 35 50 70	09 11 000 6184 09 11 000 6185 09 11 000 6126 09 11 000 6127 09 11 000 6128 09 11 000 6129	09 11 000 6284 09 11 000 6285 09 11 000 6226 09 11 000 6227 09 11 000 6228 09 11 000 6229	<table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Tool identification</th> <th>Stripping length A</th> <th>Ø</th> </tr> </thead> <tbody> <tr> <td>10 mm<sup>2</sup></td> <td>6</td> <td>22 mm</td> <td>4.3 mm</td> </tr> <tr> <td>16 mm<sup>2</sup></td> <td>8</td> <td>22 mm</td> <td>5.5 mm</td> </tr> <tr> <td>25 mm<sup>2</sup></td> <td>10</td> <td>22 mm</td> <td>7 mm</td> </tr> <tr> <td>35 mm<sup>2</sup></td> <td>12</td> <td>22 mm</td> <td>8.45 mm</td> </tr> <tr> <td>50 mm<sup>2</sup></td> <td>14</td> <td>22 mm</td> <td>10.25 mm</td> </tr> <tr> <td>70 mm<sup>2</sup></td> <td>16</td> <td>22 mm</td> <td>11.75 mm</td> </tr> </tbody> </table> <p>for stranded wire according to IEC 60 228 Class 5</p>	Conductor cross-section	Tool identification	Stripping length A	Ø	10 mm <sup>2</sup>	6	22 mm	4.3 mm	16 mm <sup>2</sup>	8	22 mm	5.5 mm	25 mm <sup>2</sup>	10	22 mm	7 mm	35 mm <sup>2</sup>	12	22 mm	8.45 mm	50 mm <sup>2</sup>	14	22 mm	10.25 mm	70 mm <sup>2</sup>	16	22 mm	11.75 mm
Conductor cross-section	Tool identification	Stripping length A	Ø																													
10 mm <sup>2</sup>	6	22 mm	4.3 mm																													
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50 mm <sup>2</sup>	14	22 mm	10.25 mm																													
70 mm <sup>2</sup>	16	22 mm	11.75 mm																													
TC 250, PE contact, Crimp termination, Contact surface: Silver plated 	16 35	09 11 000 6190 09 11 000 6104	09 11 000 6290 09 11 000 6204																													

## Features

- Hoods/housings for harsh outdoor environments
- Metal hoods and housings with excellent corrosion resistance
- Corrosion resistance ASTM B117-09 (500 h)
- Excellent EMC characteristics
- Screw locking M6
- Field of application: for external electrical interconnections in vehicles, in highly demanding environments and wet areas, as well as for sensitive interconnections that have to be shielded

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Tightening torque (screw locking)	4 Nm
Degree of protection acc. to IEC 60529	IP65, IP68, IP69 / IPX9K acc. to ISO 20653
Type rating acc. to UL 50 / UL 50E	4, 4X, 12
Material (hood/housing)	Aluminium die-cast, Corrosion resistant
Surface (hood/housing)	Powder-coated
Colour (hood/housing)	RAL 9005 (jet black)
Material (seal)	NBR
Material (locking)	Stainless steel
Material (accessories)	Metal, Aluminium die-cast, Stainless steel, Aluminium compliant
RoHS	

## Specifications and approvals


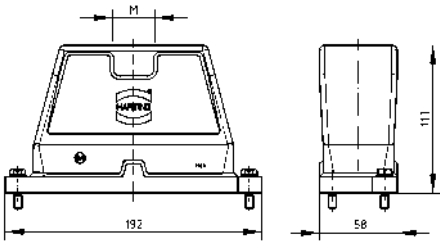


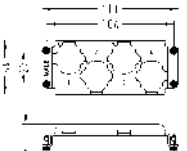
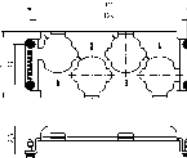
UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL






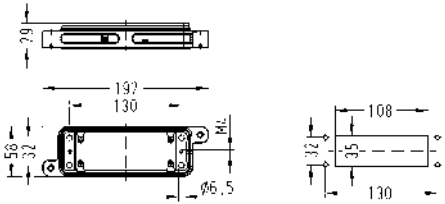

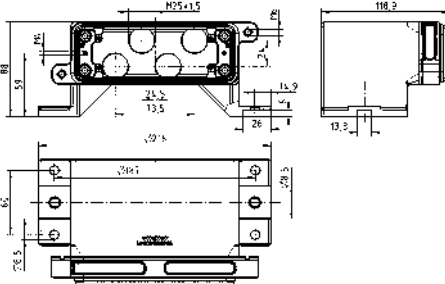
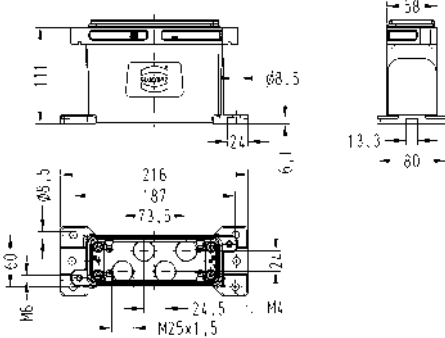
Hoods/housings for harsh outdoor environments  
Screw locking

Han  
HC

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Hood, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>4x M20 4x M25</p>	<p>19 40 024 0473 19 40 024 0474</p>	
<p>Han® HPR, Frame, for male inserts, 4x Han® HC Modular 250</p>  <p>Han® HPR, Frame, for female inserts, 4x Han® HC Modular 250</p> 		<p>09 11 000 9925</p> <p>09 11 000 9942</p>	 <p>Tightening torque Fixing screws M3: 0.5 Nm</p>  <p>Tightening torque Fixing screws M3: 0.5 Nm</p>

Hoods/housings for harsh outdoor environments  
Screw locking

Han  
HC

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Bulkhead mounted housing, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		09 40 024 0311	
<p>Han® HPR, Surface mounted housing, Horizontal version, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	4x M25	19 40 024 0941	
<p>Han® HPR, Surface mounted housing, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p>	4x M25	19 40 024 1242	



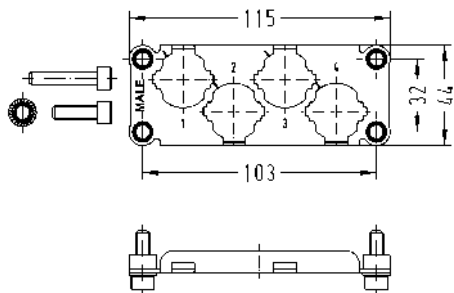


Han  
HC

Identification	Cable entry	Part number	Drawing (dimensions in mm)
Mounting frames, Han® HPR, Thread M6		09 40 000 9955	
Han® HPR, Frame, for female inserts, 4x Han® HC Modular 250		09 11 000 9926	<p>Tightening torque Fixing screws M3: 0.5 Nm</p>
Han® HPR, Frame, for male inserts, 4x Han® HC Modular 250		09 11 000 9941	<p>Tightening torque Fixing screws M3: 0.5 Nm</p>

Hoods/housings for harsh outdoor environments  
Screw locking


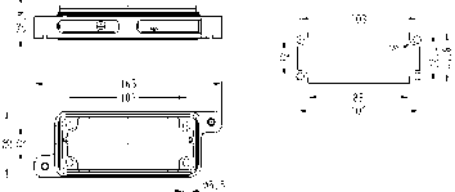

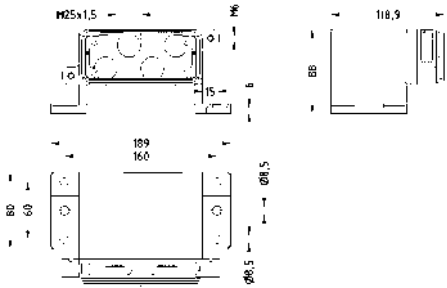

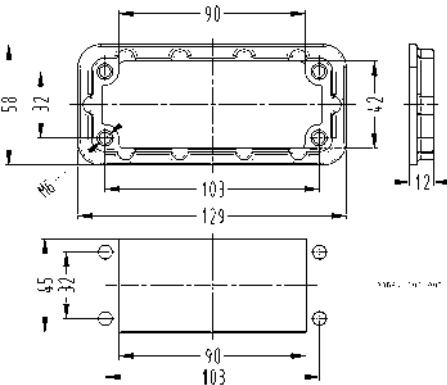
Han  
HC


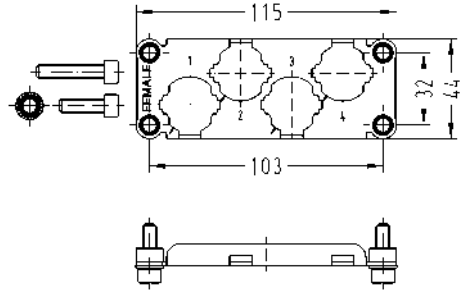
Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Hood, Enlarged, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>2x M40 4x M25</p>	<p>19 40 016 0471 19 40 016 0478</p>	
<p>Han® HPR enlarged, Frame, for male inserts, 4x Han® HC Modular 250, Pack contents: 4x cheese-head screw M6 x 20, 4x washer SK S6</p> 		<p>09 11 000 9937</p>	 <p>Tightening torque Fixing screws M6: 10 Nm</p>



Hoods/housings for harsh outdoor environments  
Screw locking

Han  
HC


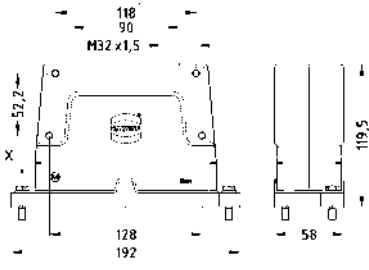

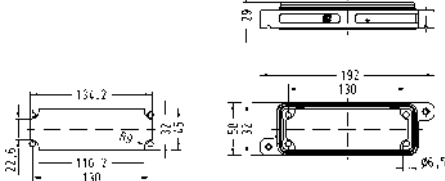

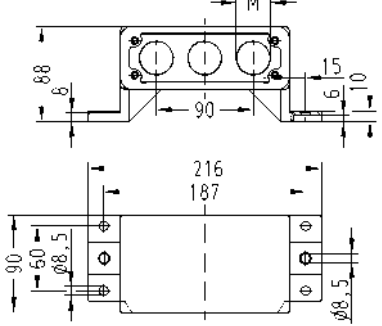

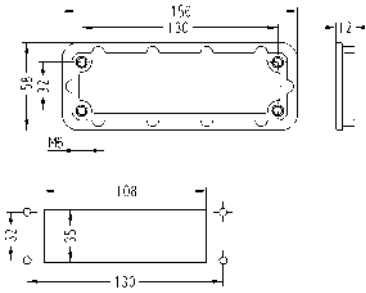
Identification	Cable entry	Part number	Drawing (dimensions in mm)
Han® HPR, Bulkhead mounted housing, Enlarged, IP65, IP68, IP69 / IPX9K acc. to ISO 20653  		09 40 016 0368	
Han® HPR, Surface mounted housing, Horizontal version, Enlarged, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653  	4x M25	19 40 016 0978	
Mounting frames, Han® HPR, Thread M6  		09 40 000 9956	

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR enlarged, Frame, for female inserts, 4x Han® HC Modular 250, Pack contents: 4x cheese-head screw M6 x 30, 4x washer SK S6</p> 		<p>09 11 000 9938</p>	 <p>Tightening torque Fixing screws M6: 10 Nm</p>


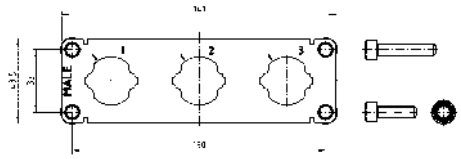

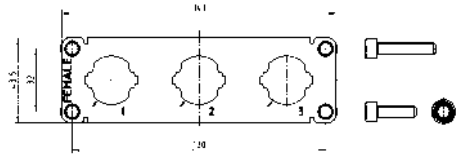
Han  
HC

Hoods/housings for harsh outdoor environments  
Screw locking

Han  
HC

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Hood, Enlarged, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	3x M32	19 40 024 0468	
<p>Han® HPR, Bulkhead mounted housing, Enlarged, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		09 40 024 0368	
<p>Han® HPR, Surface mounted housing, Horizontal version, Enlarged, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p>  <p>Bulkhead mounted housing 09 40 024 0368 not included, please order separately</p>	3x M32	19 40 024 0968	
<p>Mounting frames, Han® HPR, Thread M6</p> 		09 40 000 9904	 <p>Panel cut out</p>




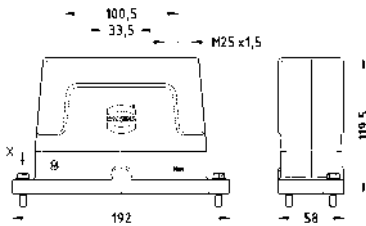

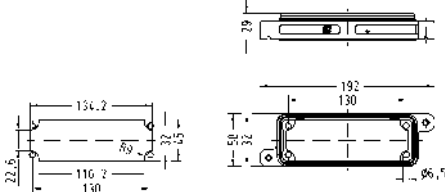

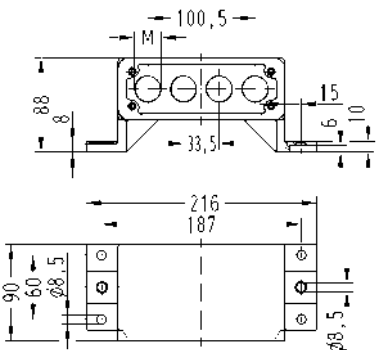

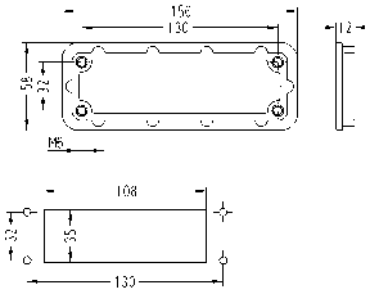
Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR enlarged, Frame, for male inserts, 3x Han® HC Modular 250, Pack contents: 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 25, 4x washer SK S6</p> 		09 11 000 9931	 <p>Tightening torque Fixing screw M6: 10 Nm</p>
<p>Han® HPR enlarged, Frame, for female inserts, 3x Han® HC Modular 250, Pack contents: 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 25, 4x washer SK S6</p> 		09 11 000 9932	 <p>Tightening torque Fixing screw M6: 10 Nm</p>


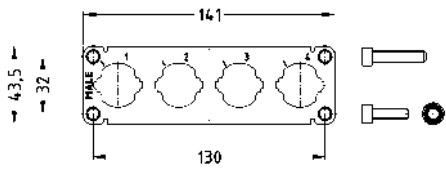

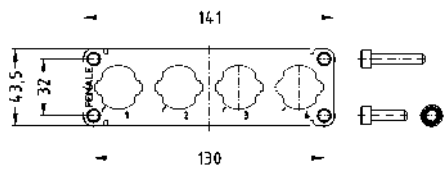
Han  
HC



Hoods/housings for harsh outdoor environments  
Screw locking

Han  
HC

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Hood, Enlarged, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	4x M25	19 40 024 0478	
<p>Han® HPR, Bulkhead mounted housing, Enlarged, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		09 40 024 0368	
<p>Han® HPR, Surface mounted housing, Horizontal version, Enlarged, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p>  <p>Bulkhead mounted housing 09 40 024 0368 not included, please order separately</p>	4x M25	19 40 024 0978	
<p>Mounting frames, Han® HPR, Thread M6</p> 		09 40 000 9904	 <p>Panel cut out</p>

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR enlarged, Frame, for male inserts, 4x Han® HC Modular 250, Pack contents: 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 25, 4x washer SK S6</p> 		09 11 000 9927	 <p>Tightening torque Fixing screws M6: 10 Nm</p>
<p>Han® HPR enlarged, Frame, for female inserts, 4x Han® HC Modular 250, Pack contents: 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 25, 4x washer SK S6</p> 		09 11 000 9928	 <p>Tightening torque Fixing screws M6: 10 Nm</p>

Han  
HC

## Features

- Contacts for fine stranded wire
- Low mating forces
- Suitable for HPR® hoods and housings
- UL approvals for axial-screw and screw termination

## Technical characteristics

Rated current	350 A
Rated voltage	2000 V
Rated impulse voltage	12 kV
Pollution degree	3
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤0.3 mΩ, ≤0.2 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Wire outer diameter	≤22 mm, ≤19.5 mm
Material (insert)	Polycarbonate (PC), Polyamide (PA)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

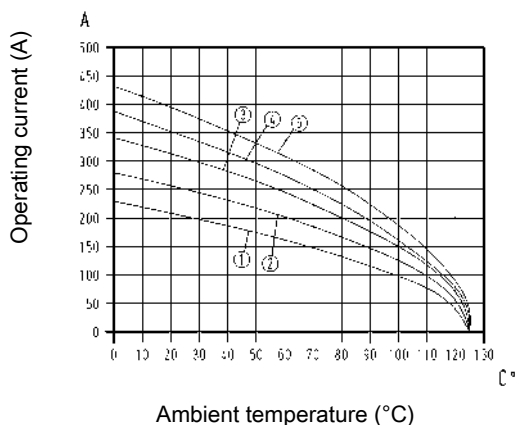
## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2

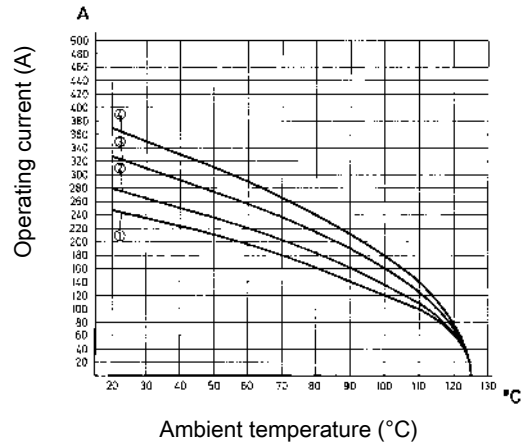
Crimp termination



- ① Conductor cross-section 35 mm<sup>2</sup>
  - ② Conductor cross-section 50 mm<sup>2</sup>
  - ③ Conductor cross-section 70 mm<sup>2</sup>
  - ④ Conductor cross-section 95 mm<sup>2</sup>
  - ⑤ Conductor cross-section 120 mm<sup>2</sup>
- Three contacts in Han® 24 HPR

## Derating

Axial screw termination  
Screw termination



- ① Conductor cross-section 50 mm<sup>2</sup>
  - ② Conductor cross-section 70 mm<sup>2</sup>
  - ③ Conductor cross-section 95 mm<sup>2</sup>
  - ④ Conductor cross-section 120 mm<sup>2</sup>
- Three contacts in Han® 24 HPR

## Specifications and approvals

EN 60664-1  
IEC 61984  
DNV GL  
UL 1977 ECBT2.E235076

## Details

Electrical data up to 350 A 4000 V 18 kV 3 by using a hexagonal adapter and the HARTING cable gland, in order to realise the clearance and creepage distance.

Contact resistance crimp contact: ≤ 0.3 mOhm

Contact resistance screw contact: ≤ 0.2 mOhm

Contact resistance axial screw contact: ≤ 0.2 mOhm

### Remarks on the axial screw technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Hex key (A/F 5) see chapter Han 90

For more technical details (i.e. number of crimping operations or crimping position) see eCatalogue


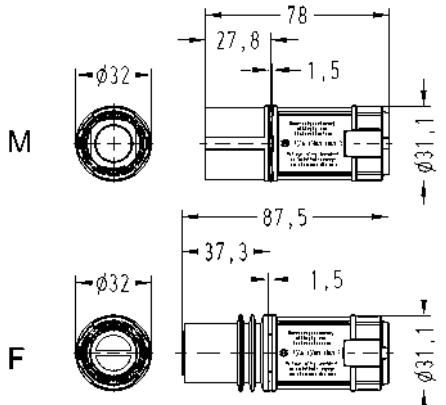

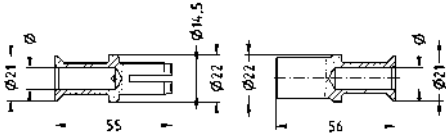
Crimping tools see chapter Han 90

### Remarks on the crimp technique


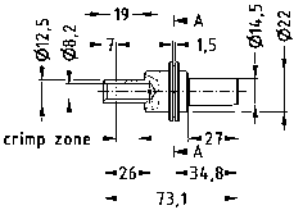
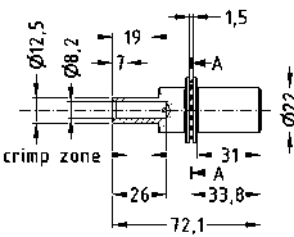
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

350 A 2.000 V 12 kV 3

Han  
HC


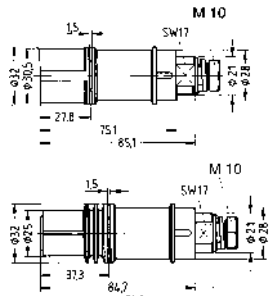

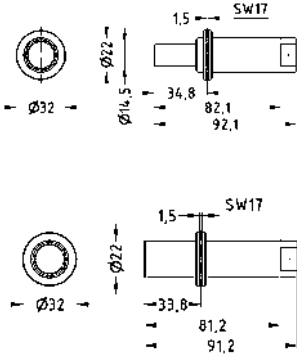
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																					
		Male	Female																						
Han® HC Modular, 350, Crimp termination  Please order crimp contacts separately.	25 ... 120	09 11 001 3001	09 11 001 3101	 <p>max. wire outer diameter 22 mm</p>																					
TC 350, Crimp contact, Contact surface: Silver plated 	25 35 50 70 95 120	09 11 000 6139 09 11 000 6140 09 11 000 6141 09 11 000 6142 09 11 000 6143 09 11 000 6144	09 11 000 6239 09 11 000 6240 09 11 000 6241 09 11 000 6242 09 11 000 6243 09 11 000 6244	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>∅</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>25 mm<sup>2</sup></td> <td>7</td> <td>26 mm</td> </tr> <tr> <td>35 mm<sup>2</sup></td> <td>8.2</td> <td>26 mm</td> </tr> <tr> <td>50 mm<sup>2</sup></td> <td>10</td> <td>28 mm</td> </tr> <tr> <td>70 mm<sup>2</sup></td> <td>11.5</td> <td>28 mm</td> </tr> <tr> <td>95 mm<sup>2</sup></td> <td>13.5</td> <td>30 mm</td> </tr> <tr> <td>120 mm<sup>2</sup></td> <td>15.5</td> <td>24 mm</td> </tr> </tbody> </table> <p>for stranded wire according to IEC 60 228 Class 5 for stranded wire according to IEC 60228 Class 5 Crimp zone acc. to DIN 46235</p>	Conductor cross-section	∅	Stripping length	25 mm <sup>2</sup>	7	26 mm	35 mm <sup>2</sup>	8.2	26 mm	50 mm <sup>2</sup>	10	28 mm	70 mm <sup>2</sup>	11.5	28 mm	95 mm <sup>2</sup>	13.5	30 mm	120 mm <sup>2</sup>	15.5	24 mm
Conductor cross-section	∅	Stripping length																							
25 mm <sup>2</sup>	7	26 mm																							
35 mm <sup>2</sup>	8.2	26 mm																							
50 mm <sup>2</sup>	10	28 mm																							
70 mm <sup>2</sup>	11.5	28 mm																							
95 mm <sup>2</sup>	13.5	30 mm																							
120 mm <sup>2</sup>	15.5	24 mm																							

Han  
HC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
TC 350, PE contact, Crimp termination, Contact surface: Silver plated 	35	09 11 000 6172	09 11 000 6272	 


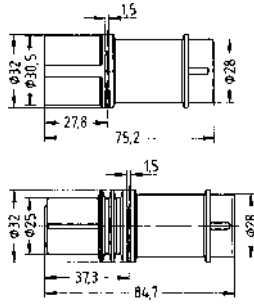

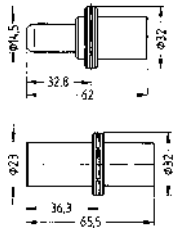
350 A 2.000 V 12 kV 3

Han  
HC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han® HC Modular, 350, Screw termination, Contact surface: Silver plated 	120	09 11 001 2655	09 11 001 2755	 <p>Tightening torque 14 Nm Cable shoe ≤ 120 mm<sup>2</sup> Please ensure to hold up the contact with a wrench size 17 to apply the tightening torque</p>
TC 350, PE contact, Screw termination, Contact surface: Silver plated 	120	09 11 000 6158	09 11 000 6258	 <p>Tightening torque 14 Nm Cable shoe ≤ 120 mm<sup>2</sup> Please ensure to hold up the contact with a wrench size 17 to apply the tightening torque</p>

350 A 2.000 V 12 kV 3

Han  
HC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)												
		Male	Female													
<p>Han® HC Modular, 350, Axial screw termination, Contact surface: Silver plated</p> 	35 ... 70 95 ... 120	09 11 001 2651 09 11 001 2652	09 11 001 2751 09 11 001 2752	 <p>Tightening torque</p> <table border="1"> <tr> <td>mm<sup>2</sup></td> <td>35</td> <td>50</td> <td>70</td> <td>95</td> <td>120</td> </tr> <tr> <td>Nm</td> <td>8</td> <td>10</td> <td>12</td> <td>14</td> <td>16</td> </tr> </table> <p>max. wire outer diameter 19.5 mm Stripping length 19...20 mm</p>	mm <sup>2</sup>	35	50	70	95	120	Nm	8	10	12	14	16
mm <sup>2</sup>	35	50	70	95	120											
Nm	8	10	12	14	16											
<p>TC 350, PE contact, Axial screw termination, Contact surface: Silver plated</p> 	35 ... 70	09 11 000 6156	09 11 000 6256	 <p>Tightening torque</p> <table border="1"> <tr> <td>mm<sup>2</sup></td> <td>35</td> <td>50</td> <td>70</td> </tr> <tr> <td>Nm</td> <td>8</td> <td>10</td> <td>12</td> </tr> </table> <p>Stripping length 19...20 mm</p>	mm <sup>2</sup>	35	50	70	Nm	8	10	12				
mm <sup>2</sup>	35	50	70													
Nm	8	10	12													

## Features

- Hoods/housings for harsh outdoor environments
- Metal hoods and housings with excellent corrosion resistance
- Corrosion resistance ASTM B117-09 (500 h)
- Excellent EMC characteristics
- Screw locking M6
- Field of application: for external electrical interconnections in vehicles, in highly demanding environments and wet areas, as well as for sensitive interconnections that have to be shielded
- Distinguishing feature: colour-coded black, internal seal

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Tightening torque (screw locking)	4 Nm
Degree of protection acc. to IEC 60529	IP65, IP68, IP69 / IPX9K acc. to ISO 20653
Type rating acc. to UL 50 / UL 50E	4, 4X, 12
Material (hood/housing)	Aluminium die-cast, Corrosion resistant
Surface (hood/housing)	Powder-coated
Colour (hood/housing)	RAL 9005 (jet black)
Material (seal)	NBR
Material (locking)	Stainless steel
Material (accessories)	Aluminium die-cast, Metal
RoHS	compliant, compliant with exemption

## Specifications and approvals


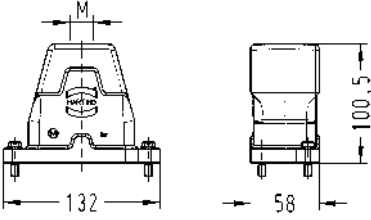

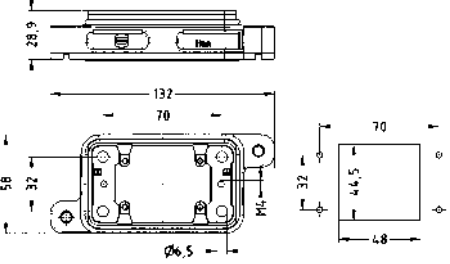

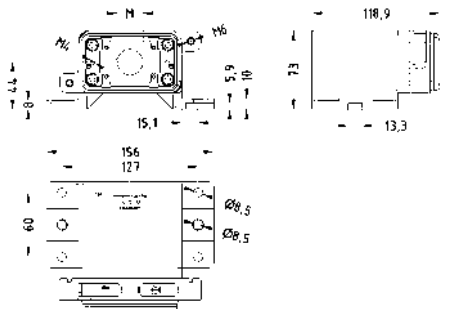

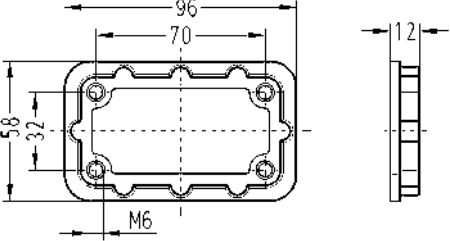
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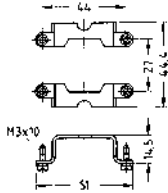

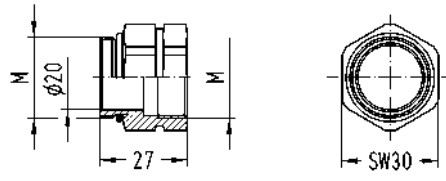


Hoods/housings for harsh outdoor environments  
Screw locking

Han  
HC

Identification	Cable entry	Size	Part number	Drawing (dimensions in mm)
Han® HPR, Hood, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653  	1x M25 1x M32		19 40 006 0411 19 40 006 0412	
Han® HPR, Bulkhead mounted housing, IP65, IP68, IP69 / IPX9K acc. to ISO 20653  			09 40 006 0311	
Han® HPR, Surface mounted housing, Horizontal version, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653  	1x M25 1x M40		19 40 006 0911 19 40 006 0913	
Mounting frames, Han® HPR, Thread M6  			09 40 000 9901	


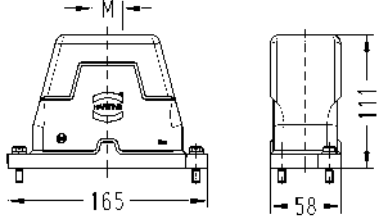

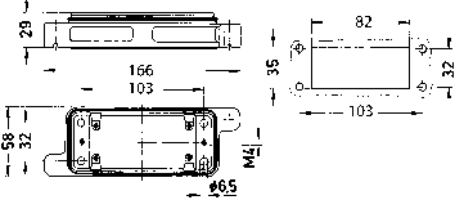


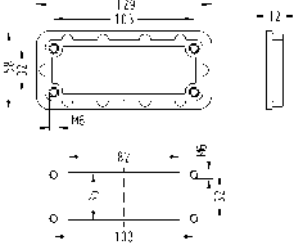
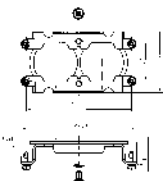



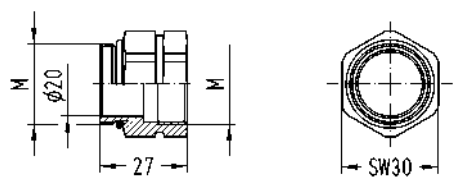
Identification	Cable entry	Size	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Frame, for male inserts, for female inserts, 1x Han® HC Modular 350</p> 			09 11 000 9951	 <p>Tightening torque Fixing screws M3: 0.5 Nm</p>
<p>Hexagonal adapter, With O-ring</p>  <p>to reach the electrical data up to 4000 V 18 kV 3</p>		M25 M32	19 36 000 5134 19 36 000 5135	



Hoods/housings for harsh outdoor environments  
Screw locking

Han  
HC


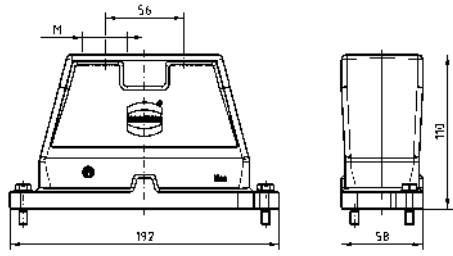

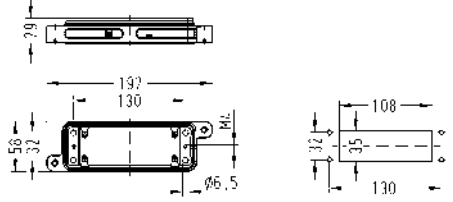

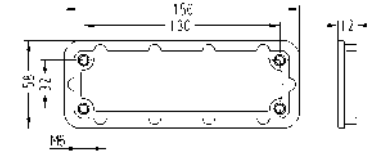

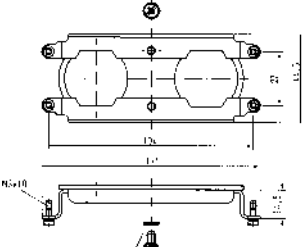
Identification	Cable entry	Size	Part number	Drawing (dimensions in mm)
Han® HPR, Hood, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653  	2x M25		19 40 016 0431	
Han® HPR, Bulkhead mounted housing, IP65, IP68, IP69 / IPX9K acc. to ISO 20653  			09 40 016 0311	
Mounting frames, Han® HPR, Thread M6    Han® HPR, Frame, for male inserts, for female inserts, 2x Han® HC Modular 350  			09 40 000 9903           09 11 000 9952	 <p>Panel cut out</p>  <p>Tightening torque Fixing screws M3: 0.5 Nm Tightening torque Fixing screws M4: 1.5 Nm</p>


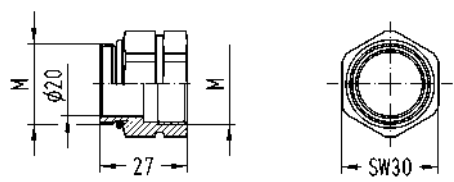
Identification	Cable entry	Size	Part number	Drawing (dimensions in mm)
<p>Hexagonal adapter, With O-ring</p>  <p>to reach the electrical data up to 4000 V 18 kV 3</p>		M25	19 36 000 5134	

Han  
HC

Hoods/housings for harsh outdoor environments  
Screw locking

Han  
HC


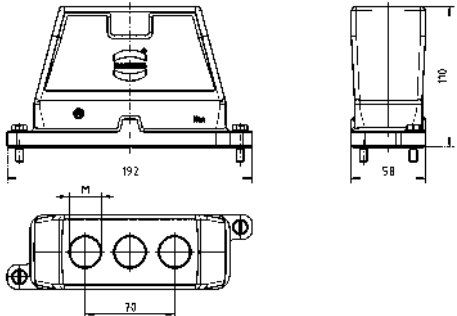

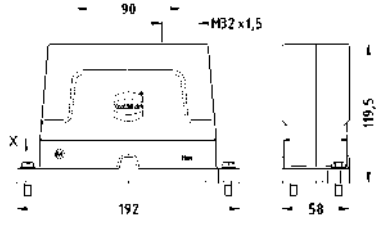

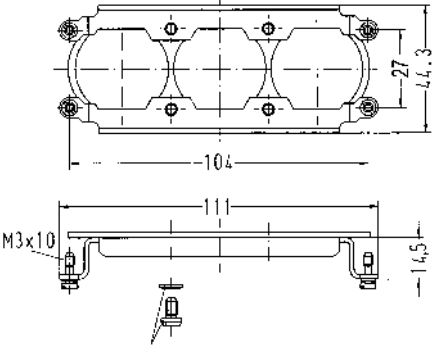
Identification	Cable entry	Size	Part number	Drawing (dimensions in mm)
<p>Han<sup>®</sup> HPR, Hood, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	2x M32		19 40 024 0432	
<p>Han<sup>®</sup> HPR, Bulkhead mounted housing, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 			09 40 024 0311	
<p>Mounting frames, Han<sup>®</sup> HPR, Thread M6</p> 			09 40 000 9904	 <p>Panel cut out</p>
<p>Han<sup>®</sup> HPR, Frame, for male inserts, for female inserts, 2x Han<sup>®</sup> HC Modular 350</p> 			09 11 000 9956	 <p>Tightening torque Fixing screws M3: 0.5 Nm Tightening torque Fixing screws M4: 1.5 Nm</p>

Identification	Cable entry	Size	Part number	Drawing (dimensions in mm)
<p>Hexagonal adapter, With O-ring</p>  <p>to reach the electrical data up to 4000 V 18 kV 3</p>		M32	19 36 000 5135	


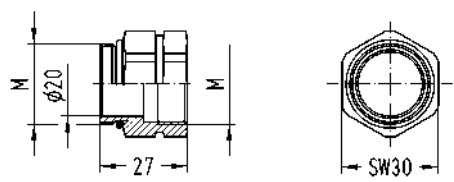
Han  
HC

Hoods/housings for harsh outdoor environments  
Screw locking

Han  
HC

Identification	Cable entry	Size	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Hood, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	3x M25		19 40 024 0461	
<p>Han® HPR, Hood, Top entry, High construction, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	3x M32		19 40 024 0467	
<p>Han® HPR, Frame, for male inserts, for female inserts, 3x Han® HC Modular 350</p> 			09 11 000 9963	 <p>Tightening torque Fixing screws M3: 0.5 Nm Tightening torque Fixing screws M4: 1.5 Nm</p>



Identification	Cable entry	Size	Part number	Drawing (dimensions in mm)
<p>Hexagonal adapter, With O-ring</p>  <p>to reach the electrical data up to 4000 V 18 kV 3</p>		<p>M25 M32</p>	<p>19 36 000 5134 19 36 000 5135</p>	


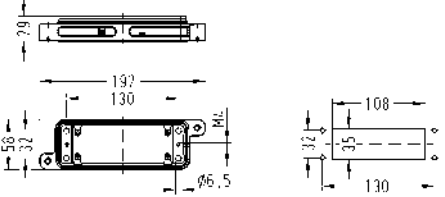

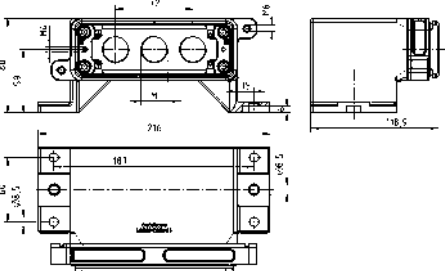

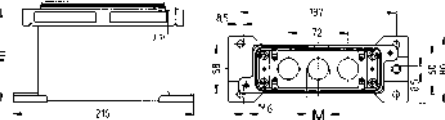

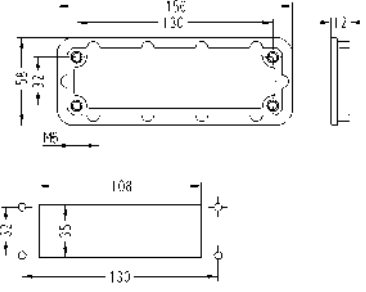
Han  
HC


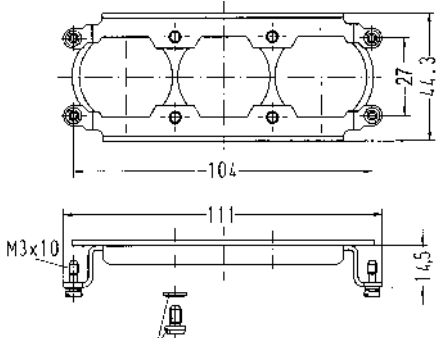

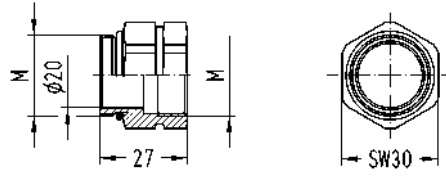




Hoods/housings for harsh outdoor environments  
Screw locking





Han  
HC

Identification	Cable entry	Size	Part number	Drawing (dimensions in mm)
Han® HPR, Bulkhead mounted housing, IP65, IP68, IP69 / IPX9K acc. to ISO 20653  			09 40 024 0311	
Han® HPR, Surface mounted housing, Horizontal version, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653  	3x M25		19 40 024 0931	
Han® HPR, Surface mounted housing, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653  	3x M25		19 40 024 1231	
Mounting frames, Han® HPR, Thread M6  			09 40 000 9904	 <p>Panel cut out</p>

Identification	Cable entry	Size	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Frame, for male inserts, for female inserts, 3x Han® HC Modular 350</p> 			09 11 000 9963	 <p>Tightening torque Fixing screws M3: 0.5 Nm Tightening torque Fixing screws M4: 1.5 Nm</p>
<p>Hexagonal adapter, With O-ring</p>  <p>to reach the electrical data up to 4000 V 18 kV 3</p>		M25	19 36 000 5134	


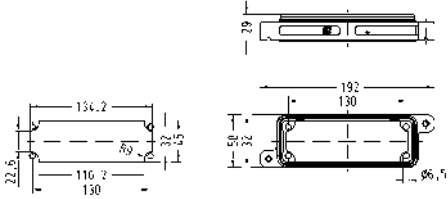

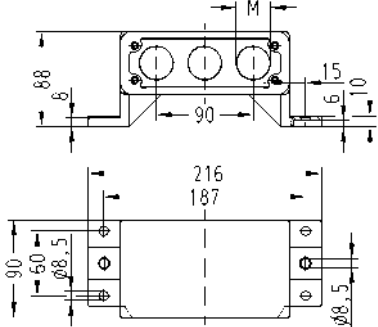

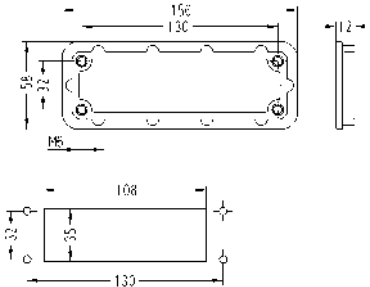
Hoods/housings for harsh outdoor environments  
Screw locking

Han  
HC


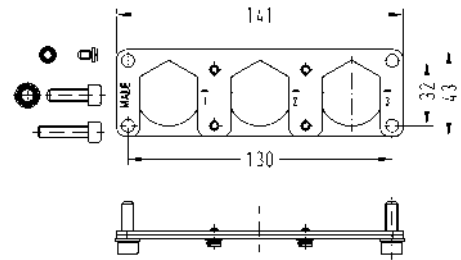

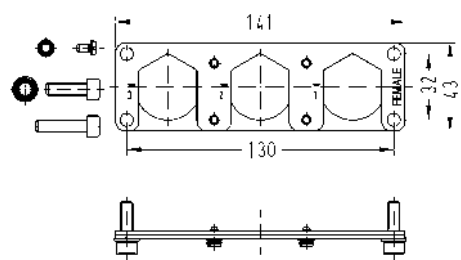
Identification	Cable entry	Size	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Hood, Enlarged, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	3x M32		19 40 024 0468	
<p>Han® HPR enlarged, Frame, for male inserts, 3x Han® HC Modular 350, Pack contents: 4x M4 screw, 4x washer SK S4, 4x washer SK S6, 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 25</p>  <p>Han® HPR enlarged, Frame, for female inserts, 3x Han® HC Modular 350, Pack contents: 4x M4 screw, 4x washer SK S4, 4x washer SK S6, 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 25</p>  <p>Hexagonal adapter, With O-ring</p>  <p>to reach the electrical data up to 4000 V 18 kV 3</p>		M32	<p>09 11 000 9957</p> <p>09 11 000 9958</p> <p>19 36 000 5135</p>	<p>Tightening torque Fixing screws M6: 10 Nm Tightening torque Screws M4: 1.5 Nm</p> <p>Tightening torque Fixing screws M6: 10 Nm Tightening torque Screws M4: 1.5 Nm</p>

Hoods/housings for harsh outdoor environments  
Screw locking

Han  
HC


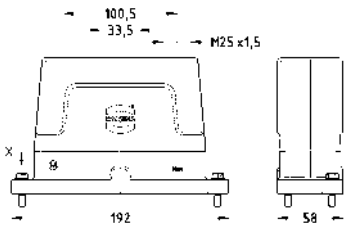

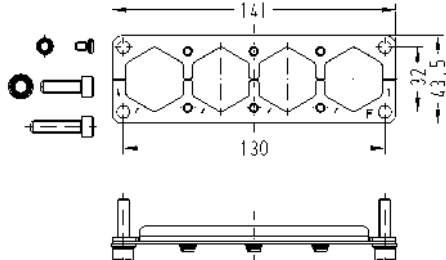

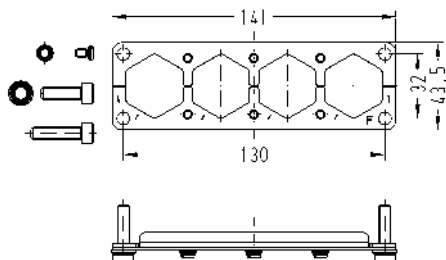
Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Bulkhead mounted housing, Enlarged, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		09 40 024 0368	
<p>Han® HPR, Surface mounted housing, Horizontal version, Enlarged, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p>  <p>Bulkhead mounted housing 09 40 024 0368 not included, please order separately</p>	3x M32	19 40 024 0968	
<p>Mounting frames, Han® HPR, Thread M6</p> 		09 40 000 9904	 <p>Panel cut out</p>

Han  
HC

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR enlarged, Frame, for male inserts, 3x Han® HC Modular 350,</p> <p>Pack contents: 4x M4 screw, 4x washer SK S4, 4x washer SK S6, 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 25</p> 		09 11 000 9957	 <p>Tightening torque Fixing screws M6: 10 Nm Tightening torque Screws M4: 1.5 Nm</p>
<p>Han® HPR enlarged, Frame, for female inserts, 3x Han® HC Modular 350,</p> <p>Pack contents: 4x M4 screw, 4x washer SK S4, 4x washer SK S6, 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 25</p> 		09 11 000 9958	 <p>Tightening torque Fixing screws M6: 10 Nm Tightening torque Screws M4: 1.5 Nm</p>


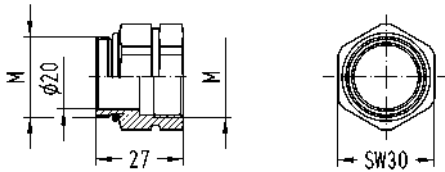
Hoods/housings for harsh outdoor environments  
Screw locking

Han  
HC

Identification	Cable entry	Size	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Hood, Enlarged, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	4x M25		19 40 024 0478	
<p>Han® HPR enlarged, Frame, for male inserts, 4x Han® HC Modular 350, Pack contents: 4x M4 screw, 4x washer SK S4, 4x washer SK S6, 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 25, 4x heat shrink tube</p> 			09 11 000 9964	 <p>Tightening torque Fixing screws M6: 10 Nm Tightening torque Screws M4: 1.5 Nm</p>
<p>Han® HPR enlarged, Frame, for female inserts, 4x Han® HC Modular 350, Pack contents: 4x M4 screw, 4x washer SK S4, 4x washer SK S6, 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 25, 4x heat shrink tube</p> 			09 11 000 9965	 <p>Tightening torque Fixing screws M6: 10 Nm Tightening torque Screws M4: 1.5 Nm</p>


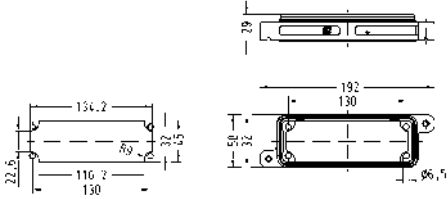

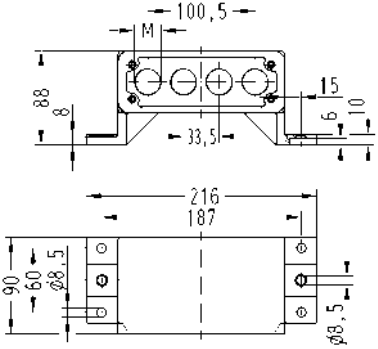

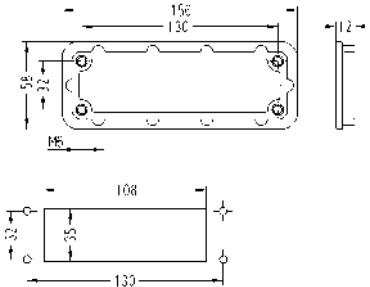


Han  
HC

Identification	Cable entry	Size	Part number	Drawing (dimensions in mm)
<p>Hexagonal adapter, With O-ring</p>  <p>to reach the electrical data up to 4000 V 18 kV 3</p>		M25	19 36 000 5134	


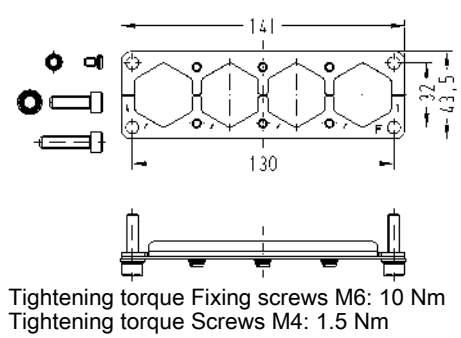

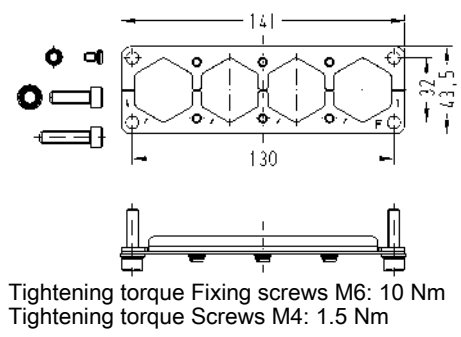
Hoods/housings for harsh outdoor environments  
Screw locking

Han  
HC

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Bulkhead mounted housing, Enlarged, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		09 40 024 0368	
<p>Han® HPR, Surface mounted housing, Horizontal version, Enlarged, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p>  <p>Bulkhead mounted housing 09 40 024 0368 not included, please order separately</p>	4x M25	19 40 024 0978	
<p>Mounting frames, Han® HPR, Thread M6</p> 		09 40 000 9904	 <p>Panel cut out</p>



Han  
HC

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR enlarged, Frame, for male inserts, 4x Han® HC Modular 350,</p> <p>Pack contents: 4x M4 screw, 4x washer SK S4, 4x washer SK S6, 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 25, 4x heat shrink tube</p> 		09 11 000 9964	 <p>Tightening torque Fixing screws M6: 10 Nm Tightening torque Screws M4: 1.5 Nm</p>
<p>Han® HPR enlarged, Frame, for female inserts, 4x Han® HC Modular 350,</p> <p>Pack contents: 4x M4 screw, 4x washer SK S4, 4x washer SK S6, 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 25, 4x heat shrink tube</p> 		09 11 000 9965	 <p>Tightening torque Fixing screws M6: 10 Nm Tightening torque Screws M4: 1.5 Nm</p>

## Features

- Hoods/housings for rough environments
- Metal hoods and housings with excellent corrosion resistance
- Corrosion resistance ASTM B117-09 (500 h)
- Locking lever made of high-quality stainless steel

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP65
Type rating acc. to UL 50 / UL 50E	4, 4X, 12
Material (hood/housing)	Aluminium die-cast
Surface (hood/housing)	Powder-coated
Colour (hood/housing)	RAL 9005 (jet black)
Material (seal)	FPM
Material (locking)	Stainless steel
Material (accessories)	Metal
RoHS	compliant

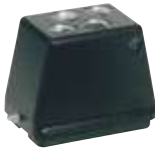
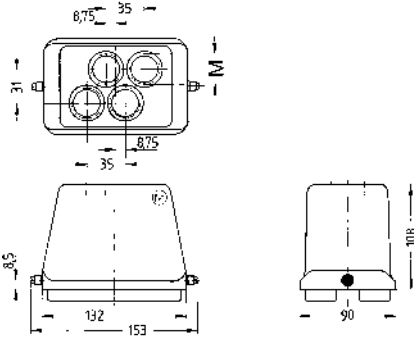

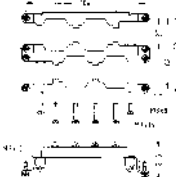
## Specifications and approvals

UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL




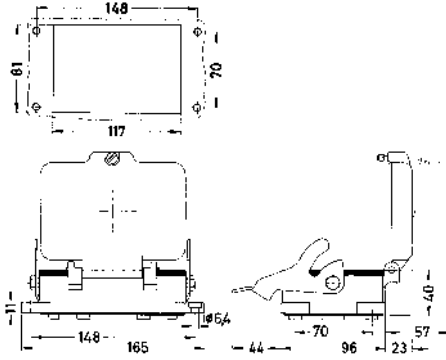

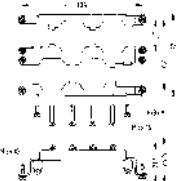
Hoods/housings for rough environments  
Single locking lever

Han  
HC

Identification	Cable entry	Part number High construction	Drawing (dimensions in mm)
<p>Han® M, Hood, Top entry, IP65</p> 	<p>4x M25</p>	<p>19 37 048 0401</p>	
<p>Han® M, Frame, for male inserts, for female inserts, 4x HC 350 contacts + 2x Han® Q 5/0 in a hood</p> 		<p>09 11 000 9954</p>	 <p>Tightening torque Fixing screws M3: 0.5 Nm Tightening torque Fixing screws Han® Q 5/0: 0.25 Nm Tightening torque Cross-tying screws 1.5 Nm</p>

Hoods/housings for rough environments  
Single locking lever

Han  
HC

Identification	Part number Low construction	Drawing (dimensions in mm)
<p>Han® M, Bulkhead mounted housing, With thermo-plastic cover, IP65</p> 	<p>09 37 048 0301</p>	
<p>Han® M, Frame, for male inserts, for female inserts, 4x HC 350 contacts + 2x Han® Q 5/0 in a bulkhead mounted housing</p> 	<p>09 11 000 9955</p>	 <p>Tightening torque Fixing screws M3: 0.5 Nm Tightening torque Fixing screws Han® Q 5/0: 0.25 Nm Tightening torque Cross-tying screws 1.5 Nm</p>

## Features

- Contacts for fine stranded wire
- Low mating forces
- Suitable for HPR® hoods and housings
- UL approvals for axial-screw and screw termination

## Technical characteristics

Rated current	650 A
Rated voltage	4000 V
Rated impulse voltage	18 kV
Pollution degree	3
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤0.3 mΩ, ≤0.2 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Wire outer diameter	≤27 mm, ≤32 mm @ 240 mm <sup>2</sup> , ≤26.5 mm
Material (insert)	Polycarbonate (PC), Polyamide (PA)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

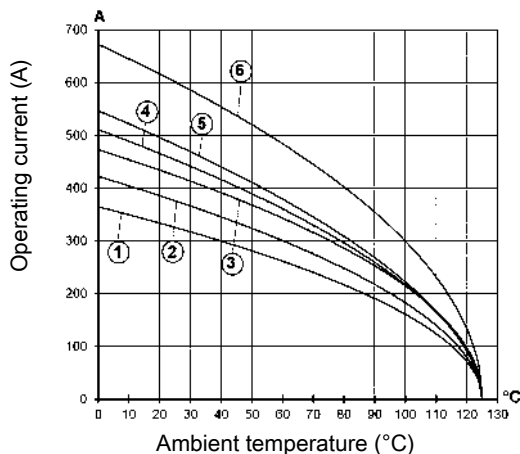
## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2

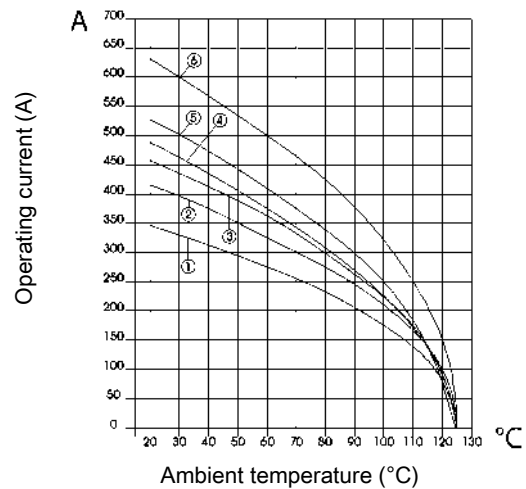
Crimp termination



- Conductor cross-section
- |                       |                       |
|-----------------------|-----------------------|
| ① 70 mm <sup>2</sup>  | ② 95 mm <sup>2</sup>  |
| ③ 120 mm <sup>2</sup> | ④ 150 mm <sup>2</sup> |
| ⑤ 185 mm <sup>2</sup> | ⑥ 240 mm <sup>2</sup> |
- Three contacts in Han® 24 HPR

## Derating

Screw termination / axial screw termination



- Conductor cross-section
- |                       |                       |
|-----------------------|-----------------------|
| ① 70 mm <sup>2</sup>  | ② 95 mm <sup>2</sup>  |
| ③ 120 mm <sup>2</sup> | ④ 150 mm <sup>2</sup> |
| ⑤ 185 mm <sup>2</sup> | ⑥ 240 mm <sup>2</sup> |
- Three contacts in Han® 24 HPR

## Specifications and approvals

EN 60664-1  
IEC 61984  
DNV GL  
UL 1977 ECBT2.E235076

## Details

Contact resistance crimp contact: ≤ 0.3 mΩ

Contact resistance screw contact: ≤ 0.2 mΩ

Contact resistance axial screw contact: ≤ 0.2 mΩ

### Remarks on the axial screw technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Hex key (A/F 8) see chapter Han 90

For more technical details (i.e. number of crimping operations or crimping position) see eCatalogue


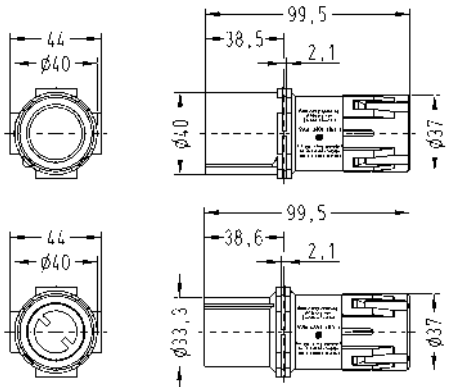

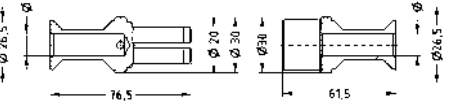
Crimping tools see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.


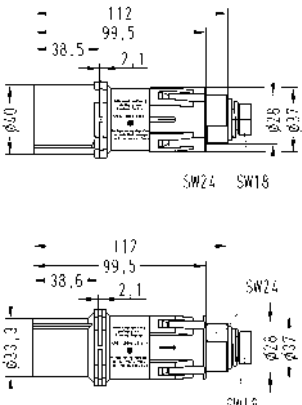

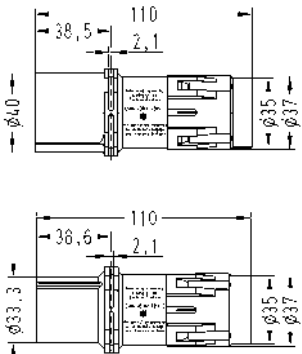
650 A 4.000 V 18 kV 3

Han  
HC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																					
		Male	Female																						
Han® HC Modular, 650, Crimp termination  Please order crimp contacts separately.	70 ... 240	09 11 001 3012	09 11 001 3112	 max. wire outer diameter 70...185 mm <sup>2</sup> : 27 mm max. wire outer diameter 240 mm <sup>2</sup> : 32 mm																					
TC 650, Crimp contact, Contact surface: Silver plated 	50 70 95 120 150 185 240	09 11 000 6561 09 11 000 6161 09 11 000 6162 09 11 000 6163 09 11 000 6164 09 11 000 6165 09 11 000 6168	09 11 000 6261 09 11 000 6262 09 11 000 6263 09 11 000 6264 09 11 000 6265 09 11 000 6268	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>70 mm<sup>2</sup></td> <td>11,5</td> <td>42 mm</td> </tr> <tr> <td>90 mm<sup>2</sup></td> <td>13,5</td> <td>42 mm</td> </tr> <tr> <td>120 mm<sup>2</sup></td> <td>15,5</td> <td>42 mm</td> </tr> <tr> <td>150 mm<sup>2</sup></td> <td>17</td> <td>42 mm</td> </tr> <tr> <td>185 mm<sup>2</sup></td> <td>19</td> <td>42 mm</td> </tr> <tr> <td>240 mm<sup>2</sup></td> <td>21,5</td> <td>46 mm</td> </tr> </tbody> </table> for stranded wire according to IEC 60 228 Class 5 Crimp zone acc. to DIN 46235	Conductor cross-section	ø	Stripping length	70 mm <sup>2</sup>	11,5	42 mm	90 mm <sup>2</sup>	13,5	42 mm	120 mm <sup>2</sup>	15,5	42 mm	150 mm <sup>2</sup>	17	42 mm	185 mm <sup>2</sup>	19	42 mm	240 mm <sup>2</sup>	21,5	46 mm
Conductor cross-section	ø	Stripping length																							
70 mm <sup>2</sup>	11,5	42 mm																							
90 mm <sup>2</sup>	13,5	42 mm																							
120 mm <sup>2</sup>	15,5	42 mm																							
150 mm <sup>2</sup>	17	42 mm																							
185 mm <sup>2</sup>	19	42 mm																							
240 mm <sup>2</sup>	21,5	46 mm																							

650 A 4.000 V 18 kV 3

Han  
HC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)												
		Male	Female													
Han® HC Modular, 650, Screw termination, Contact surface: Silver plated 	240	09 11 001 2675	09 11 001 2775	 <p>Tightening torque 16 ... 18 Nm Cable shoe ≤ 240 mm<sup>2</sup> Please ensure to hold up the contact with a wrench size 24 to apply the tightening torque</p>												
Han® HC Modular, 650, Axial screw termination, Contact surface: Silver plated 	70 ... 120 150 ... 185	09 11 001 2671 09 11 001 2672	09 11 001 2771 09 11 001 2772	 <p>Tightening torque</p> <table border="1"> <thead> <tr> <th>mm<sup>2</sup></th> <th>70</th> <th>95</th> <th>120</th> <th>150</th> <th>185</th> </tr> </thead> <tbody> <tr> <td>Nm</td> <td>12</td> <td>14</td> <td>16</td> <td>17</td> <td>18</td> </tr> </tbody> </table> <p>Stripping length 23 ... 25 mm max. wire outer diameter 26.5 mm</p>	mm <sup>2</sup>	70	95	120	150	185	Nm	12	14	16	17	18
mm <sup>2</sup>	70	95	120	150	185											
Nm	12	14	16	17	18											

## Features

- Hoods/housings for harsh outdoor environments
- Metal hoods and housings with excellent corrosion resistance
- Corrosion resistance ASTM B117-09 (500 h)
- Excellent EMC characteristics
- Screw locking M6
- Field of application: for external electrical interconnections in vehicles, in highly demanding environments and wet areas, as well as for sensitive interconnections that have to be shielded
- Distinguishing feature: colour-coded black, internal seal

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Tightening torque (screw locking)	4 Nm
Degree of protection acc. to IEC 60529	IP65, IP68, IP69 / IPX9K acc. to ISO 20653
Type rating acc. to UL 50 / UL 50E	4, 4X, 12
Material (hood/housing)	Aluminium die-cast, Corrosion resistant
Surface (hood/housing)	Powder-coated
Colour (hood/housing)	RAL 9005 (jet black)
Material (seal)	NBR
Material (locking)	Stainless steel
Material (accessories)	Metal, Aluminium die-cast
RoHS	compliant with exemption, compliant

## Specifications and approvals

UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL


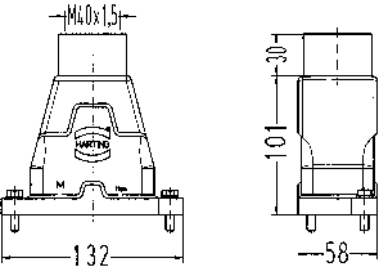

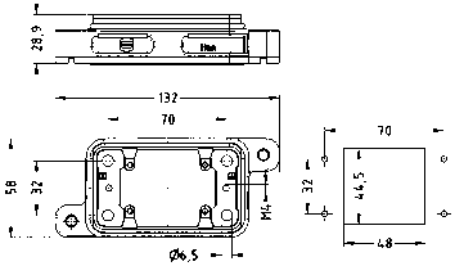

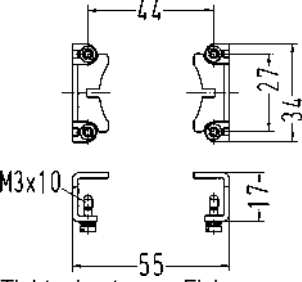







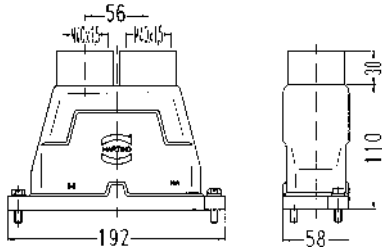

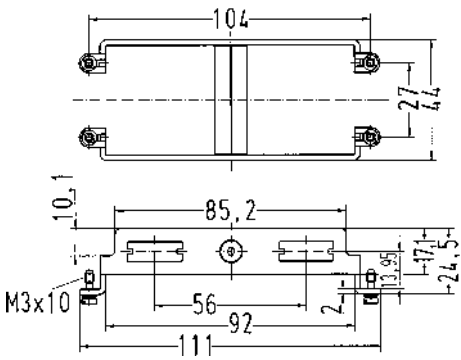
Hoods/housings for harsh outdoor environments  
Screw locking

Han  
HC

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Hood, With adapter, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>1x M40</p>	<p>19 40 006 0418</p>	
<p>Han® HPR, Bulkhead mounted housing, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		<p>09 40 006 0311</p>	
<p>Han® HPR, Frame, for male inserts, for female inserts, 1x Han® HC Modular 650</p> 		<p>09 11 000 9971</p>	 <p>Tightening torque Fixing screws M3: 0.5 Nm</p>


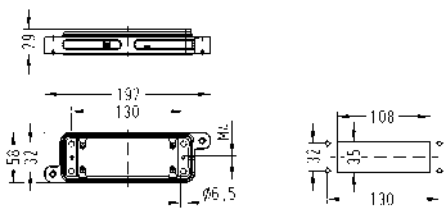


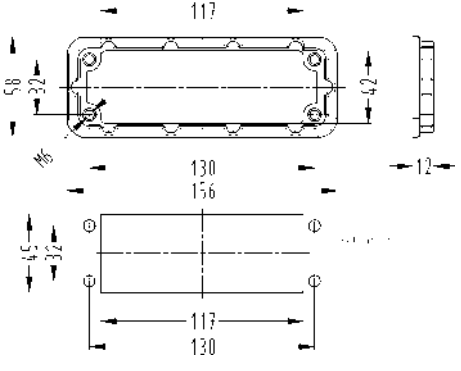
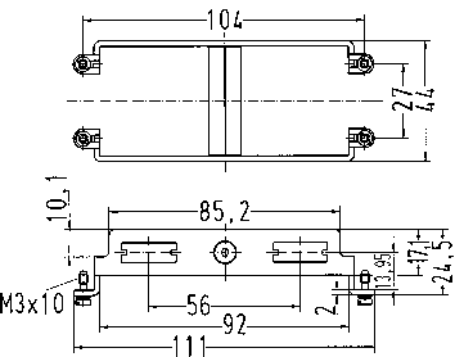
Hoods/housings for harsh outdoor environments  
Screw locking

Han  
HC

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Hood, With adapter, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>2x M40</p>	<p>19 40 024 0438</p>	
<p>Han® HPR, Frame, for male inserts, for female inserts, 2x Han® HC Modular 650</p> 		<p>09 11 000 9972</p>	 <p>Tightening torque Fixing screws M3: 0.5 Nm Tightening torque M4: 1.5 Nm</p>


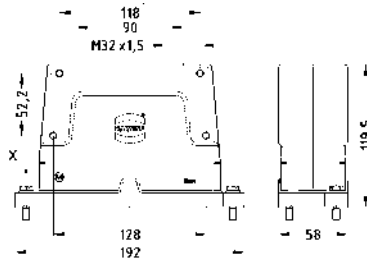

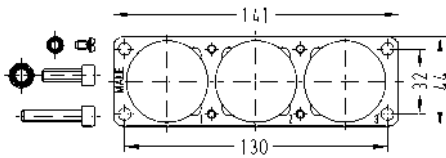

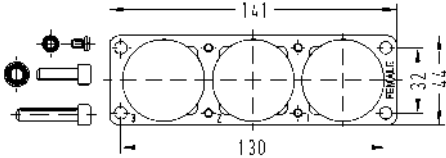

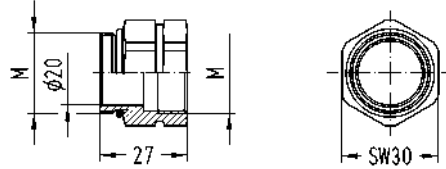
Hoods/housings for harsh outdoor environments  
Screw locking

Han  
HC

Identification	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Bulkhead mounted housing, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>09 40 024 0311</p>	
<p>Mounting frames, Han® HPR, Thread M6</p>   <p>Han® HPR, Frame, for male inserts, for female inserts, 2x Han® HC Modular 650</p> 	<p>09 40 000 9955</p>  <p>09 11 000 9972</p>	   <p>Tightening torque Fixing screws M3: 0.5 Nm Tightening torque M4: 1.5 Nm</p>


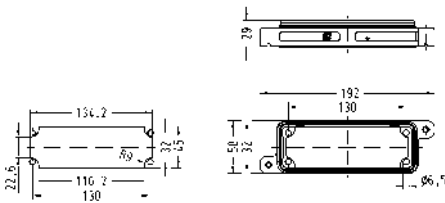

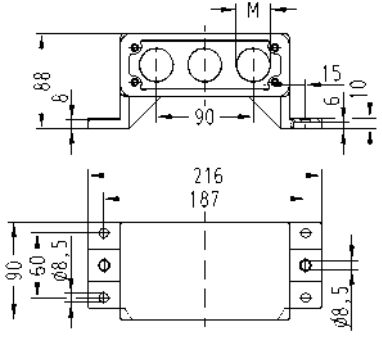

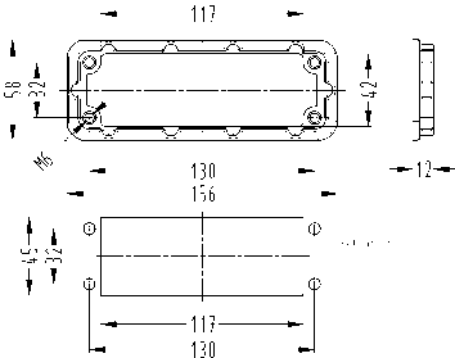
Hoods/housings for harsh outdoor environments  
Screw locking


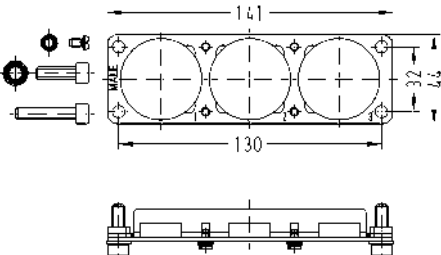

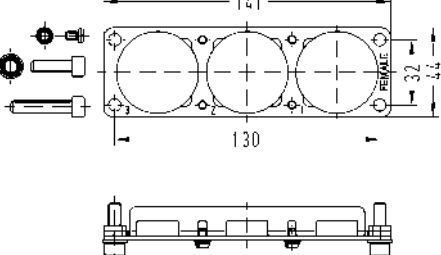

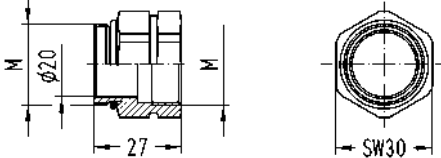
Han  
HC

Identification	Cable entry	Size	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Hood, Enlarged, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	3x M32		19 40 024 0468	
<p>Han® HPR enlarged, Frame, for male inserts, 3x Han® HC Modular 650, Pack contents: 4x M4 screw, 4x washer SK S4, 4x washer SK S6, 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 25</p> 			09 11 000 9973	 <p>Tightening torque Fixing screws M6: 10 Nm Tightening torque Screws M4: 1.5 Nm</p>
<p>Han® HPR enlarged, Frame, for female inserts, 3x Han® HC Modular 650, Pack contents: 4x M4 screw, 4x washer SK S4, 4x washer SK S6, 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 25</p> 			09 11 000 9974	 <p>Tightening torque Fixing screws M6: 10 Nm Tightening torque Screws M4: 1.5 Nm</p>
<p>Hexagonal adapter, With O-ring</p>  <p>to reach the electrical data up to 4000 V 18 kV 3</p>		M32	19 36 000 5135	

Hoods/housings for harsh outdoor environments  
Screw locking

Han  
HC

Identification	Cable entry	Size	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Bulkhead mounted housing, Enlarged, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 			09 40 024 0368	
<p>Han® HPR, Surface mounted housing, Horizontal version, Enlarged, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p>  <p>Bulkhead mounted housing 09 40 024 0368 not included, please order separately</p>	3x M32		19 40 024 0968	
<p>Mounting frames, Han® HPR, Thread M6</p> 			09 40 000 9955	

Identification	Cable entry	Size	Part number	Drawing (dimensions in mm)
<p>Han® HPR enlarged, Frame, for male inserts, 3x Han® HC Modular 650,</p> <p>Pack contents: 4x M4 screw, 4x washer SK S4, 4x washer SK S6, 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 25</p> 			09 11 000 9973	 <p>Tightening torque Fixing screws M6: 10 Nm Tightening torque Screws M4: 1.5 Nm</p>
<p>Han® HPR enlarged, Frame, for female inserts, 3x Han® HC Modular 650,</p> <p>Pack contents: 4x M4 screw, 4x washer SK S4, 4x washer SK S6, 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 25</p> 			09 11 000 9974	 <p>Tightening torque Fixing screws M6: 10 Nm Tightening torque Screws M4: 1.5 Nm</p>
<p>Hexagonal adapter, With O-ring</p>  <p>to reach the electrical data up to 4000 V 18 kV 3</p>		M32	19 36 000 5135	

## Features

- Hoods/Housings for higher EMC requirements
- Easy assembly due to split hood and surface mounted housing
- Many assembly possibilities due to separate assembly panels
- External termination of PE termination on hood and surface mounted housing
- Ideal motor/drive connector for transportation sector
- Secure and a visible connection of screening braid of shielded cables

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Tightening torque (screw locking)	4 Nm
Degree of protection acc. to IEC 60529	IP65, IP68, IP69 / IPX9K acc. to ISO 20653
Type rating acc. to UL 50 / UL 50E	4, 4X, 12
Material (hood/housing)	Aluminium die-cast, Corrosion resistant
Surface (hood/housing)	Powder-coated
Colour (hood/housing)	RAL 9005 (jet black)
Material (seal)	NBR
Material (locking)	Stainless steel
Material (accessories)	Stainless steel, Metal, Zinc die-cast, Aluminium die-cast
RoHS	compliant

## Specifications and approvals

UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL


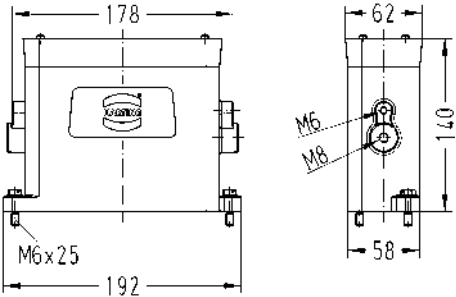

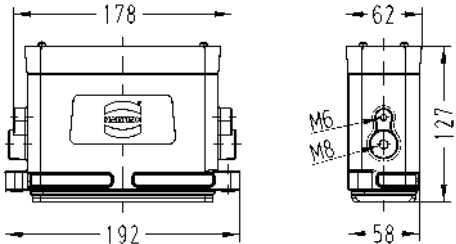

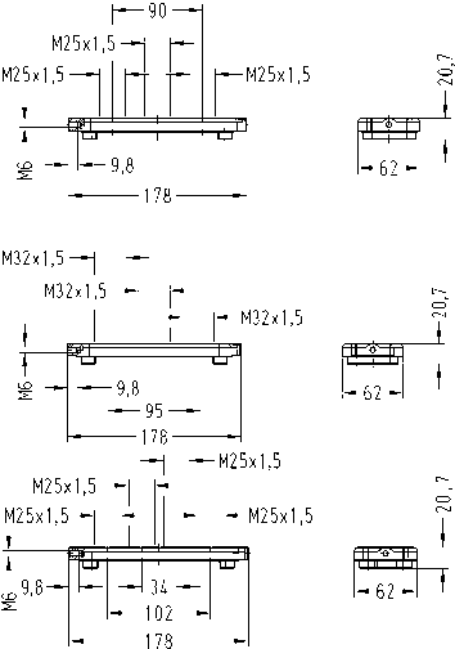


## Details

**Insertion / Removal tool** 09 99 000 0334 for shielding clamps  
 see chapter Han 90


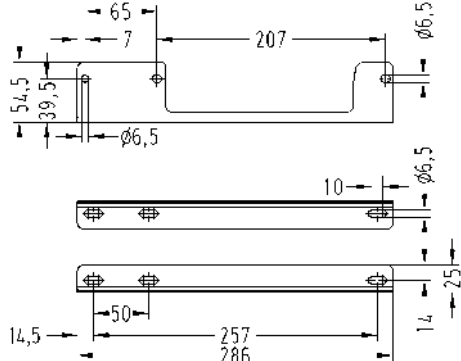

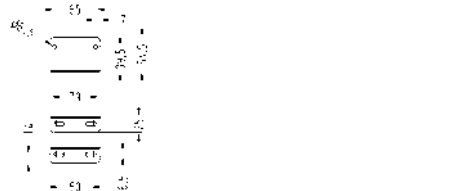



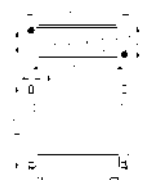
Hoods/housings for harsh outdoor environments  
Screw locking






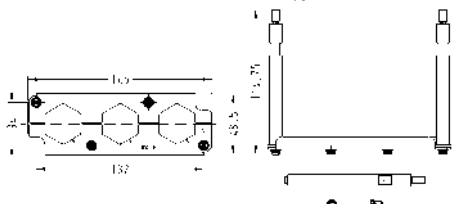

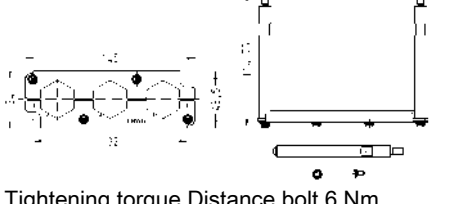

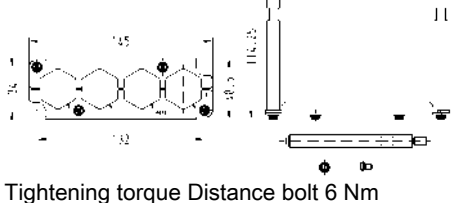
Han  
HC

Identification	Cable entry	Conductor cross-section (mm <sup>2</sup> )	Part number	Drawing (dimensions in mm)
Han® HPR EasyCon, Hood, IP65, IP68, IP69 / IPX9K acc. to ISO 20653  			09 40 024 0451	 <p>Tightening torque Cover locking 6 Nm Tightening torque External PE 15 Nm</p>
Han® HPR EasyCon, Surface mounted housing, IP65, IP68, IP69 / IPX9K acc. to ISO 20653  			09 40 024 0951	 <p>Tightening torque Cover locking 6 Nm Tightening torque External PE 15 Nm</p>
Han® HPR EasyCon, Mounting cover, for surface mounted housings, for hoods, IP65, IP68, IP69 / IPX9K acc. to ISO 20653  	3x M25 3x M32 4x M25		19 40 024 9901 19 40 024 9903 19 40 024 9902	


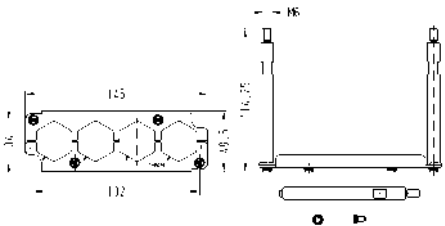

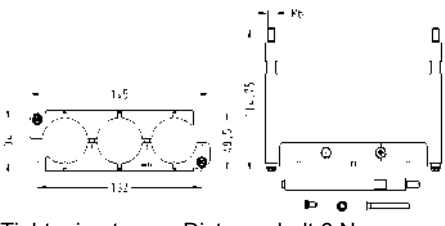

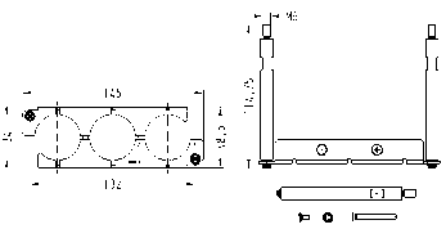

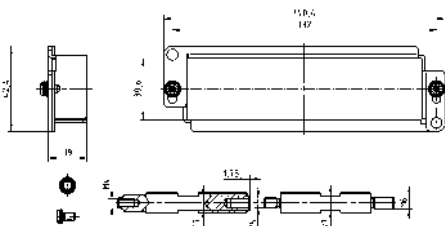



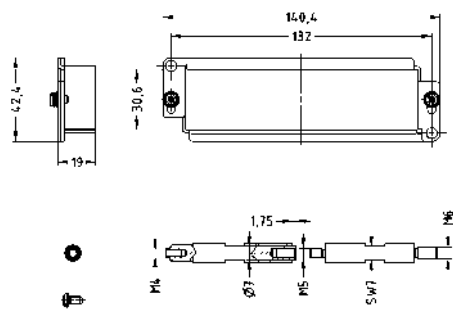

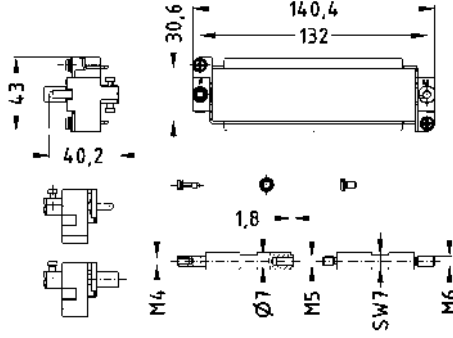

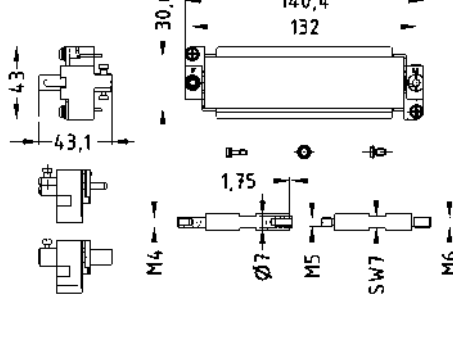
Han  
HC

Identification	Cable entry	Conductor cross-section (mm <sup>2</sup> )	Part number	Drawing (dimensions in mm)
<p>Han® HPR EasyCon, Mounting panel, Long version, for hoods, for surface mounted housings, Pack contents: 6x M6 screw, 6x washer SK S6</p> 			09 40 000 9925	 <p>Tightening torque Fixing screws M6: 6 Nm</p>
<p>Han® HPR EasyCon, Mounting panel, Short version, for hoods, for surface mounted housings, Pack contents: 4x M6 screw, 4x washer SK S6</p> 			09 40 000 9926	 <p>Tightening torque Fixing screws M6: 6 Nm</p>
<p>Han® HPR EasyCon, Frame, for male inserts, 3x Han® HC Modular 250, Pack contents: 2x distance bolt (SW 7), 2x M4 screw, 2x washer SK S4</p> 			09 40 024 9901	 <p>Tightening torque Distance bolt 6 Nm Tightening torque Fixing screws M4: 1.5 Nm</p>
<p>Han® HPR EasyCon, Frame, for female inserts, 3x Han® HC Modular 250, Pack contents: 2x distance bolt (SW 7), 2x M4 screw, 2x washer SK S4</p> 			09 40 024 9902	 <p>Tightening torque Distance bolt 6 Nm Tightening torque Fixing screws M4: 1.5 Nm</p>

Identification	Cable entry	Conductor cross-section (mm <sup>2</sup> )	Part number	Drawing (dimensions in mm)
<p>Han® HPR EasyCon, Frame, for male inserts, 4x Han® HC Modular 250,</p> <p>Pack contents: 2x distance bolt (SW 7), 2x M4 screw, 2x washer SK S4</p> 			09 40 024 9903	 <p>Tightening torque Distance bolt 6 Nm Tightening torque Fixing screws M4: 1.5 Nm</p>
<p>Han® HPR EasyCon, Frame, for female inserts, 4x Han® HC Modular 250,</p> <p>Pack contents: 2x distance bolt (SW 7), 2x M4 screw, 2x washer SK S4</p> 			09 40 024 9904	 <p>Tightening torque Distance bolt 6 Nm Tightening torque Fixing screws M4: 1.5 Nm</p>
<p>Han® HPR EasyCon, Frame, for male inserts, 3x Han® HC Modular 350,</p> <p>Pack contents: 2x distance bolt (A/F 7), 4x M4 screw, 4x washer SK S4</p> 			09 40 024 9911	 <p>Tightening torque Distance bolt 6 Nm Tightening torque Fixing screws M4: 1.5 Nm</p>
<p>Han® HPR EasyCon, Frame, for female inserts, 3x Han® HC Modular 350,</p> <p>Pack contents: 2x distance bolt (A/F 7), 4x M4 screw, 4x washer SK S4</p> 			09 40 024 9912	 <p>Tightening torque Distance bolt 6 Nm Tightening torque Fixing screws M4: 1.5 Nm</p>
<p>Han® HPR EasyCon, Frame, for male inserts, 4x Han® HC Modular 350,</p> <p>Pack contents: 2x distance bolt (A/F 7), 4x M4 screw, 4x washer SK S4, 4x heat shrink tube</p> 			09 40 024 9913	 <p>Tightening torque Distance bolt 6 Nm Tightening torque Fixing screws M4: 1.5 Nm</p>


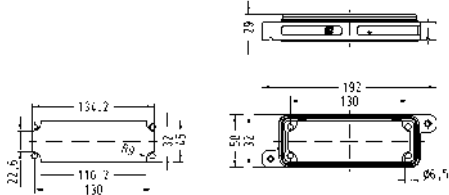



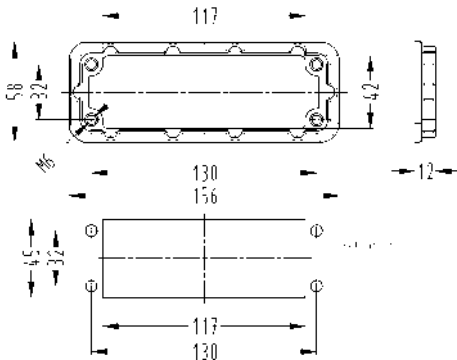
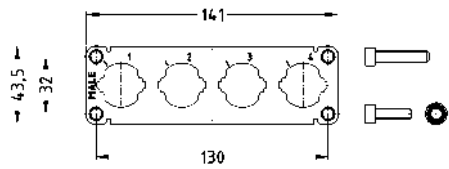
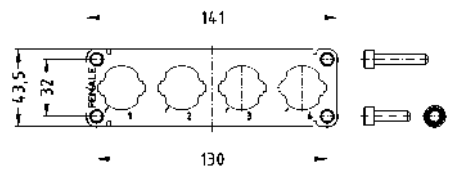
Han  
HC


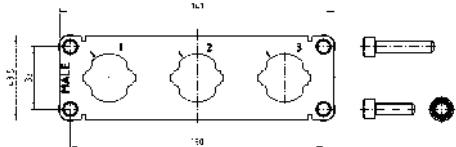

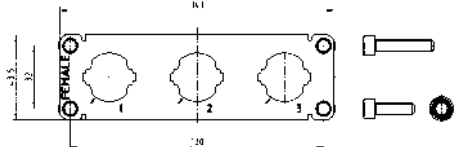

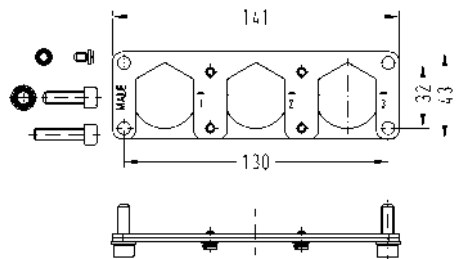

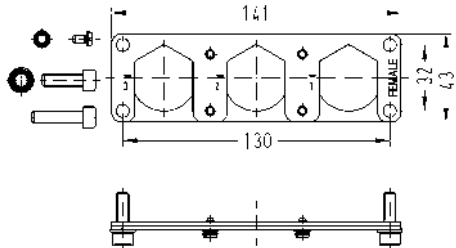
Identification	Cable entry	Conductor cross-section (mm <sup>2</sup> )	Part number	Drawing (dimensions in mm)
<p>Han® HPR EasyCon, Frame, for female inserts, 4x Han® HC Modular 350,</p> <p>Pack contents: 2x distance bolt (A/F 7), 4x M4 screw, 4x washer SK S4, 4x heat shrink tube</p> 			09 40 024 9914	 <p>Tightening torque Distance bolt 6 Nm Tightening torque Fixing screws M4: 1.5 Nm</p>
<p>Han® HPR EasyCon, Frame, for male inserts, 3x Han® HC Modular 650,</p> <p>Pack contents: 2x distance bolt (A/F 7), 2x M4 screw, 2x washer SK S4, 2x M4 countersunk screw</p> 			09 40 024 9921	 <p>Tightening torque Distance bolt 6 Nm Tightening torque Fixing screws M4: 1.5 Nm Tightening torque M4: 1.5 Nm</p>
<p>Han® HPR EasyCon, Frame, for female inserts, 3x Han® HC Modular 650,</p> <p>Pack contents: 2x distance bolt (A/F 7), 2x M4 screw, 2x washer SK S4, 2x M4 countersunk screw</p> 			09 40 024 9922	 <p>Tightening torque Distance bolt 6 Nm Tightening torque Fixing screws M4: 1.5 Nm Tightening torque M4: 1.5 Nm</p>
<p>Han® HPR EasyCon, Frame, for up to 8 single modules, A ... H,</p> <p>Pack contents: 2x M4/M5 distance bolts (A/F 7), 2x M5/M6 distance bolts (A/F 7), 4x M4 screw, 4x washer SK S4</p> 			09 40 024 9931	 <p>Tightening torque Distance bolt 6 Nm Tightening torque Fixing screws M4: 1.5 Nm Tightening torque M4: 1.5 Nm</p>

Identification	Cable entry	Conductor cross-section (mm <sup>2</sup> )	Part number	Drawing (dimensions in mm)
<p>Han® HPR EasyCon, Frame, for up to 8 single modules, a ... h,</p> <p>Pack contents: 2x M4/M5 distance bolts (A/F 7), 2x M5/M6 distance bolts (A/F 7), 4x M4 screw, 4x washer SK S4</p> 			09 40 024 9932	 <p>Tightening torque Distance bolt 6 Nm Tightening torque Fixing screws M4: 1.5 Nm Tightening torque M4: 1.5 Nm</p>
<p>Han® HPR EasyCon, Frame, for up to 8 single modules, A ... H,</p> <p>Pack contents: 1x male PE adapter, 1x female PE adapter, 2x M4/M5 distance bolts (A/F 7), 2x M5/M6 distance bolts (A/F 7), 2x M3 screw, 2x M4 screw, 2x washer SK S4</p> 		4 ... 10 PE terminal power side, 1 ... 2.5 PE terminal signal side	09 40 024 9933	
<p>Han® HPR EasyCon, Frame, for up to 8 single modules, a ... h,</p> <p>Pack contents: 1x male PE adapter, 1x female PE adapter, 2x M4/M5 distance bolts (A/F 7), 2x M5/M6 distance bolts (A/F 7), 2x M3 screw, 2x M4 screw, 2x washer SK S4</p> 		4 ... 10 PE terminal power side, 1 ... 2.5 PE terminal signal side	09 40 024 9934	


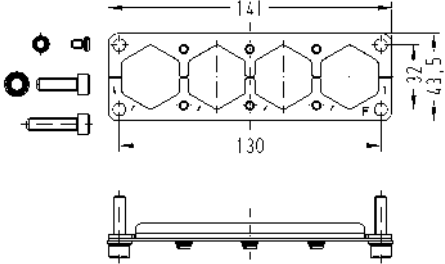

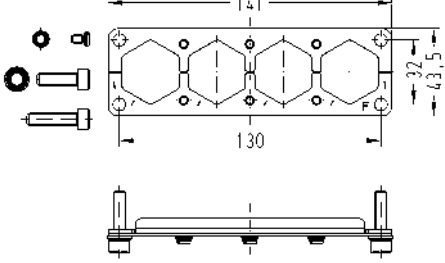

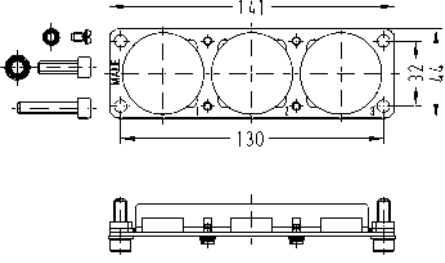

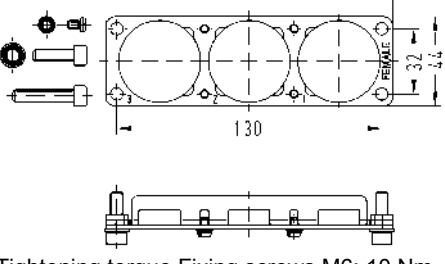
Hoods/housings for harsh outdoor environments  
Screw locking


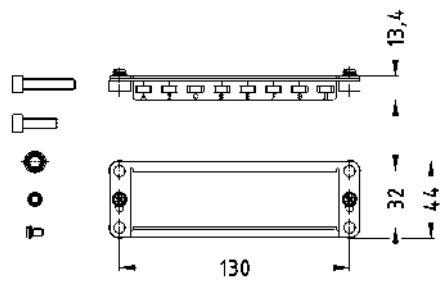

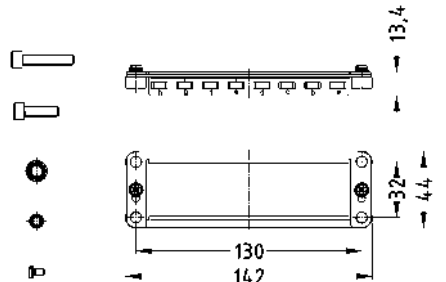

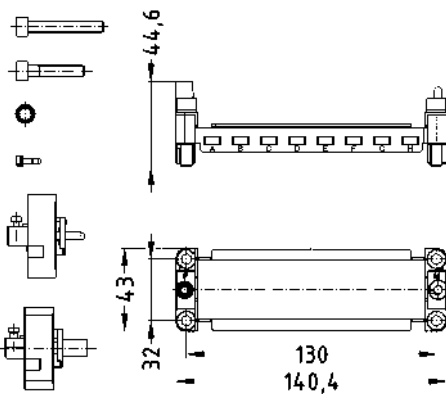

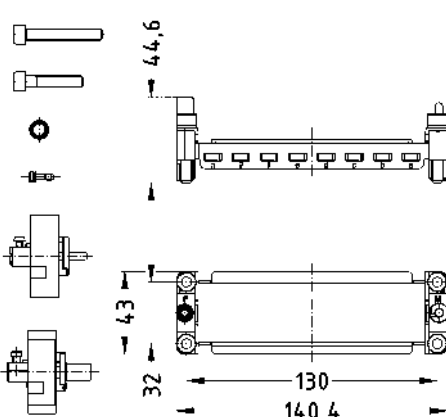
Han  
HC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Bulkhead mounted housing, Enlarged, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		09 40 024 0368	
<p>Mounting frames, Han® HPR, Thread M6</p>  <p>Han® HPR enlarged, Frame, for male inserts, 4x Han® HC Modular 250, Pack contents: 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 25, 4x washer SK S6</p>  <p>Han® HPR enlarged, Frame, for female inserts, 4x Han® HC Modular 250, Pack contents: 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 25, 4x washer SK S6</p> 		<p>09 40 000 9955</p> <p>09 11 000 9927</p> <p>09 11 000 9928</p>	  <p>Tightening torque Fixing screws M6: 10 Nm</p>  <p>Tightening torque Fixing screws M6: 10 Nm</p>

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	Drawing (dimensions in mm)
<p>Han® HPR enlarged, Frame, for male inserts, 3x Han® HC Modular 250,</p> <p>Pack contents: 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 25, 4x washer SK S6</p> 		09 11 000 9931	 <p>Tightening torque Fixing screw M6: 10 Nm</p>
<p>Han® HPR enlarged, Frame, for female inserts, 3x Han® HC Modular 250,</p> <p>Pack contents: 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 25, 4x washer SK S6</p> 		09 11 000 9932	 <p>Tightening torque Fixing screw M6: 10 Nm</p>
<p>Han® HPR enlarged, Frame, for male inserts, 3x Han® HC Modular 350,</p> <p>Pack contents: 4x M4 screw, 4x washer SK S4, 4x washer SK S6, 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 25</p> 		09 11 000 9957	 <p>Tightening torque Fixing screws M6: 10 Nm Tightening torque Screws M4: 1.5 Nm</p>
<p>Han® HPR enlarged, Frame, for female inserts, 3x Han® HC Modular 350,</p> <p>Pack contents: 4x M4 screw, 4x washer SK S4, 4x washer SK S6, 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 25</p> 		09 11 000 9958	 <p>Tightening torque Fixing screws M6: 10 Nm Tightening torque Screws M4: 1.5 Nm</p>

Han  
HC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	Drawing (dimensions in mm)
<p>Han® HPR enlarged, Frame, for male inserts, 4x Han® HC Modular 350,</p> <p>Pack contents: 4x M4 screw, 4x washer SK S4, 4x washer SK S6, 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 25, 4x heat shrink tube</p> 		09 11 000 9964	 <p>Tightening torque Fixing screws M6: 10 Nm Tightening torque Screws M4: 1.5 Nm</p>
<p>Han® HPR enlarged, Frame, for female inserts, 4x Han® HC Modular 350,</p> <p>Pack contents: 4x M4 screw, 4x washer SK S4, 4x washer SK S6, 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 25, 4x heat shrink tube</p> 		09 11 000 9965	 <p>Tightening torque Fixing screws M6: 10 Nm Tightening torque Screws M4: 1.5 Nm</p>
<p>Han® HPR enlarged, Frame, for male inserts, 3x Han® HC Modular 650,</p> <p>Pack contents: 4x M4 screw, 4x washer SK S4, 4x washer SK S6, 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 25</p> 		09 11 000 9973	 <p>Tightening torque Fixing screws M6: 10 Nm Tightening torque Screws M4: 1.5 Nm</p>
<p>Han® HPR enlarged, Frame, for female inserts, 3x Han® HC Modular 650,</p> <p>Pack contents: 4x M4 screw, 4x washer SK S4, 4x washer SK S6, 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 25</p> 		09 11 000 9974	 <p>Tightening torque Fixing screws M6: 10 Nm Tightening torque Screws M4: 1.5 Nm</p>

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	Drawing (dimensions in mm)
<p>Han® HPR enlarged, Frame, for up to 8 single modules, A ... H,</p> <p>Pack contents: 2x M4 screw, 2x washer SK S4, 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 30, 4x washer SK S6</p> 		09 11 000 9935	 <p>Tightening torque Fixing screws M6: 10 Nm Tightening torque Screws M4: 1.5 Nm</p>
<p>Han® HPR enlarged, Frame, for up to 8 single modules, a ... h,</p> <p>Pack contents: 2x M4 screw, 2x washer SK S4, 4x cheese-head screw M6 x 20, 4x cheese-head screw M6 x 30, 4x washer SK S6</p> 		09 11 000 9936	 <p>Tightening torque Fixing screws M6: 10 Nm Tightening torque Screws M4: 1.5 Nm</p>
<p>Han® HPR enlarged, Frame, for up to 8 single modules, A ... H,</p> <p>Pack contents: 1x male PE adapter, 1x female PE adapter, 2x M3 screw, 4x washer SK S6, 4x cheese-head screw M6 x 30, 4x cheese-head screw M6 x 40</p> 	4 ... 10 PE terminal power side, 1 ... 2.5 PE terminal signal side	09 11 024 9933	 <p>Tightening torque Fixing screws M6: 10 Nm Tightening torque Screws M4: 1.5 Nm</p>
<p>Han® HPR enlarged, Frame, for up to 8 single modules, a ... h,</p> <p>Pack contents: 1x male PE adapter, 1x female PE adapter, 2x M3 screw, 4x washer SK S6, 4x cheese-head screw M6 x 30, 4x cheese-head screw M6 x 40</p> 	4 ... 10 PE terminal power side, 1 ... 2.5 PE terminal signal side	09 11 024 9934	 <p>Tightening torque Fixing screws M6: 10 Nm Tightening torque Screws M4: 1.5 Nm</p>


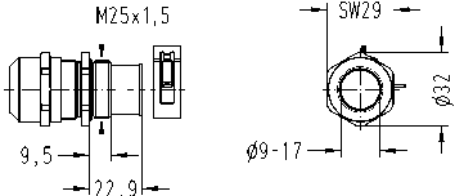
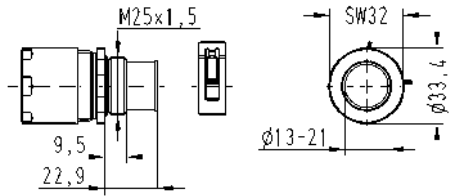


## Features

- Secure and a visible connection of screening braid of shielded cables

## Technical characteristics

Limiting temperature	-40 ... +100 °C
Degree of protection acc. to IEC 60529	IP65 / IP68
Material (seal)	EPDM
Material (cable glands)	Brass
Material (clamping ring)	Polyamide (PA)
Surface (accessories)	Nickel plated
RoHS	compliant with exemption, compliant

Identification	Size	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Han® HPR EasyCon, Cable gland, EMC version, 10 Nm, IP65 / IP68 	M25 M25	9 ... 17 13 ... 21	19 00 000 5013 19 00 000 5019	 

Identification	Size	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Han® HPR EasyCon, Cable gland, EMC version, 20 Nm, IP65 / IP68	M32	13 ... 21	19 00 000 5014	
	M32	16 ... 28	19 00 000 5022	
	M32	17 ... 22.5	19 00 000 5015	
Han® HPR EasyCon, Cable gland, EMC version, IP65 / IP68	M25	17 ... 22.5	19 00 000 5025	
	M40	16 ... 28	19 00 000 5031	
	M40	21 ... 35	19 00 000 5032	
Han® HPR EasyCon, Cable gland, EMC version, IP65 / IP68	M50	21 ... 35	19 00 000 5034	
	M50	21 ... 35	19 00 000 5034	
Han® HPR EasyCon, Cable gland, EMC version, IP65 / IP68	M40	21 ... 35	19 00 000 5032	
	M40	21 ... 35	19 00 000 5032	
	M40	21 ... 35	19 00 000 5032	

## Features

- Hoods/housings for harsh outdoor environments
- Metal hoods and housings with excellent corrosion resistance
- Corrosion resistance ASTM B117-09 (500 h)
- Excellent EMC characteristics
- Vibration resistant acc. to IEC 61373 category 1B (Category 2 possible with usage of M6 distance bolts)

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Tightening torque (screw locking)	4 Nm
Degree of protection acc. to IEC 60529	IP65, IP68, IP69 / IPX9K acc. to ISO 20653
Material (hood/housing)	Aluminium die-cast, Corrosion resistant
Surface (hood/housing)	Powder-coated
Colour (hood/housing)	RAL 9005 (jet black)
Material (seal)	NBR
Material (locking)	Stainless steel
Material (accessories)	Aluminium, Metal
RoHS	compliant


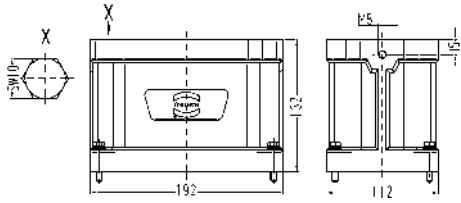

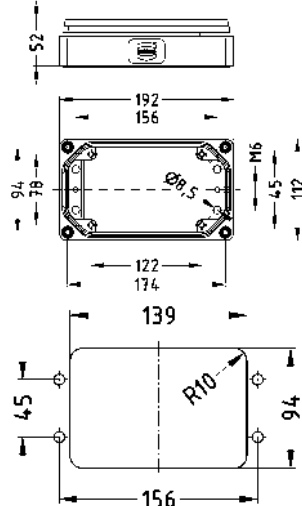
## Specifications and approvals

IEC 61373 Category 1 Class B  
DNV GL


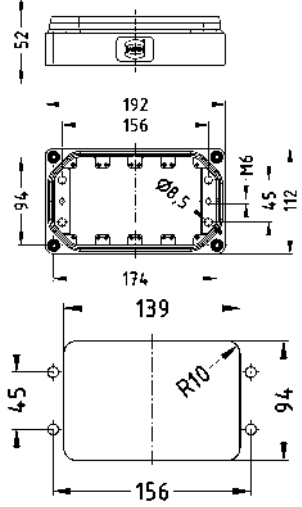

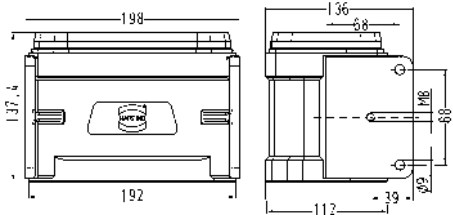

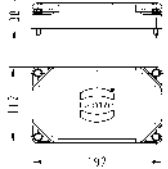

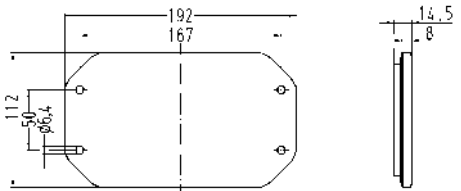



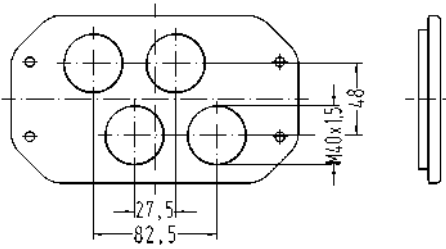

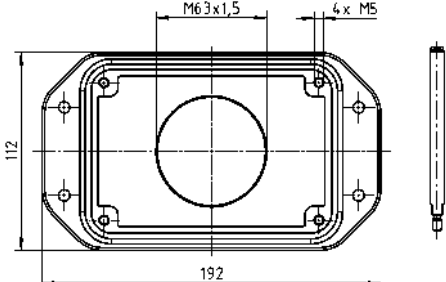

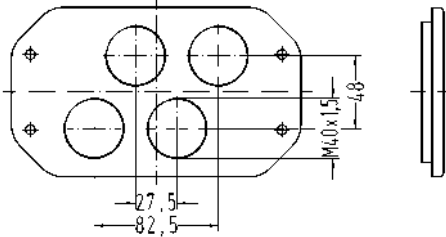
Hoods/housings for harsh outdoor environments  
Screw locking

Han  
HC


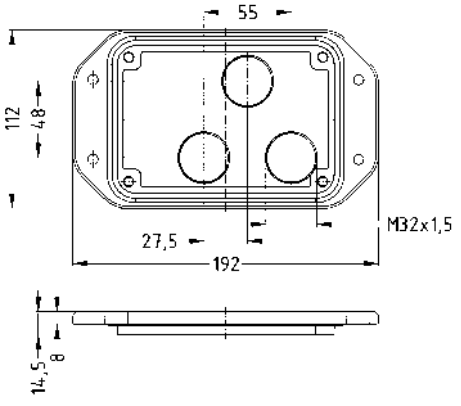

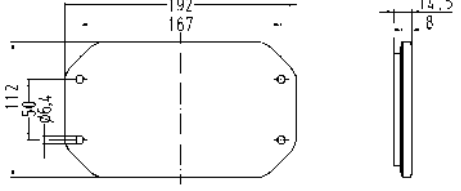

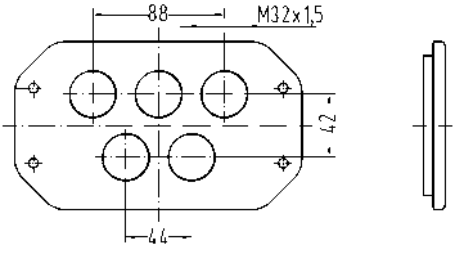
Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Hood, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		09 40 048 0451	
<p>Han® HPR, Bulkhead mounted housing, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		09 40 048 0311	 <p>Panel cut out</p>


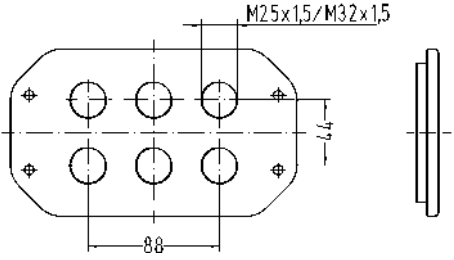
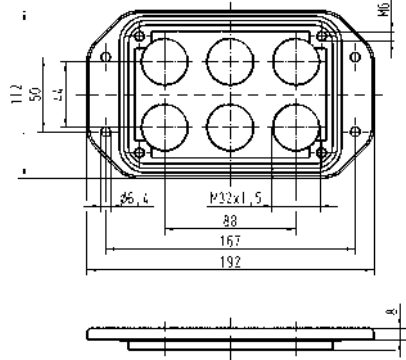

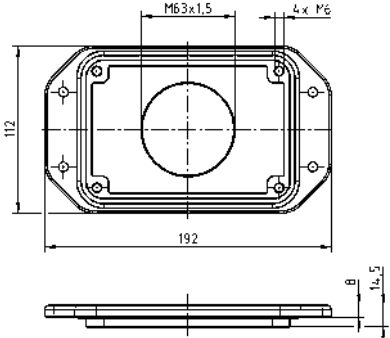

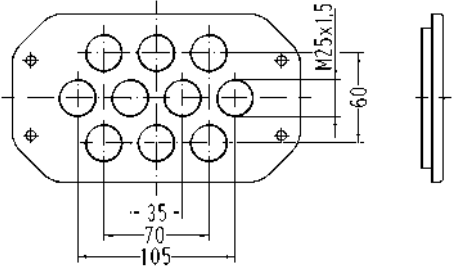
Han  
HC

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Bulkhead mounted housing, for 4 standard inserts - size 16 B, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		09 40 048 0331	 <p>Panel cut out</p>
<p>Han® HPR, Surface mounted housing, Horizontal version, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		09 40 048 0951	
<p>Han® HPR, Protection cover, for bulkhead mounted housings, for surface mounted housings, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		09 40 048 5401	
<p>Han® HPR, Mounting cover, Distance bolt M5, Without cable entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> <p>Pack contents: 4 distance pieces, 4x M6 screw, 4 washers</p> 		09 40 048 9803	

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Mounting cover, Distance bolt M5, for male inserts, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> <p>Pack contents: 4 distance pieces, 4x M6 screw, 4 washers</p> 	<p>4x M40</p>	<p>19 40 048 9801</p>	
<p>Han® HPR, Mounting cover, Distance bolt M5, One entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> <p>Pack contents: 4 distance pieces, 4x M6 screw, 4 washers</p> 	<p>1x M63 1x M75</p>	<p>19 40 048 9826 19 40 048 9825</p>	
<p>Han® HPR, Mounting cover, Distance bolt M5, for female inserts, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> <p>Pack contents: 4 distance pieces, 4x M6 screw, 4 washers</p> 	<p>4x M40</p>	<p>19 40 048 9901</p>	

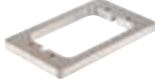
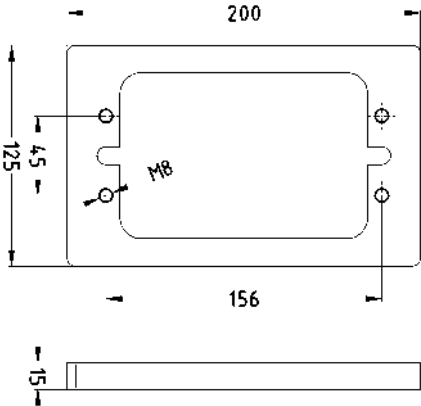
Han  
HC

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Mounting cover, Distance bolt M5, 3 cable entries, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> <p>Pack contents: 4 distance pieces, 4x M6 screw, 4 washers</p> 	<p>3x M32</p>	<p>19 40 048 9902</p>	
<p>Han® HPR, Mounting cover, Distance bolt M6, Without cable entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> <p>Pack contents: 4 distance pieces, 4x M6 screw, 4 washers</p> 		<p>09 40 048 9801</p>	
<p>Han® HPR, Mounting cover, Distance bolt M6, 5 cable entries, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> <p>Pack contents: 4 distance pieces, 4x M6 screw, 4 washers</p> 	<p>5x M32</p>	<p>19 40 048 9812</p>	

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Mounting cover, Distance bolt M6, 6 cable entries, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> <p>Pack contents: 4 distance pieces, 4x M6 screw, 4 washers</p> 	<p>6x M25 6x M32</p>	<p>19 40 048 9820 19 40 048 9822</p>	 
<p>Han® HPR, Mounting cover, Distance bolt M6, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> <p>Pack contents: 4 distance pieces, 4x M6 screw, 4 washers</p> 	<p>1x M63</p>	<p>19 40 048 9824</p>	
<p>Han® HPR, Mounting cover, Distance bolt M6, 10 cable entries, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> <p>Pack contents: 4 distance pieces, 4x M6 screw, 4 washers</p> 	<p>10x M25</p>	<p>19 40 048 9860</p>	

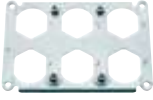
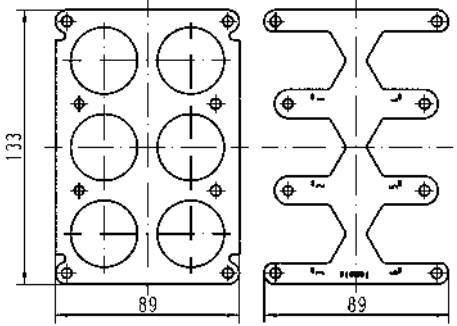
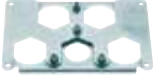
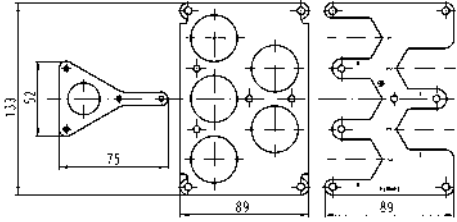

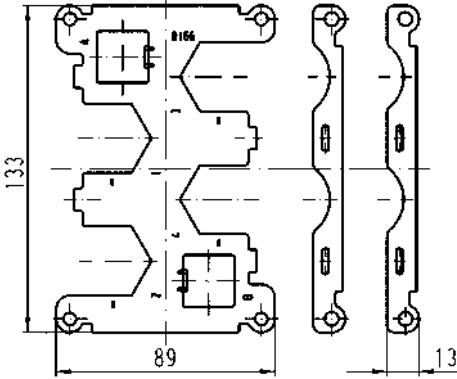
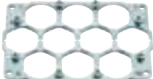
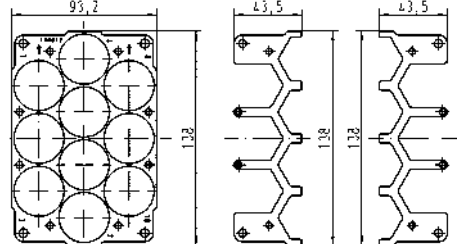



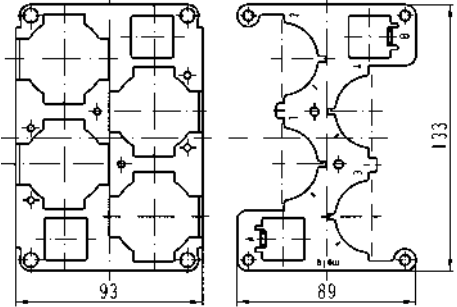

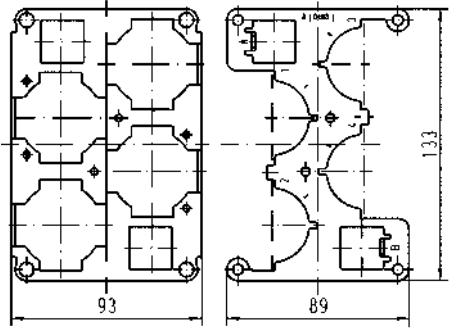

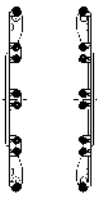
Han  
HC

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Mounting frames, Han® HPR, Thread M8</p> 		<p>09 40 000 9965</p>	

Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
Han® HPR, Frame, for male inserts, 6x Han® HC Modular 350	09 40 048 9806		
Han® HPR, Frame, for male inserts, 5x Han® HC Modular 350 + 1x Han® HC Modu- lar 350 PE	09 40 048 9809		
Han® HPR, Frame, for male inserts, 4x HC 350 contacts + 2x Han® Q 5/0	09 40 048 9810		
Han® HPR, Frame, for male inserts, 10x Han® HC Modular 350	09 40 048 9860		

Han  
HC

Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
<p>Han® HPR, Frame, for female inserts, 6x Han® HC Modular 350</p> 		09 40 048 9906	
<p>Han® HPR, Frame, for female inserts, 5x Han® HC Modular 350 + 1x Han® HC Modu- lar 350 PE</p> 		09 40 048 9909	
<p>Han® HPR, Frame, for female inserts, 4x HC 350 contacts + 2x Han® Q 5/0</p> 		09 40 048 9910	
<p>Han® HPR, Frame, for female inserts, 10x Han® HC Modular 350</p> 		09 40 048 9960	

Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
<p>Han® HPR, Frame, for male inserts, 4x HC 650 contacts + 2x Han® Q 5/0</p> 	09 40 048 9811		
<p>Han® HPR, Frame, for female inserts, 4x HC 650 contacts + 2x Han® Q 5/0</p> 		09 40 048 9911	
<p>Han® HPR, Frame, for 4 standard inserts - size 16 B</p>  <p>Suitable for hoods and surface mounted housings in conjunction with cover 09 40 048 9803/19 40 048 9801/19 40 048 9901 only</p>	09 40 048 9912	09 40 048 9912	

Han  
HC

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14  
·  
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Han® DDD module .....	<b>Han 16.20</b>
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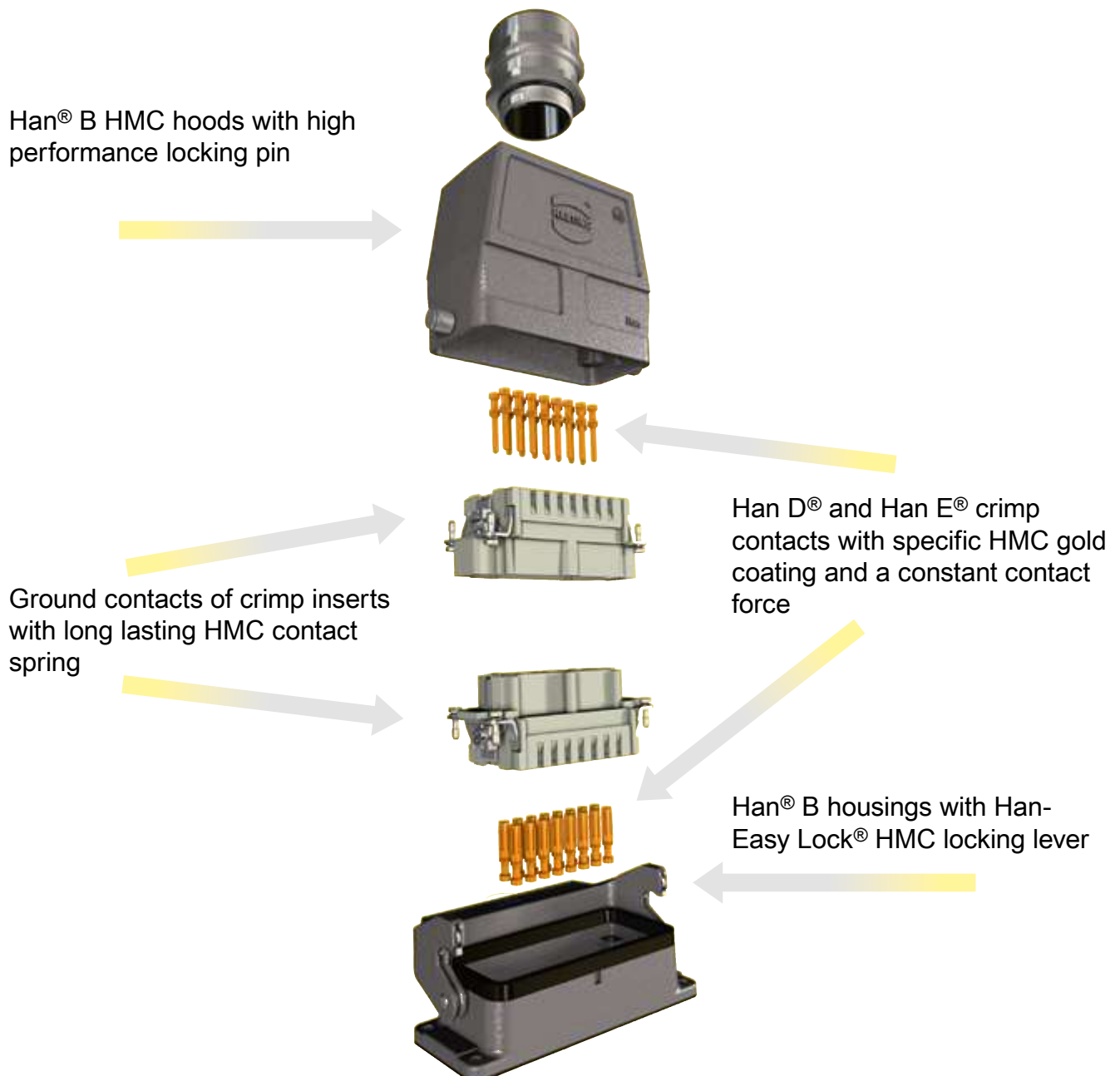
## Features

This series Han® HMC (High Mating Cycles) is a connector series specifically aiming at industrial applications for 10,000 mating cycles.

Benefits:

- High mechanical robustness
- Simple and easy understandable design
- Optimized concept for signal and power transmission
- Low mating and unmating forces
- High contact density

## General Description



## Features

- Modules can be assembled/removed without tools
- Easy handling
- Two leading PE contacts
- Very robust mechanical characteristics

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Mating cycles with other HMC components	≥10000
Material (frames)	Zinc die-cast
RoHS	compliant with exemption

## Specifications and approvals


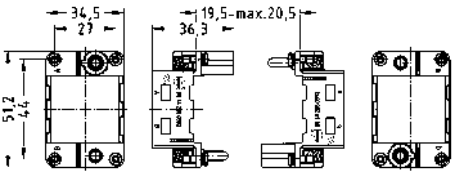

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076

## Details


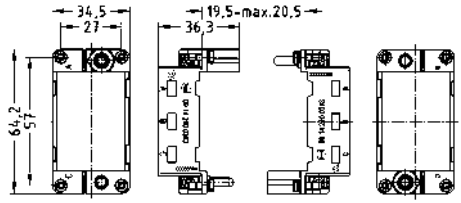

Both different markings must be used for one connector!

**Locking element** 09 14 000 9960 see accessories in chapter Han 06


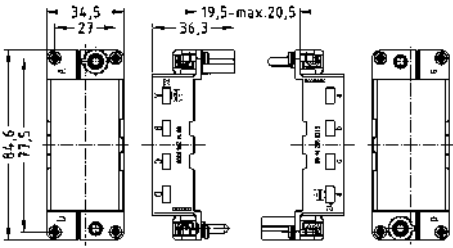

Han  
HMC


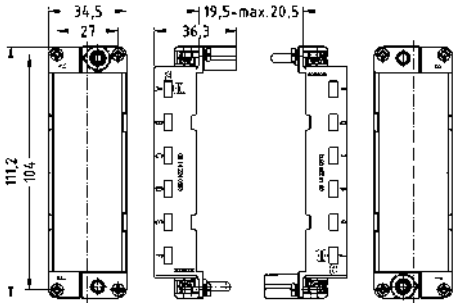

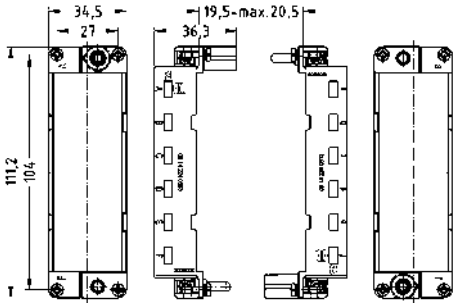
Identification	Part number	Drawing (dimensions in mm)
<p>Han-Modular®, Hinged frame, HMC version, for 2 modules, A ... B</p> 	<p>09 14 206 0303</p>	
<p>Han-Modular®, Hinged frame, HMC version, for 2 modules, a ... b</p> 	<p>09 14 206 0313</p>	



Identification	Part number	Drawing (dimensions in mm)
<p>Han-Modular®, Hinged frame, HMC version, for 3 modules, A ... C</p> 	<p>09 14 210 0303</p>	
<p>Han-Modular®, Hinged frame, HMC version, for 3 modules, a ... c</p> 	<p>09 14 210 0313</p>	

Han  
HMC

Identification	Part number	Drawing (dimensions in mm)
<p>Han-Modular®, Hinged frame, HMC version, for 4 modules, A ... D</p> 	<p>09 14 216 0303</p>	
<p>Han-Modular®, Hinged frame, HMC version, for 4 modules, a ... d</p> 	<p>09 14 216 0313</p>	

Identification	Part number	Drawing (dimensions in mm)
<p>Han-Modular®, Hinged frame, HMC version, for 6 modules, A ... F</p> 	<p>09 14 224 0303</p>	
<p>Han-Modular®, Hinged frame, HMC version, for 6 modules, a ... f</p> 	<p>09 14 224 0313</p>	

## Features

- Standard module for power up to 16 A

## Technical characteristics

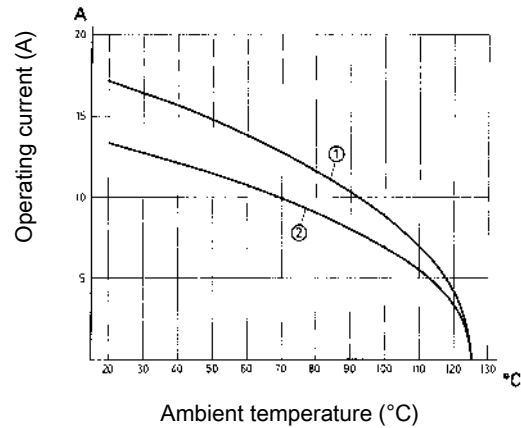
Number of contacts	6
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤1 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Mating cycles with other HMC components	≥10000
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① 24 B hoods/housings with 6 modules Conductor cross-section 2.5 mm<sup>2</sup>
- ② 24 B hoods/housings with 6 modules Conductor cross-section 1.5 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
UL 2237 PVVA2.E318390  
CSA-C22.2 No. 182.3 PVVA8.E318390  
DNV GL

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

### Coding pin


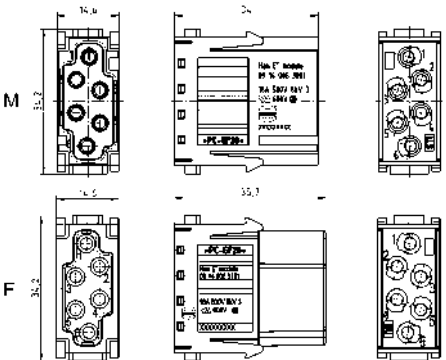
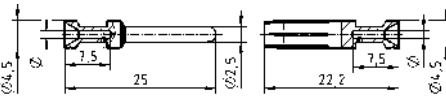

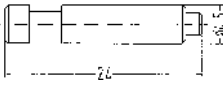
Use of the coding pin prevents incorrect mating to other connectors of the same type. The male pin should be omitted from the opposing cavity in the male insert.

Number of contacts

# 6

16 A 500 V 6 kV 3

Han  
HMC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																		
		Male	Female																			
Han-Modular®, Han E® module, Crimp termination  <p>Please order crimp contacts separately.</p>	0.14 ... 4	09 14 006 3001	09 14 006 3101	 <p>Contact arrangement (view from termination side)</p>																		
Han E® HMC, Crimp contact, Contact surface: HMC gold plated	0.14 ... 0.37 0.5 0.75 1 1.5 2.5 4	09 33 200 6117 09 33 200 6122 09 33 200 6115 09 33 200 6118 09 33 200 6116 09 33 200 6123 09 33 200 6119	09 33 200 6217 09 33 200 6222 09 33 200 6215 09 33 200 6218 09 33 200 6216 09 33 200 6223 09 33 200 6221	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm<sup>2</sup> AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar</p> <p>Stripping length 7.5 mm</p>	Conductor cross-section	Identification	0.14-0.37 mm <sup>2</sup> AWG 26-22	no groove	0.5 mm <sup>2</sup> AWG 20	no groove	0.75 mm <sup>2</sup> AWG 18	1 groove*	1 mm <sup>2</sup> AWG 18	1 groove	1.5 mm <sup>2</sup> AWG 16	2 groove	2.5 mm <sup>2</sup> AWG 14	3 groove	3 mm <sup>2</sup> AWG 12	wide groove	4 mm <sup>2</sup> AWG 12	no groove
Conductor cross-section	Identification																					
0.14-0.37 mm <sup>2</sup> AWG 26-22	no groove																					
0.5 mm <sup>2</sup> AWG 20	no groove																					
0.75 mm <sup>2</sup> AWG 18	1 groove*																					
1 mm <sup>2</sup> AWG 18	1 groove																					
1.5 mm <sup>2</sup> AWG 16	2 groove																					
2.5 mm <sup>2</sup> AWG 14	3 groove																					
3 mm <sup>2</sup> AWG 12	wide groove																					
4 mm <sup>2</sup> AWG 12	no groove																					
Han E® Han® EE, Han® EEE, Coding pin  <p>for crimp inserts only With loss of one contact</p>			09 33 000 9954																			

## Features

- High packing density

## Technical characteristics

Number of contacts	8
Rated current	16 A
Rated voltage	400 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 1 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Mating cycles with other HMC components	$\geq 10000$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

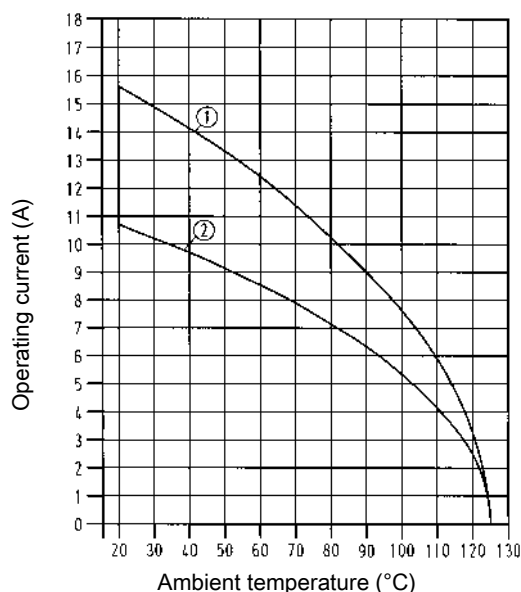
## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2

#### Crimp termination



① 24 B hoods/housings with 6 modules Conductor cross-section 2.5 mm<sup>2</sup>

② 24 B hoods/housings with 6 modules Conductor cross-section 1.5 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
UL 2237 PVVA2.E318390  
CSA-C22.2 No. 182.3 PVVA8.E318390  
DNV GL

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

### Coding pin

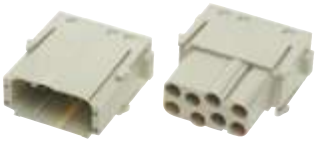
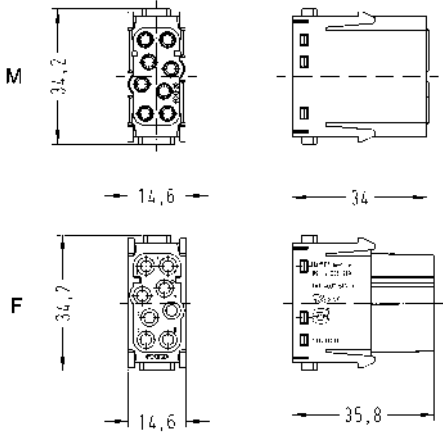
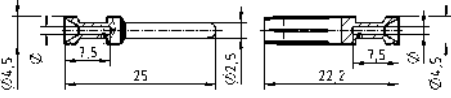

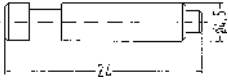
Use of the coding pin prevents incorrect mating to other connectors of the same type. The male pin should be omitted from the opposing cavity in the male insert.

Number of contacts

# 8

16 A 400 V 6 kV 3

Han  
HMC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																		
		Male	Female																			
<p>Han-Modular®, Han® EE module, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.14 ... 4	09 14 008 3001	09 14 008 3101	 <p>Contact arrangement (view from termination side) Stripping length 7.5 mm</p>																		
<p>Han E® HMC, Crimp contact, Contact surface: HMC gold plated</p>	0.14 ... 0.37 0.5 0.75 1 1.5 2.5 4	09 33 200 6117 09 33 200 6122 09 33 200 6115 09 33 200 6118 09 33 200 6116 09 33 200 6123 09 33 200 6119	09 33 200 6217 09 33 200 6222 09 33 200 6215 09 33 200 6218 09 33 200 6216 09 33 200 6223 09 33 200 6221	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm<sup>2</sup> AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar Stripping length 7.5 mm</p>	Conductor cross-section	Identification	0.14-0.37 mm <sup>2</sup> AWG 26-22	no groove	0.5 mm <sup>2</sup> AWG 20	no groove	0.75 mm <sup>2</sup> AWG 18	1 groove*	1 mm <sup>2</sup> AWG 18	1 groove	1.5 mm <sup>2</sup> AWG 16	2 groove	2.5 mm <sup>2</sup> AWG 14	3 groove	3 mm <sup>2</sup> AWG 12	wide groove	4 mm <sup>2</sup> AWG 12	no groove
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4 mm <sup>2</sup> AWG 12	no groove																					
<p>Han E®, Han® EE, Han® EEE, Coding pin</p>  <p>for crimp inserts only With loss of one contact</p>			09 33 000 9954																			

## Features

- Suitable for Han E<sup>®</sup> crimp contacts
- Designed for a high working voltage up to 830 V
- Finger safe male and female contacts

## Technical characteristics

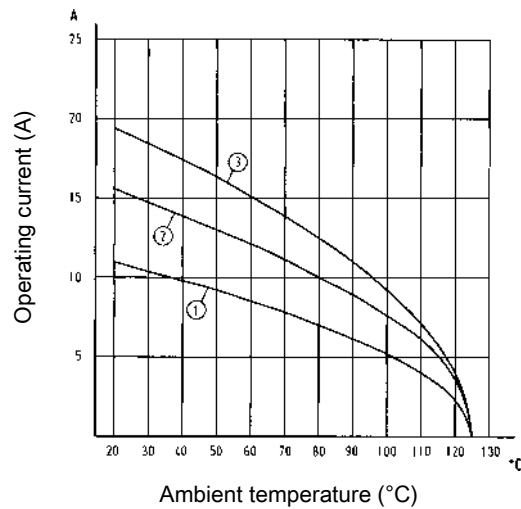
Number of contacts	6
Rated current	16 A
Rated voltage	830 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤1 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Mating cycles with other HMC components	≥10000
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① 24 B hoods/housings with 6 modules Conductor cross-section 1.5 mm<sup>2</sup>
- ② 24 B hoods/housings with 6 modules Conductor cross-section 2.5 mm<sup>2</sup>
- ③ 24 B hoods/housings with 6 modules Conductor cross-section 4 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
UL 2237 PVVA2.E318390  
CSA-C22.2 No. 182.3 PVVA8.E318390  
DNV GL

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

### Coding pin

Use of the coding pin prevents incorrect mating to other connectors of the same type. The male pin should be omitted from the opposing cavity in the male insert.


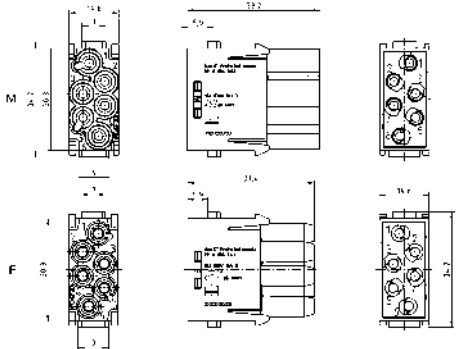
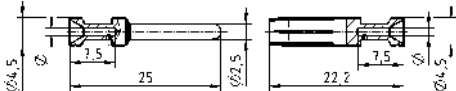

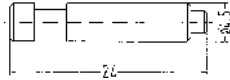


Number of contacts

# 6

16 A 830 V 8 kV 3

Han  
HMC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																		
		Male	Female																			
Han-Modular®, Han E® Protected module, Crimp termination  <p>Please order crimp contacts separately.</p>	0.14 ... 4	09 14 006 3041	09 14 006 3141	 <p>Contact arrangement (view from termination side)</p>																		
Han E® HMC, Crimp contact, Contact surface: HMC gold plated	0.14 ... 0.37 0.5 0.75 1 1.5 2.5 4	09 33 200 6117 09 33 200 6122 09 33 200 6115 09 33 200 6118 09 33 200 6116 09 33 200 6123 09 33 200 6119	09 33 200 6217 09 33 200 6222 09 33 200 6215 09 33 200 6218 09 33 200 6216 09 33 200 6223 09 33 200 6221	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm<sup>2</sup> AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar</p> <p>Stripping length 7.5 mm</p>	Conductor cross-section	Identification	0.14-0.37 mm <sup>2</sup> AWG 26-22	no groove	0.5 mm <sup>2</sup> AWG 20	no groove	0.75 mm <sup>2</sup> AWG 18	1 groove*	1 mm <sup>2</sup> AWG 18	1 groove	1.5 mm <sup>2</sup> AWG 16	2 groove	2.5 mm <sup>2</sup> AWG 14	3 groove	3 mm <sup>2</sup> AWG 12	wide groove	4 mm <sup>2</sup> AWG 12	no groove
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4 mm <sup>2</sup> AWG 12	no groove																					
Han E®, Han® EE, Han® EEE, Coding pin  <p>for crimp inserts only With loss of one contact</p>			09 33 000 9954																			

## Features

- Suitable for Han E® crimp contacts
- Higher density of crimping contacts
- Standard module for power up to 16 A
- Also suitable as a reliable signal connector

## Technical characteristics

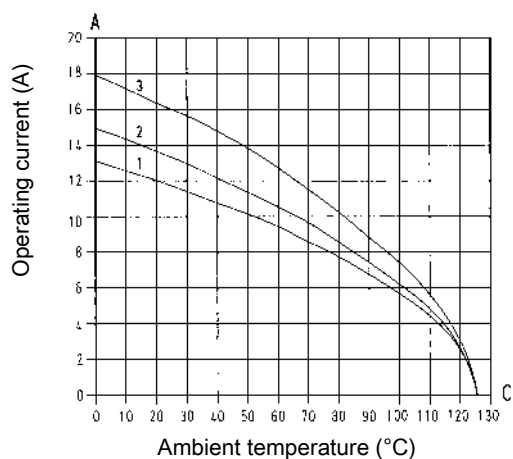
Number of contacts	20
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 1 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Mating cycles with other HMC components	$\geq 10000$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① 24 B hoods/housings with 3 modules Conductor cross-section 1.5 mm<sup>2</sup>
- ② 24 B hoods/housings with 3 modules Conductor cross-section 2.5 mm<sup>2</sup>
- ③ 24 B hoods/housings with 3 modules Conductor cross-section 4 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 DNV GL  
 UL 2237 PVVA2.E318390  
 CSA-C22.2 No. 182.3 PVVA8.E318390

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

### Coding pin


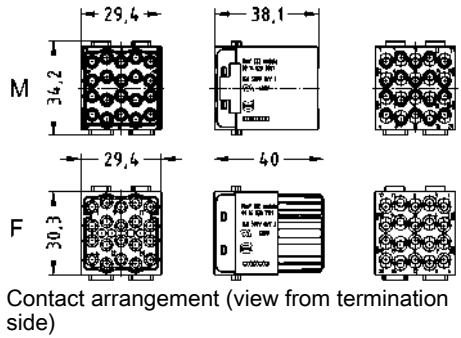
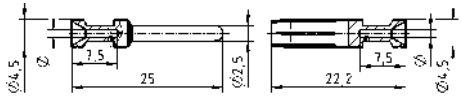

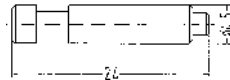
Use of the coding pin prevents incorrect mating to other connectors of the same type. The male pin should be omitted from the opposing cavity in the male insert.

Number of contacts

# 20

16 A 500 V 6 kV 3

Han  
HMC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																		
		Male	Female																			
Han-Modular®, Han® EEE module, Crimp termination  <p>Please order crimp contacts separately.</p>	0.14 ... 4	09 14 020 3001	09 14 020 3101	 <p>Contact arrangement (view from termination side)</p>																		
Han E® HMC, Crimp contact, Contact surface: HMC gold plated	0.14 ... 0.37 0.5 0.75 1 1.5 2.5 4	09 33 200 6117 09 33 200 6122 09 33 200 6115 09 33 200 6118 09 33 200 6116 09 33 200 6123 09 33 200 6119	09 33 200 6217 09 33 200 6222 09 33 200 6215 09 33 200 6218 09 33 200 6216 09 33 200 6223 09 33 200 6221	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm<sup>2</sup> AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar</p>	Conductor cross-section	Identification	0.14-0.37 mm <sup>2</sup> AWG 26-22	no groove	0.5 mm <sup>2</sup> AWG 20	no groove	0.75 mm <sup>2</sup> AWG 18	1 groove*	1 mm <sup>2</sup> AWG 18	1 groove	1.5 mm <sup>2</sup> AWG 16	2 groove	2.5 mm <sup>2</sup> AWG 14	3 groove	3 mm <sup>2</sup> AWG 12	wide groove	4 mm <sup>2</sup> AWG 12	no groove
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Han E®, Han® EE, Han® EEE, Coding pin  <p>for crimp inserts only With loss of one contact</p>			09 33 000 9954																			

## Features

- Standard module for signal up to 10 A

## Technical characteristics

Number of contacts	12
Rated current	10 A
Rated voltage	250 V
Rated impulse voltage	4 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Mating cycles with other HMC components	≥10000
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

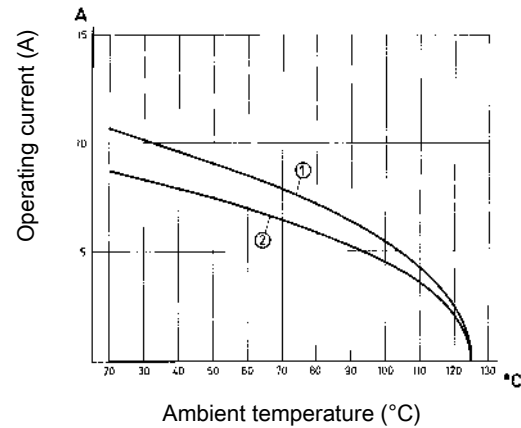
## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2

#### Crimp termination



① 24 B hoods/housings with 6 modules Conductor cross-section 1.5 mm<sup>2</sup>

② 24 B hoods/housings with 6 modules Conductor cross-section 1 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
DNV GL

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

### Coding pin


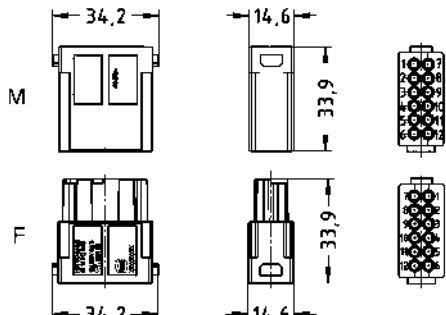

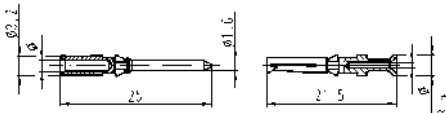

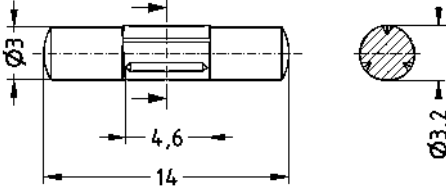
Use of the coding pin prevents incorrect mating to other connectors of the same type. The male pin should be omitted from the opposing cavity in the male insert.

Number of contacts

# 12

10 A 250 V 4 kV 3

Han  
HMC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																												
		Male	Female																													
Han-Modular <sup>®</sup> , Han DD <sup>®</sup> module, Crimp termination  <p>Please order crimp contacts separately.</p>	0.14 ... 2.5	09 14 012 3002	09 14 012 3102	 <p>Contact arrangement (view from termination side)</p>																												
Han D <sup>®</sup> HMC, Crimp contact, Contact surface: HMC gold plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 200 6124 09 15 200 6123 09 15 200 6125 09 15 200 6122 09 15 200 6121 09 15 200 6126	09 15 200 6224 09 15 200 6223 09 15 200 6225 09 15 200 6222 09 15 200 6221 09 15 200 6226	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	Ø	Stripping length	0.14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm
Conductor cross-section	AWG	Ø	Stripping length																													
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2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm																													
Han D <sup>®</sup> , Han DD <sup>®</sup> , Han <sup>®</sup> DDD, Coding pin  <p>Only for crimp termination With loss of one contact</p>			09 33 000 9915																													

## Features

- 36 Han D<sup>®</sup> contacts up to 400 V
- Suitable for transmitting power (10 A) and signals in one module
- e.g. for three phase AC motors including feedback for all six axes of a robot

## Technical characteristics

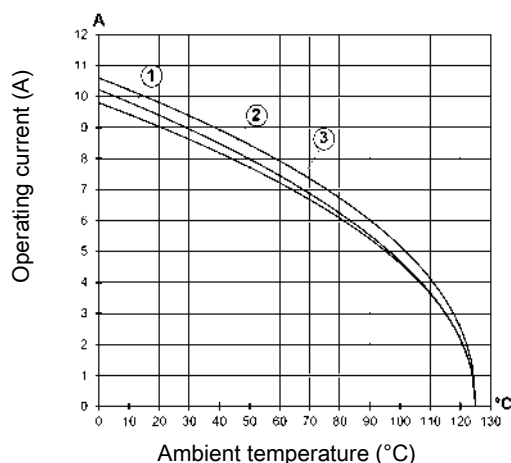
Number of contacts	36
Rated current	10 A
Rated voltage	400 V
Rated impulse voltage	6 kV
Pollution degree	3
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Mating cycles with other HMC components	≥10000
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption, compliant

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① 24 B hoods/housings with 3 modules Conductor cross-section 1 mm<sup>2</sup>
- ② 24 B hoods/housings with 3 modules Conductor cross-section 1.5 mm<sup>2</sup>
- ③ 24 B hoods/housings with 3 modules Conductor cross-section 2.5 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

### Coding pin


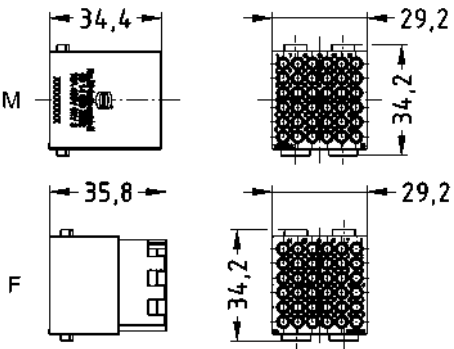

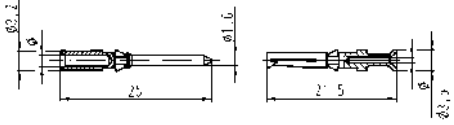

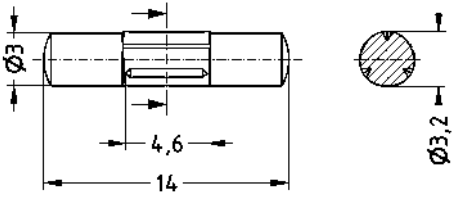
Use of the coding pin prevents incorrect mating to other connectors of the same type. The male pin should be omitted from the opposing cavity in the male insert.

Number of contacts

# 36

10 A 400 V 6 kV 3

Han  
HMC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																												
		Male	Female																													
Han-Modular <sup>®</sup> , Han DD <sup>®</sup> module, Crimp termination  <p>Please order crimp contacts separately.</p>	0.14 ... 2.5	09 14 036 3002	09 14 036 3102	 <p>Contact arrangement (view from termination side)</p>																												
Han D <sup>®</sup> HMC, Crimp contact, Contact surface: HMC gold plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 200 6124 09 15 200 6123 09 15 200 6125 09 15 200 6122 09 15 200 6121 09 15 200 6126	09 15 200 6224 09 15 200 6223 09 15 200 6225 09 15 200 6222 09 15 200 6221 09 15 200 6226	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>Ø 14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>Ø 75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	Ø	Stripping length	Ø 14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm	Ø 75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm
Conductor cross-section	AWG	Ø	Stripping length																													
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2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm																													
Han D <sup>®</sup> , Han DD <sup>®</sup> , Han <sup>®</sup> DDD, Coding pin  <p>Only for crimp termination With loss of one contact</p>			09 33 000 9915																													

## Features

- Suitable for Han D® crimp contacts
- High packing density

## Technical characteristics

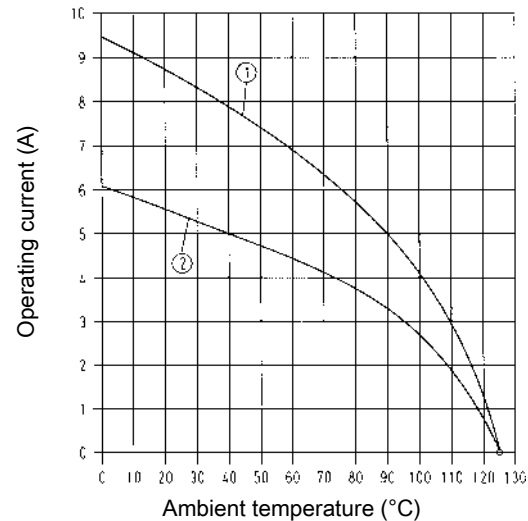
Number of contacts	17
Rated current	10 A
Rated voltage	160 V
Rated impulse voltage	2.5 kV
Pollution degree	3
Rated voltage acc. to UL	250 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 3 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Mating cycles with other HMC components	$\geq 10000$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



① 24 B hoods/housings with 6 modules Conductor cross-section 1.5 mm<sup>2</sup>

② 24 B hoods/housings with 6 modules Conductor cross-section 1 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
UL 2237 PVVA2.E318390  
CSA-C22.2 No. 182.3 PVVA8.E318390  
DNV GL

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

### Coding pin

Use of the coding pin prevents incorrect mating to other connectors of the same type. The male pin should be omitted from the opposing cavity in the male insert.


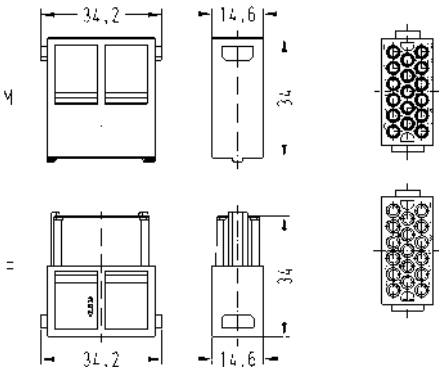

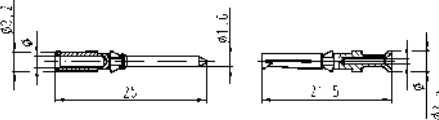

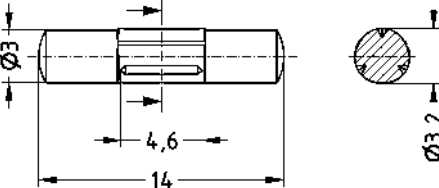


Number of contacts

# 17

10 A 160 V 2.5 kV 3

Han  
HMC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																					
		Male	Female																						
Han-Modular®, Han® DDD module, Crimp termination  <p>Please order crimp contacts separately.</p>	0.14 ... 2.5	09 14 017 3001	09 14 017 3101	 <p>Contact arrangement (view from termination side)</p>																					
Han D® HMC, Crimp contact, Contact surface: HMC gold plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 200 6124 09 15 200 6123 09 15 200 6125 09 15 200 6122 09 15 200 6121 09 15 200 6126	09 15 200 6224 09 15 200 6223 09 15 200 6225 09 15 200 6222 09 15 200 6221 09 15 200 6226	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	ø	Stripping length	0.14-0.37 mm <sup>2</sup> AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup> AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup> AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup> AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup> AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	6 mm
Conductor cross-section	ø	Stripping length																							
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1.5 mm <sup>2</sup> AWG 16	1.75 mm	8 mm																							
2.5 mm <sup>2</sup> AWG 14	2.25 mm	6 mm																							
Han D®, Han DD®, Han® DDD, Coding pin  <p>Only for crimp termination With loss of one contact</p>			09 33 000 9915																						

## Features

- Suitable for standard D-Sub crimp contacts
- High packing density

## Technical characteristics

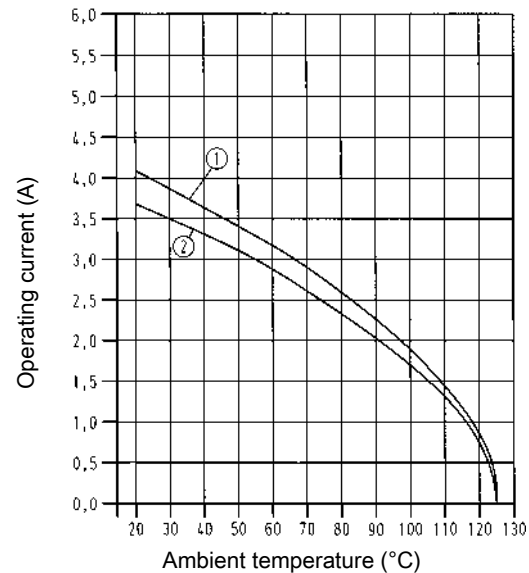
Number of contacts	25
Rated current	4 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Rated voltage acc. to UL	30 V
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤10 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Mating cycles with other HMC components	≥10000
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① 24 B hoods/housings with 6 modules; turned contacts Conductor cross-section 0.5 mm<sup>2</sup>
- ② 24 B hoods/housings with 6 modules; stamped contacts Conductor cross-section 0.5 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076

## Details


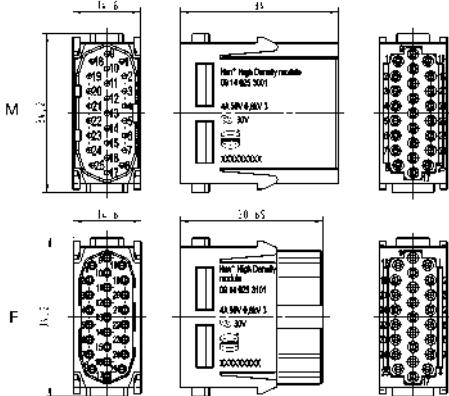

Guide pins and bushes are recommended (see chapter Han 80).

Number of contacts

# 25

4 A 50 V 0.8 kV 3

Han  
HMC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)												
		Male	Female													
Han-Modular®, Han® High Density module, Crimp termination  <p>Please order crimp contacts separately.</p>	0.09 ... 0.52	09 14 025 3001	09 14 025 3101	 <p>Contact arrangement (view from termination side)</p> <table border="1"> <thead> <tr> <th>導體斷面積</th> <th>ø</th> <th>ストリップ 長さ</th> </tr> </thead> <tbody> <tr> <td>0.08 - 0.21 mm<sup>2</sup></td> <td>AWG 28-24</td> <td>4 mm</td> </tr> <tr> <td>0.13 - 0.33 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>4 mm</td> </tr> <tr> <td>0.33 - 0.52 mm<sup>2</sup></td> <td>AWG 22-20</td> <td>4 mm</td> </tr> </tbody> </table>	導體斷面積	ø	ストリップ 長さ	0.08 - 0.21 mm <sup>2</sup>	AWG 28-24	4 mm	0.13 - 0.33 mm <sup>2</sup>	AWG 26-22	4 mm	0.33 - 0.52 mm <sup>2</sup>	AWG 22-20	4 mm
導體斷面積	ø	ストリップ 長さ														
0.08 - 0.21 mm <sup>2</sup>	AWG 28-24	4 mm														
0.13 - 0.33 mm <sup>2</sup>	AWG 26-22	4 mm														
0.33 - 0.52 mm <sup>2</sup>	AWG 22-20	4 mm														
D-Sub, Crimp contact, Contact surface: HMC gold plated 	0.08 ... 0.21 0.13 ... 0.33 0.33 ... 0.52	09 67 000 7570 09 67 000 5570 09 67 000 8570	09 67 000 7470 09 67 000 5470 09 67 000 8470													

## Technical characteristics

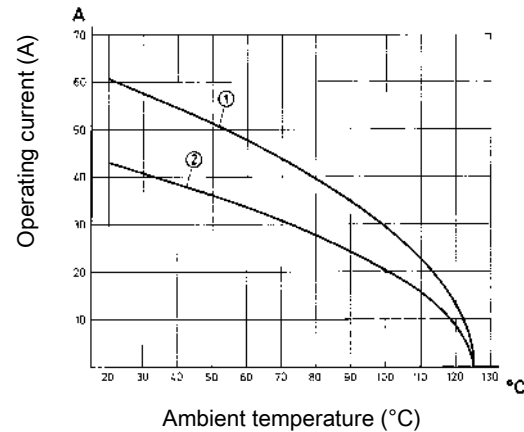
Number of contacts	2
Rated current	40 A
Rated voltage	1000 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 1 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Mating cycles with other HMC components	$\geq 10000$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① 24 B hoods/housings with 6 modules Conductor cross-section 10 mm<sup>2</sup>  
 ② 24 B hoods/housings with 6 modules Conductor cross-section 6 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 DNV GL

## Details

Contact resistance Han® C crimp contact:  $\leq 1 \text{ m}\Omega$

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


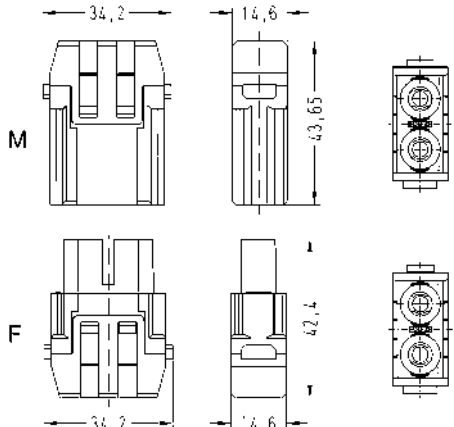

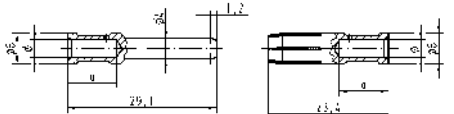
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts

# 2

40 A 1.000 V 8 kV 3

Han  
HMC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																								
		Male	Female																									
Han-Modular <sup>®</sup> , Han <sup>®</sup> 40 A module, Crimp termination, UL: 600 V  <p>Please order crimp contacts separately.</p>	1.5 ... 10	09 14 002 3002	09 14 002 3102	 <p>Contact arrangement (view from termination side)</p>																								
Han <sup>®</sup> C HMC, Crimp contact, Contact surface: HMC gold plated 	1.5 2.5 4 6 10	09 32 200 6114 09 32 200 6115 09 32 200 6119 09 32 200 6118 09 32 200 6117	09 32 200 6224 09 32 200 6225 09 32 200 6229 09 32 200 6228 09 32 200 6227	 <table border="1"> <thead> <tr> <th>Wire gauge</th> <th></th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>9.5 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>9.5 mm</td> </tr> <tr> <td>4 mm<sup>2</sup></td> <td>AWG 12</td> <td>2.85 mm</td> <td>9.5 mm</td> </tr> <tr> <td>6 mm<sup>2</sup></td> <td>AWG 10</td> <td>3.5 mm</td> <td>9.5 mm</td> </tr> <tr> <td>10 mm<sup>2</sup></td> <td>AWG 8</td> <td>4.3 mm</td> <td>15 mm</td> </tr> </tbody> </table>	Wire gauge		ø	Stripping length	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	9.5 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	9.5 mm	4 mm <sup>2</sup>	AWG 12	2.85 mm	9.5 mm	6 mm <sup>2</sup>	AWG 10	3.5 mm	9.5 mm	10 mm <sup>2</sup>	AWG 8	4.3 mm	15 mm
Wire gauge		ø	Stripping length																									
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2.5 mm <sup>2</sup>	AWG 14	2.25 mm	9.5 mm																									
4 mm <sup>2</sup>	AWG 12	2.85 mm	9.5 mm																									
6 mm <sup>2</sup>	AWG 10	3.5 mm	9.5 mm																									
10 mm <sup>2</sup>	AWG 8	4.3 mm	15 mm																									

## Technical characteristics

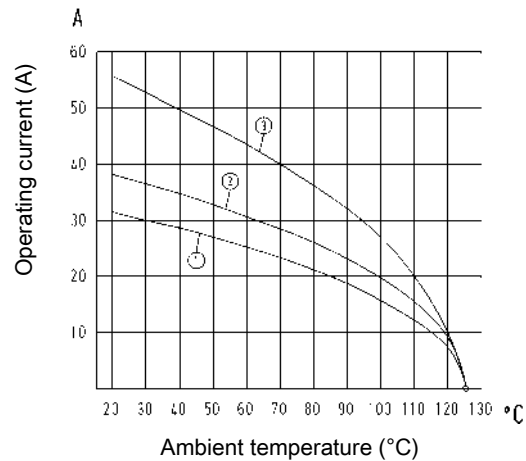
Number of contacts	3
Rated current	40 A
Rated voltage	690 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated current acc. to UL	40 A
Rated voltage acc. to UL	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 1 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Mating cycles with other HMC components	$\geq 10000$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① 24 B hoods/housings with 6 modules Conductor cross-section 4 mm<sup>2</sup>
- ② 24 B hoods/housings with 6 modules Conductor cross-section 6 mm<sup>2</sup>
- ③ 24 B hoods/housings with 6 modules Conductor cross-section 10 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
DNV GL

## Details

Contact resistance Han® C crimp contact:  $\leq 1 \text{ m}\Omega$

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


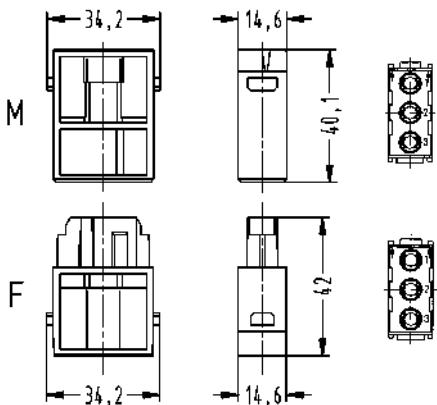

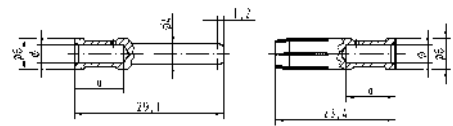
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Number of contacts

# 3

40 A 690 V 8 kV 3

Han  
HMC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																								
		Male	Female																									
Han-Modular <sup>®</sup> , Han <sup>®</sup> C module, Crimp termination  <p>Please order crimp contacts separately.</p>	1.5 ... 6	09 14 003 3001	09 14 003 3101	 <p>Contact arrangement (view from termination side)</p>																								
Han <sup>®</sup> C HMC, Crimp contact, Contact surface: HMC gold plated 	1.5 2.5 4 6 10	09 32 200 6114 09 32 200 6115 09 32 200 6119 09 32 200 6118 09 32 200 6117	09 32 200 6224 09 32 200 6225 09 32 200 6229 09 32 200 6228 09 32 200 6227	 <table border="1"> <thead> <tr> <th>Wire gauge</th> <th></th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>9.5 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>9.5 mm</td> </tr> <tr> <td>4 mm<sup>2</sup></td> <td>AWG 12</td> <td>2.85 mm</td> <td>9.5 mm</td> </tr> <tr> <td>6 mm<sup>2</sup></td> <td>AWG 10</td> <td>3.5 mm</td> <td>9.5 mm</td> </tr> <tr> <td>10 mm<sup>2</sup></td> <td>AWG 8</td> <td>4.3 mm</td> <td>15 mm</td> </tr> </tbody> </table>	Wire gauge		ø	Stripping length	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	9.5 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	9.5 mm	4 mm <sup>2</sup>	AWG 12	2.85 mm	9.5 mm	6 mm <sup>2</sup>	AWG 10	3.5 mm	9.5 mm	10 mm <sup>2</sup>	AWG 8	4.3 mm	15 mm
Wire gauge		ø	Stripping length																									
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6 mm <sup>2</sup>	AWG 10	3.5 mm	9.5 mm																									
10 mm <sup>2</sup>	AWG 8	4.3 mm	15 mm																									

## Features

- Suitable for Han® C crimp contacts
- Designed for a high working voltage up to 830 V
- Finger safe male and female contacts
- High density of contacts

## Technical characteristics

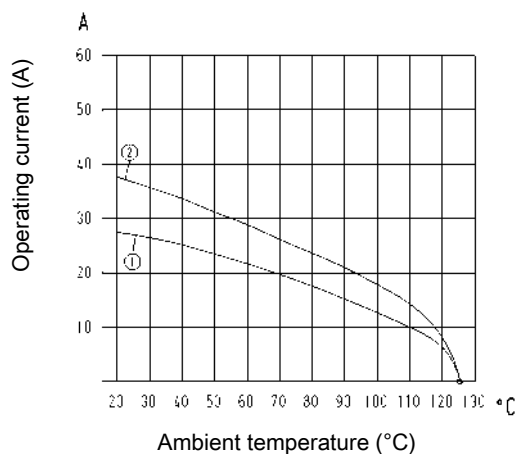
Number of contacts	4
Rated current	40 A
Rated voltage	830 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 1 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Mating cycles with other HMC components	$\geq 10000$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① 24 B hoods/housings with 6 modules Conductor cross-section 4 mm<sup>2</sup>
- ② 24 B hoods/housings with 6 modules Conductor cross-section 6 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
DNV GL

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.


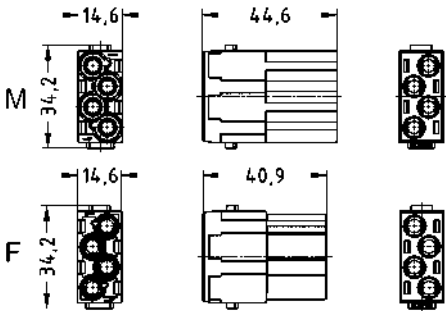

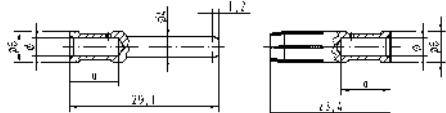


Number of contacts

# 4

40 A 830 V 8 kV 3

Han  
HMC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																								
		Male	Female																									
Han-Modular®, Han® CC Protected module, Crimp termination  <p>Please order crimp contacts separately.</p>	1.5 ... 6	09 14 004 3041	09 14 004 3141	 <p>Contact arrangement (view from termination side)</p>																								
Han® C HMC, Crimp contact, Contact surface: HMC gold plated 	1.5 2.5 4 6 10	09 32 200 6114 09 32 200 6115 09 32 200 6119 09 32 200 6118 09 32 200 6117	09 32 200 6224 09 32 200 6225 09 32 200 6229 09 32 200 6228 09 32 200 6227	 <table border="1"> <thead> <tr> <th colspan="2">Wire gauge</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>9.5 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>9.5 mm</td> </tr> <tr> <td>4 mm<sup>2</sup></td> <td>AWG 12</td> <td>2.85 mm</td> <td>9.5 mm</td> </tr> <tr> <td>6 mm<sup>2</sup></td> <td>AWG 10</td> <td>3.5 mm</td> <td>9.5 mm</td> </tr> <tr> <td>10 mm<sup>2</sup></td> <td>AWG 8</td> <td>4.3 mm</td> <td>15 mm</td> </tr> </tbody> </table>	Wire gauge		ø	Stripping length	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	9.5 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	9.5 mm	4 mm <sup>2</sup>	AWG 12	2.85 mm	9.5 mm	6 mm <sup>2</sup>	AWG 10	3.5 mm	9.5 mm	10 mm <sup>2</sup>	AWG 8	4.3 mm	15 mm
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## Features

- 3 contacts (40 A) for power circuits and 4 contacts (10 A) for signal circuits
- Ideal as motor drive connector
- Finger safe male and female contacts

## Technical characteristics

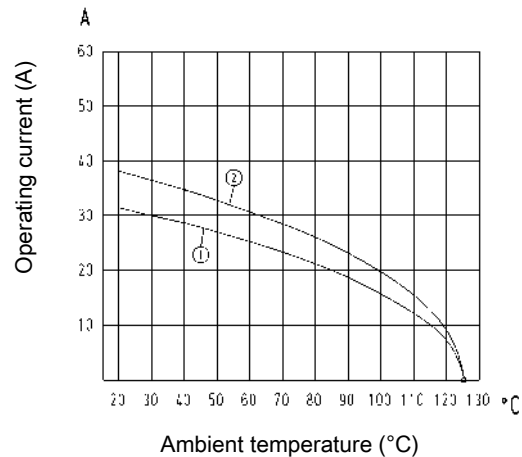
Number of contacts	3
Additional contacts	+ 4 additional signal contacts
Rated current	40 A
Rated voltage	830 V
Rated impulse voltage	8 kV
Pollution degree	3
Rated current (signal)	10 A
Rated voltage (signal)	830 V
Rated impulse voltage (signal)	8 kV
Pollution degree (signal)	3
Rated voltage acc. to UL	600 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 1 \text{ m}\Omega, \leq 3 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Mating cycles with other HMC components	$\geq 10000$
Wire outer diameter	$\leq 5 \text{ mm}$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① 24 B hoods/housings with 6 modules Conductor cross-section 4 mm<sup>2</sup>  
 ② 24 B hoods/housings with 6 modules Conductor cross-section 6 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 DNV GL

## Details

Contact resistance Han D® crimp contact:  $\leq 3 \text{ m}\Omega$

Contact resistance Han® C crimp contact:  $\leq 1 \text{ m}\Omega$

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

### Coding pin


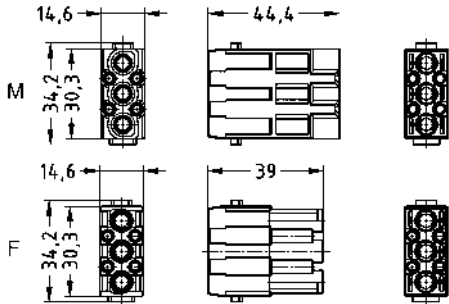

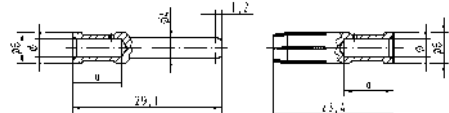

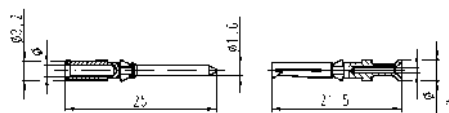

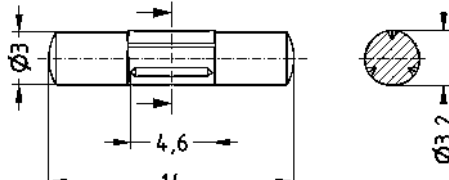
Use of the coding pin prevents incorrect mating to other connectors of the same type. The male pin should be omitted from the opposing cavity in the male insert.

Number of contacts

# 3

40 A 830 V 8 kV 3  
 10 A 830 V 8 kV 3  
 + 4 additional signal contacts

Han  
HMC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																												
		Male	Female																													
Han-Modular®, Han® CD module, Crimp termination  <p>Please order crimp contacts separately.</p>	0.14 ... 6	09 14 007 3001	09 14 007 3101	 <p>Contact arrangement (view from termination side)</p>																												
Han® C HMC, Crimp contact, Contact surface: HMC gold plated 	1.5 2.5 4 6 10	09 32 200 6114 09 32 200 6115 09 32 200 6119 09 32 200 6118 09 32 200 6117	09 32 200 6224 09 32 200 6225 09 32 200 6229 09 32 200 6228 09 32 200 6227	 <table border="1"> <thead> <tr> <th>Wire gauge</th> <th></th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>9.5 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>9.5 mm</td> </tr> <tr> <td>4 mm<sup>2</sup></td> <td>AWG 12</td> <td>2.85 mm</td> <td>9.5 mm</td> </tr> <tr> <td>6 mm<sup>2</sup></td> <td>AWG 10</td> <td>3.5 mm</td> <td>9.5 mm</td> </tr> <tr> <td>10 mm<sup>2</sup></td> <td>AWG 8</td> <td>4.3 mm</td> <td>15 mm</td> </tr> </tbody> </table>	Wire gauge		ø	Stripping length	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	9.5 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	9.5 mm	4 mm <sup>2</sup>	AWG 12	2.85 mm	9.5 mm	6 mm <sup>2</sup>	AWG 10	3.5 mm	9.5 mm	10 mm <sup>2</sup>	AWG 8	4.3 mm	15 mm				
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Han D® HMC, Crimp contact, Contact surface: HMC gold plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 200 6124 09 15 200 6123 09 15 200 6125 09 15 200 6122 09 15 200 6121 09 15 200 6126	09 15 200 6224 09 15 200 6223 09 15 200 6225 09 15 200 6222 09 15 200 6221 09 15 200 6226	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th></th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section		ø	Stripping length	0.14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm
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Han D®, Han DD®, Han® DDD, Coding pin  <p>Only for crimp termination                      With loss of one contact</p>			09 33 000 9915																													

## Features

- Suitable for PoE++

## Technical characteristics

Number of contacts	8
Additional contacts	+ shielding
Rated current	5 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Rated voltage	50 V AC, 60 V DC
Rated voltage acc. to UL	30 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 10 \text{ m}\Omega$
Contact resistance, shielding	$\leq 100 \text{ m}\Omega$
Limiting temperature	-40 ... +85 °C
Mating cycles with other HMC components	$\geq 10000$
Transmission characteristics	Cat. 6 <sub>A</sub> , Class E <sub>A</sub> up to 500 MHz, Cat. 7 <sub>A</sub> , Class F <sub>A</sub> up to 1,000 MHz
Data rate	10 Mbit/s, 100 Mbit/s, 1 Gbit/s, 10 Gbit/s
Material (insert)	Polycarbonate (PC)
Material (shielding)	Zinc die-cast, nickel-plated
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Specifications and approvals


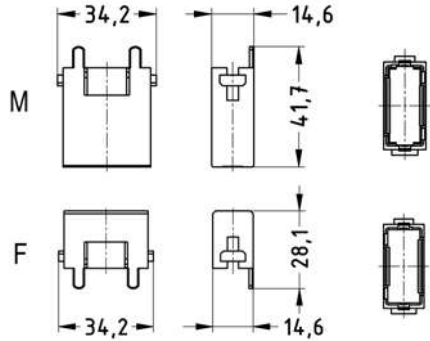

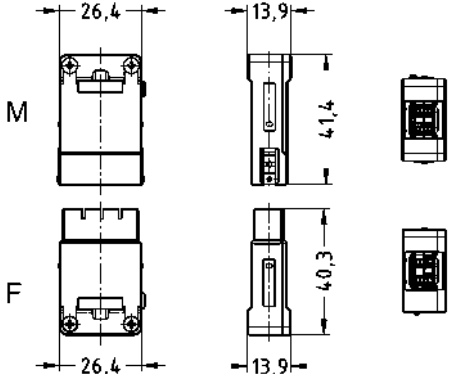

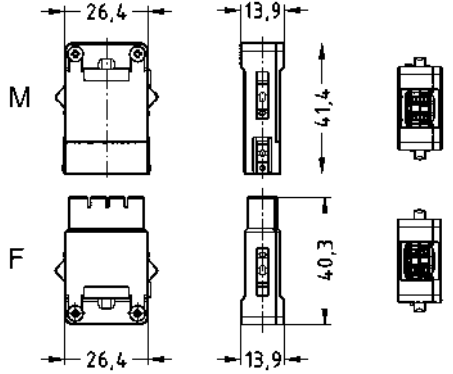
EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL

Number of contacts


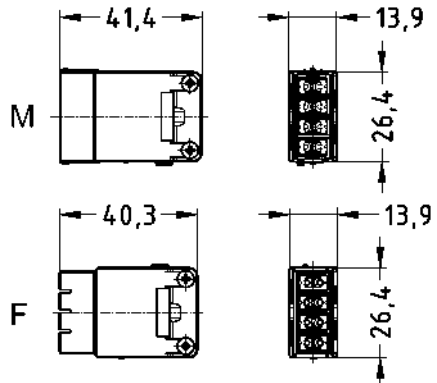

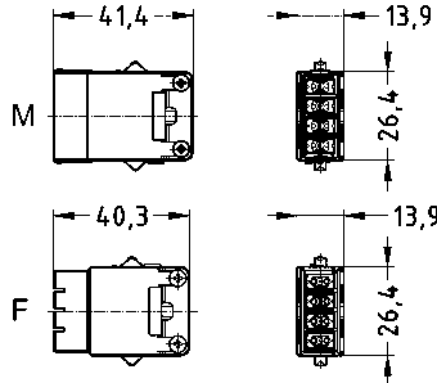

# 8

5 A 50 V 0.8 kV 3  
+ shielding

Han  
HMC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han-Modular®, Adapter module, Han® Gigabit module, Han® Shielded module, Han® Megabit module 		09 14 001 3011	09 14 001 3111	
Han® Gigabit HMC insert, Crimp termination, Cat. 6A  <p>Please order crimp contacts separately. Please order adapter module separately.</p>	0.09 ... 0.52	09 14 208 3011	09 14 208 3111	 <p>Cable outer diameter ≤ 14 mm</p>
Han® Gigabit HMC insert, Crimp termination, Cat. 6A  <p>With additional shield connection to the hinged frame Please order crimp contacts separately. Please order adapter module separately.</p>	0.09 ... 0.52	09 14 208 3012	09 14 208 3112	 <p>Cable outer diameter ≤ 14 mm</p>

Han  
HMC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)												
		Male	Female													
<p>Han® Gigabit HMC insert, Crimp termination, Cat. 7<sub>A</sub></p>  <p>Please order crimp contacts separately. Please order adapter module separately.</p>	0.09 ... 0.52	09 14 208 3031	09 14 208 3131	 <p>Cable outer diameter ≤ 14 mm</p>												
<p>Han® Gigabit HMC insert, Crimp termination, Cat. 7<sub>A</sub></p>  <p>With additional shield connection to the hinged frame Please order crimp contacts separately. Please order adapter module separately.</p>	0.09 ... 0.52	09 14 208 3032	09 14 208 3132	 <p>Cable outer diameter ≤ 14 mm</p>												
<p>D-Sub, Crimp contact, Contact surface: HMC gold plated</p> 	<p>0.08 ... 0.21</p> <p>0.13 ... 0.33</p> <p>0.33 ... 0.52</p>	<p>09 67 000 7570</p> <p>09 67 000 5570</p> <p>09 67 000 8570</p>	<p>09 67 000 7470</p> <p>09 67 000 5470</p> <p>09 67 000 8470</p>	<table border="1"> <thead> <tr> <th>導体断面積</th> <th>φ</th> <th>ストリップ長さ</th> </tr> </thead> <tbody> <tr> <td>0.08 - 0.21 mm<sup>2</sup></td> <td>AWG 28-24</td> <td>4 mm</td> </tr> <tr> <td>0.13 - 0.33 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>4 mm</td> </tr> <tr> <td>0.33 - 0.52 mm<sup>2</sup></td> <td>AWG 22-20</td> <td>4 mm</td> </tr> </tbody> </table>	導体断面積	φ	ストリップ長さ	0.08 - 0.21 mm <sup>2</sup>	AWG 28-24	4 mm	0.13 - 0.33 mm <sup>2</sup>	AWG 26-22	4 mm	0.33 - 0.52 mm <sup>2</sup>	AWG 22-20	4 mm
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0.33 - 0.52 mm <sup>2</sup>	AWG 22-20	4 mm														

## Technical characteristics

Number of contacts	8
Additional contacts	+ shielding
Rated current	10 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Rated voltage acc. to UL	30 V
Rated voltage acc. to CSA	30 V
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 3 \text{ m}\Omega$
Contact resistance, shielding	$\leq 100 \text{ m}\Omega$
Limiting temperature	-40 ... +85 °C
Mating cycles with other HMC components	$\geq 10000$
Transmission characteristics	Cat. 5, Class D up to 100 MHz
Data rate	10 Mbit/s, 100 Mbit/s
Material (insert)	Polycarbonate (PC)
Material (shielding)	Zinc die-cast, nickel-plated
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy

## Technical characteristics

Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
DNV GL

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


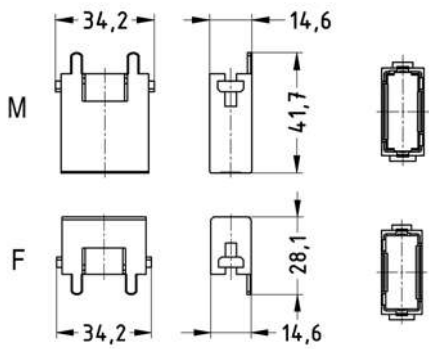

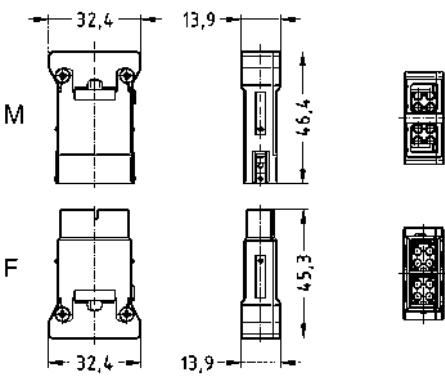

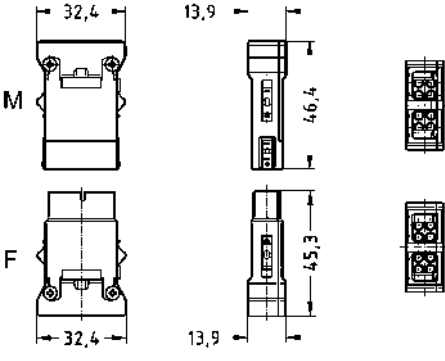
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Number of contacts


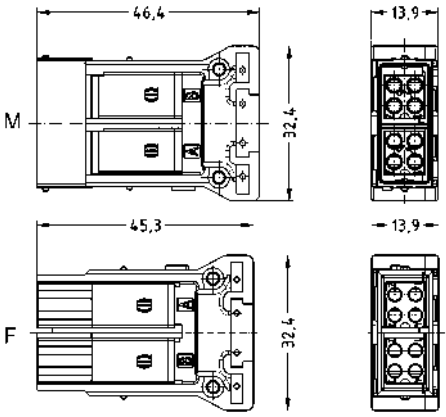

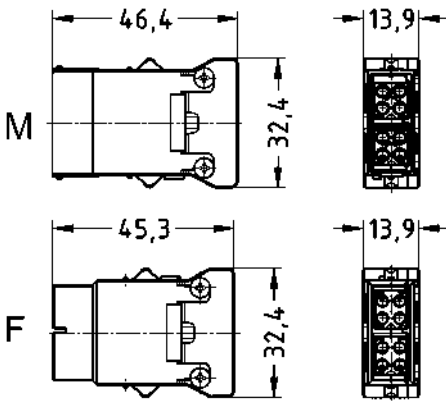

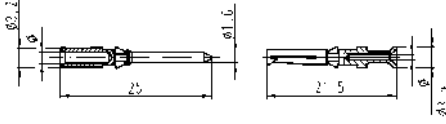
# 8

10 A 50 V 0.8 kV 3  
+ shielding

Han  
HMC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han-Modular®, Adapter module, Han® Gigabit module, Han® Shielded module, Han® Megabit module</p> 		09 14 001 3011	09 14 001 3111	
<p>Han® Megabit HMC insert, 2x 4 contacts, 2 cable entries, Crimp termination</p>  <p>Please order crimp contacts separately. Please order adapter module separately.</p>	0.14 ... 2.5	09 14 208 3016	09 14 208 3116	
<p>Han® Megabit HMC insert, 2x 4 contacts, 2 cable entries, Crimp termination</p>  <p>With additional shield connection to the hinged frame Please order crimp contacts separately. Please order adapter module separately.</p>	0.14 ... 2.5	09 14 208 3017	09 14 208 3117	



Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																												
		Male	Female																													
<p>Han® Megabit insert, 2x 4 contacts, One entry, Crimp termination</p>  <p>Please order crimp contacts separately. Please order adapter module separately.</p>	0.14 ... 2.5	09 14 208 3021	09 14 208 3121																													
<p>Han® Megabit insert, 2x 4 contacts, One entry, Crimp termination</p>  <p>With additional shield connection to the hinged frame Please order crimp contacts separately. Please order adapter module separately.</p>	0.14 ... 2.5	09 14 208 3022	09 14 208 3122																													
<p>Han D® HMC, Crimp contact, Contact surface: HMC gold plated</p> 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 200 6124 09 15 200 6123 09 15 200 6125 09 15 200 6122 09 15 200 6121 09 15 200 6126	09 15 200 6224 09 15 200 6223 09 15 200 6225 09 15 200 6222 09 15 200 6221 09 15 200 6226	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>AWG</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	AWG	ø	Stripping length	0.14-0.37 mm <sup>2</sup>	AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup>	AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup>	AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup>	AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	6 mm
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Han  
HMC

## Features

- High density of contacts
- Time saving rapid termination by use of crimping contacts
- for requirements up to 250 V / 10 A
- for hoods/housings in the Han<sup>®</sup> B HMC series
- Han D<sup>®</sup> HMC contacts available with special HMC gold plating for 10,000 mating cycles

## Technical characteristics

Number of contacts	40, 64
Rated current	10 A
Rated voltage	250 V
Rated impulse voltage	4 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Rated voltage acc. to CSA	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Limiting temperature	-40 ... +125 °C
Mating cycles with other HMC components	≥10000
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

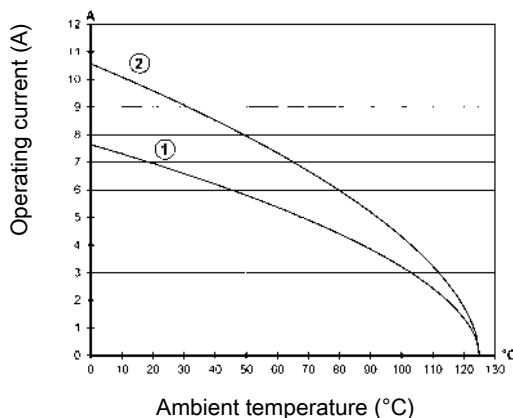
## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2

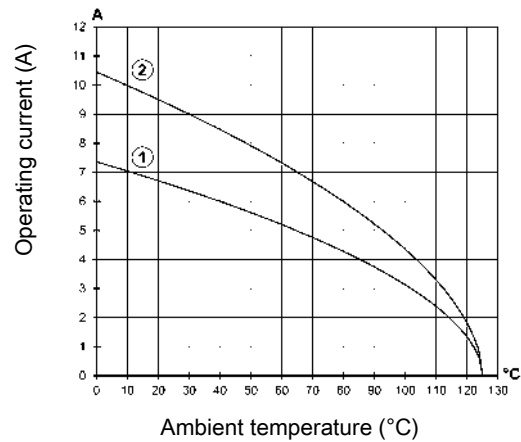
Han<sup>®</sup> 40 D HMC



- ① 0.75 mm<sup>2</sup>
- ② 1.5 mm<sup>2</sup>

## Derating

Han<sup>®</sup> 64 D HMC



- ① 0.75 mm<sup>2</sup>
- ② 1.5 mm<sup>2</sup>


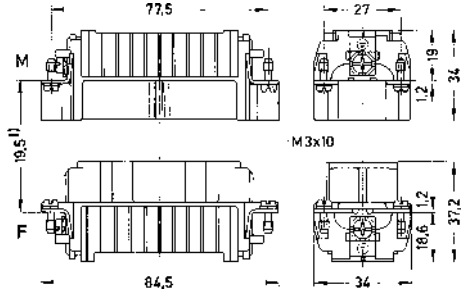
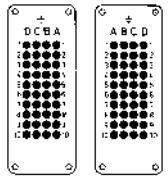
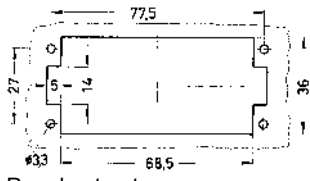
## Specifications and approvals

EN 60664-1  
 IEC 61984  
 EN 175301-801  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL

Number of contacts

**40+**

10 A 250 V 4 kV 3


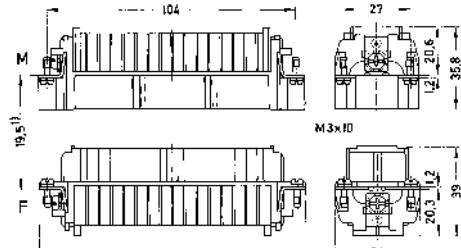
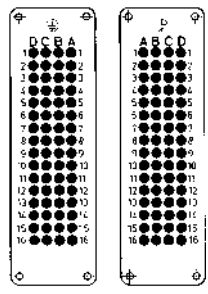
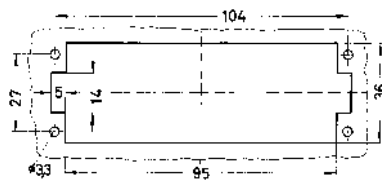
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han D<sup>®</sup> HMC, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.14 ... 2.5	09 21 240 3001	09 21 240 3101	 <p>1) distance for contact max. 21 mm</p>  <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out for use without Hoods/Housings</p>

Number of contacts

**64+**

10 A 250 V 4 kV 3

Han  
HMC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han D<sup>®</sup> HMC, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.14 ... 2.5	09 21 264 3001	09 21 264 3101	 <p>1) distance for contact max. 21 mm</p>  <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out for use without Hoods/Housings</p>

## Features

- High density of contacts
- Time saving rapid termination by use of crimping contacts
- for requirements up to 250 V / 10 A
- for hoods/housings in the Han<sup>®</sup> B HMC series
- Han D<sup>®</sup> HMC contacts available with special HMC gold plating for 10,000 mating cycles

## Technical characteristics

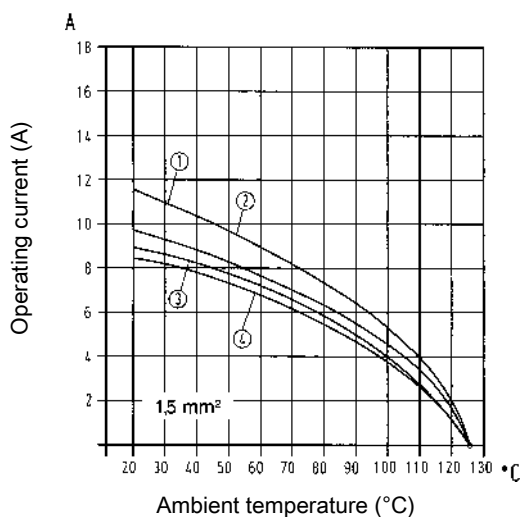
Number of contacts	24, 42, 72, 108
Rated current	10 A
Rated voltage	250 V
Rated impulse voltage	4 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Rated voltage acc. to CSA	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Limiting temperature	-40 ... +125 °C
Mating cycles with other HMC components	≥10000
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Derating

### Current carrying capacity

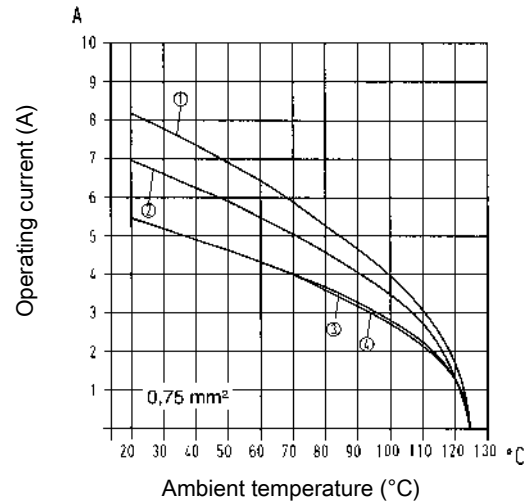
The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Han<sup>®</sup> 24 DD HMC
- ② Han<sup>®</sup> 42 DD HMC
- ③ Han<sup>®</sup> 72 DD HMC
- ④ Han<sup>®</sup> 108 DD HMC

## Derating



- ① Han<sup>®</sup> 24 DD HMC
- ② Han<sup>®</sup> 42 DD HMC
- ③ Han<sup>®</sup> 72 DD HMC
- ④ Han<sup>®</sup> 108 DD HMC

## Specifications and approvals

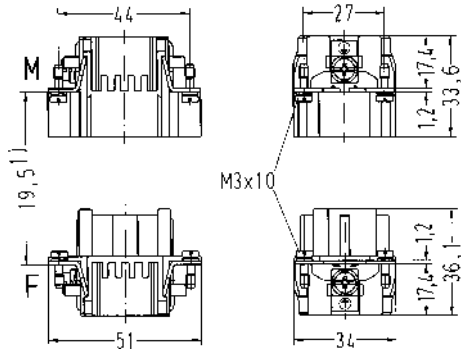
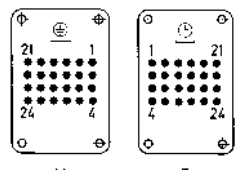
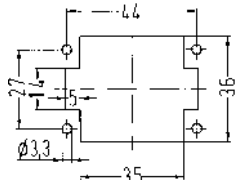
EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL

Number of contacts

**24+**

10 A 250 V 4 kV 3

Han  
HMC


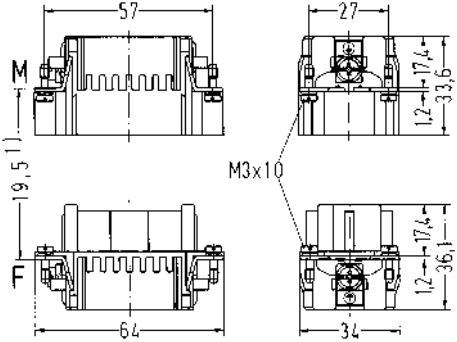
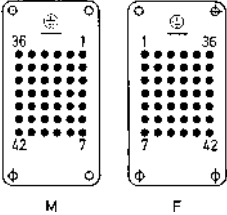
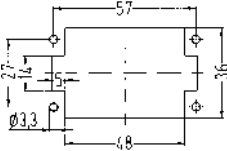
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han DD<sup>®</sup> HMC, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.14 ... 2.5	09 16 224 3001	09 16 224 3101	 <p>1) distance for contact max. 21 mm</p>  <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out for use without Hoods/Housings</p>

Number of contacts

**42+**

10 A 250 V 4 kV 3

Han  
HMC


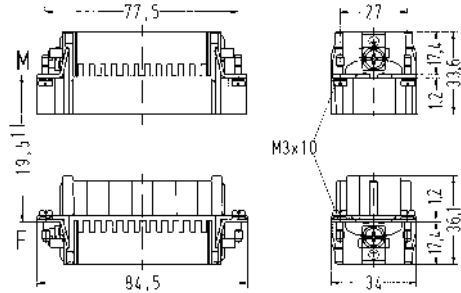
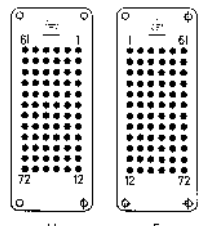
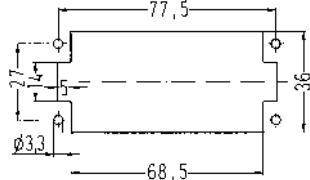
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han DD® HMC, Crimp termination   <p>Please order crimp contacts separately.</p>	0.14 ... 2.5	09 16 242 3001	09 16 242 3101	 <p>1) distance for contact max. 21 mm</p>  <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out for use without Hoods/Housings</p>

Number of contacts

**72+**

10 A 250 V 4 kV 3

Han  
HMC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han DD <sup>®</sup> HMC, Crimp termination  Please order crimp contacts separately.	0.14 ... 2.5	09 16 272 3001	09 16 272 3101	 1) distance for contact max. 21 mm   Contact arrangement (view from termination side)   Panel cut out for use without Hoods/Housings


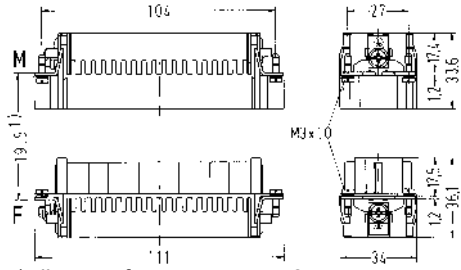
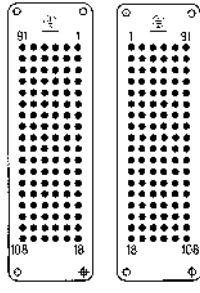
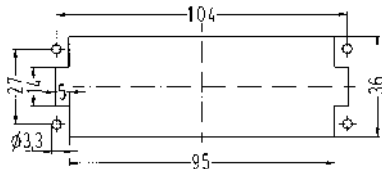


Number of contacts

**108+**

10 A 250 V 4 kV 3

Han HMC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han DD<sup>®</sup> HMC, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.14 ... 2.5	09 16 208 3001	09 16 208 3101	 <p>1) distance for contact max. 21 mm</p>  <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out for use without Hoods/Housings</p>

## Features

- Time saving rapid termination by use of crimping contacts
- for hoods/housings in the Han<sup>®</sup> B HMC series
- Han E<sup>®</sup> HMC contacts available with special HMC gold plating for 10,000 mating cycles

## Technical characteristics

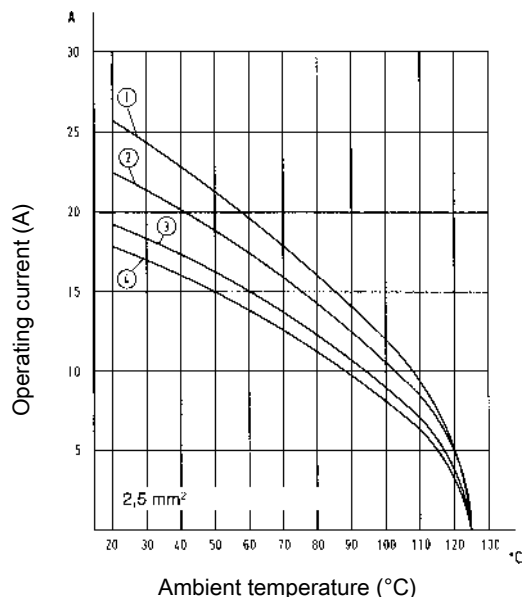
Number of contacts	6, 10, 16, 24
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Insulation resistance	>10 <sup>10</sup> Ω
Limiting temperature	-40 ... +125 °C
Mating cycles with other HMC components	≥10000
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Derating

### Current carrying capacity

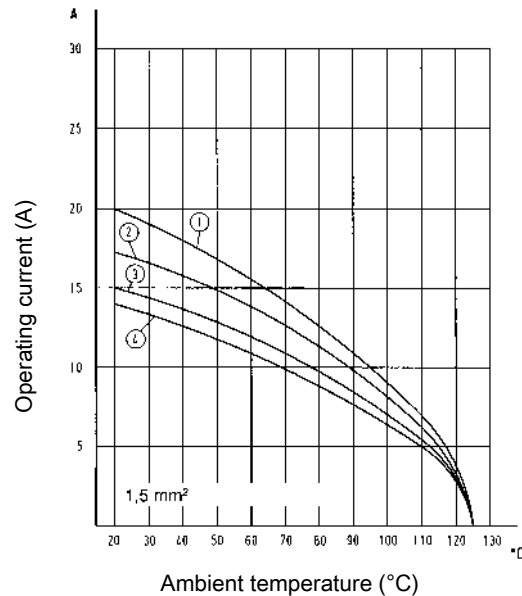
The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Han<sup>®</sup> 6 E HMC
- ② Han<sup>®</sup> 10 E HMC
- ③ Han<sup>®</sup> 16 E HMC
- ④ Han<sup>®</sup> 24 E HMC

## Derating



- ① Han<sup>®</sup> 6 E HMC
- ② Han<sup>®</sup> 10 E HMC
- ③ Han<sup>®</sup> 16 E HMC
- ④ Han<sup>®</sup> 24 E HMC

## Specifications and approvals


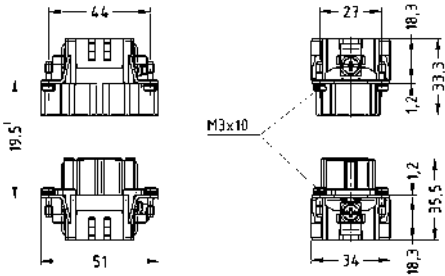
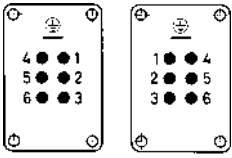
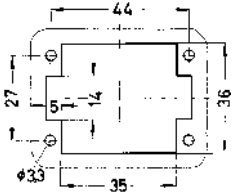
EN 60664-1  
IEC 61984  
DNV GL

Number of contacts

# 6+

16 A 500 V 6 kV 3

Han  
HMC


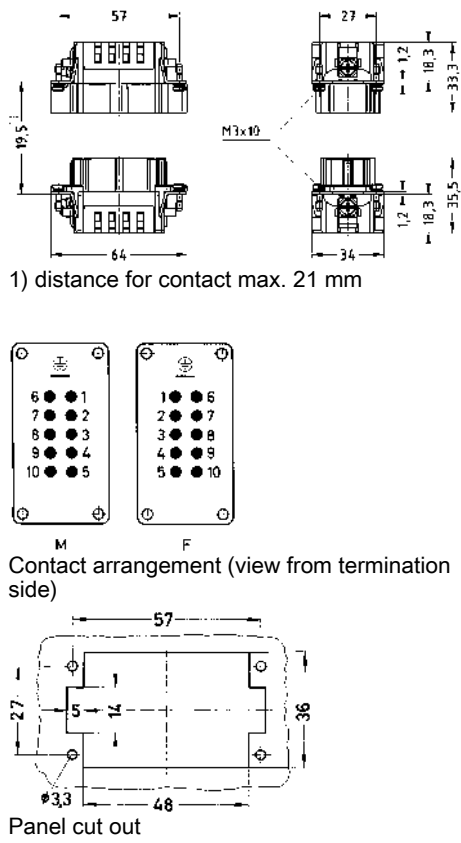
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han E <sup>®</sup> HMC, Crimp termination   <p>Please order crimp contacts separately.</p>	0.14 ... 4	09 33 206 2602	09 33 206 2702	 <p>1) distance for contact max. 21 mm</p>  <p>M F</p> <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out</p>

Number of contacts

**10+**

16 A 500 V 6 kV 3


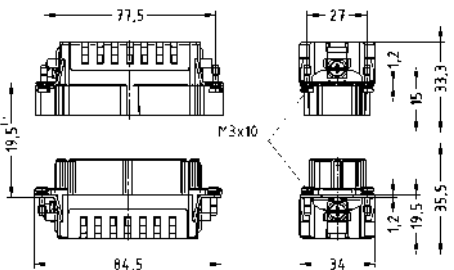
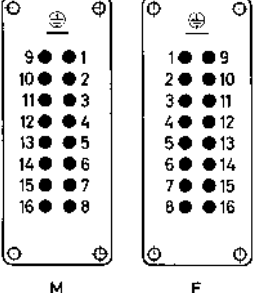
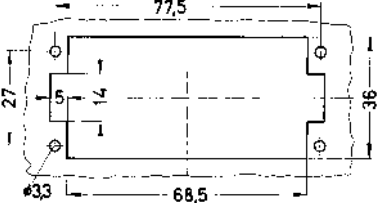
Han  
HMC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han E<sup>®</sup> HMC, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.14 ... 4	09 33 210 2602	09 33 210 2702	 <p>1) distance for contact max. 21 mm</p> <p>Contact arrangement (view from termination side)</p> <p>Panel cut out</p>

Number of contacts

16+

16 A 500 V 6 kV 3

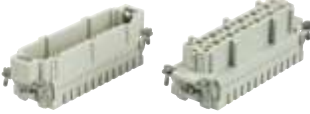
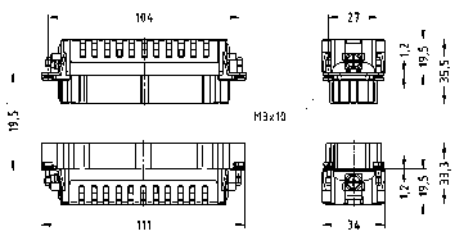
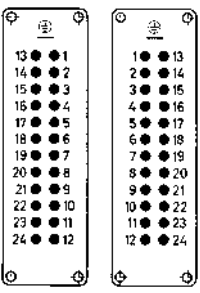
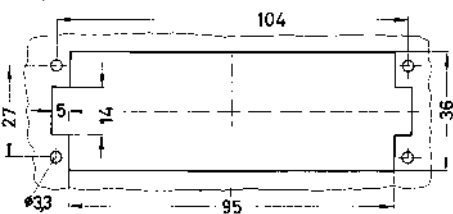
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han E® HMC, Crimp termination  <p>Please order crimp contacts separately.</p>	0.14 ... 4	09 33 216 2602	09 33 216 2702	 <p>1) distance for contact max. 21 mm</p>  <p>M F</p> <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out</p>

Number of contacts

**24+**

16 A 500 V 6 kV 3

Han  
HMC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han E <sup>®</sup> HMC, Crimp termination    Please order crimp contacts separately.	0.14 ... 4	09 33 224 2602	09 33 224 2702	  Contact arrangement (view from termination side)  Panel cut out

## Features

- Han® ES Press: Easy bridging functionality of contacts by means of plug-in jumpers directly on the connector
- Rapid termination technology without tools for a time saving assembly and for optimal processreliability

## Technical characteristics

Number of contacts	6, 10, 16, 24
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 3 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles with other HMC components	$\geq 10000$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

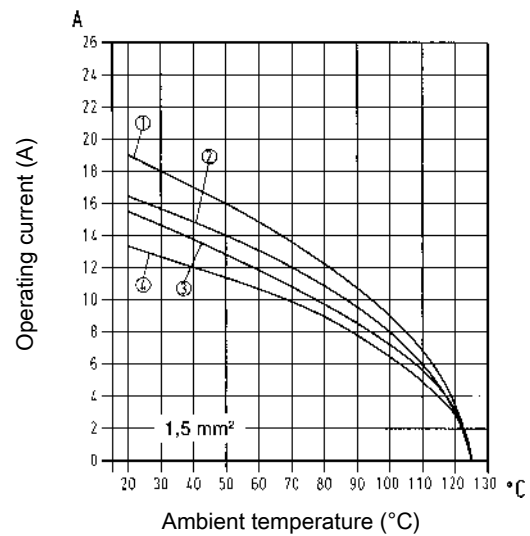
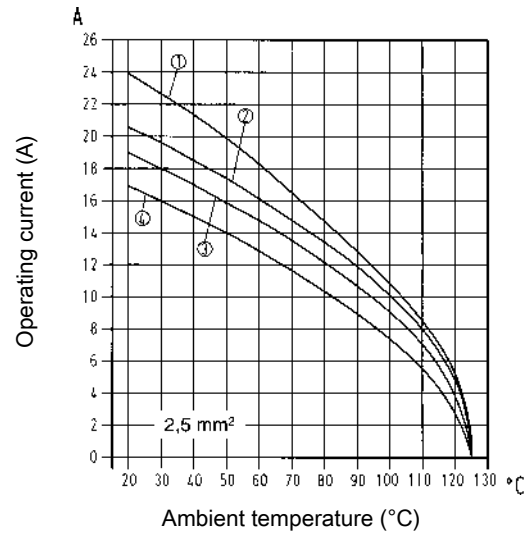
## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2

### Han® ES Press



- ① Han® 6 ES Press
- ② Han® 10 ES Press
- ③ Han® 16 ES Press Han® 32 ES Press
- ④ Han® 24 ES Press Han® 48 ES Press

## Specifications and approvals

EN 60664-1  
IEC 61984  
DNV GL

Number of contacts

**6+**

16 A 500 V 6 kV 3

Han  
HMC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® ES Press HMC, Cage-clamp termination, Contact surface: HMC gold plated</p> <p>for hoods/housings high construction only Blue slide</p>	0.14 ... 2.5	09 33 206 2648	09 33 206 2748	<p>Distance for contact max. 21 mm</p> <p>Contact arrangement (view from termination side)</p> <p>Panel cut out</p>


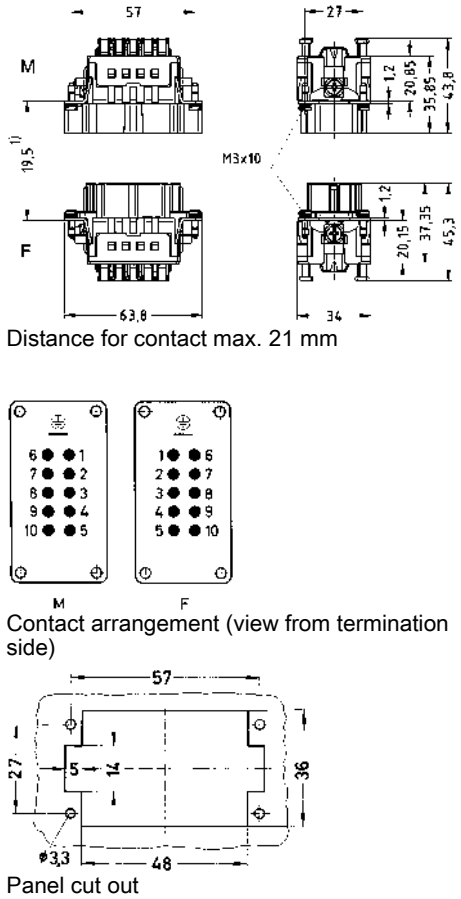


Number of contacts

10+

16 A 500 V 6 kV 3

Han  
HMC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® ES Press HMC, Cage-clamp termination, Contact surface: HMC gold plated</p>  <p>for hoods/housings high construction only Blue slide</p>	0.14 ... 2.5	09 33 210 2648	09 33 210 2748	 <p>Distance for contact max. 21 mm</p> <p>Contact arrangement (view from termination side)</p> <p>Panel cut out</p>

Number of contacts

16+

16 A 500 V 6 kV 3

Han  
HMC


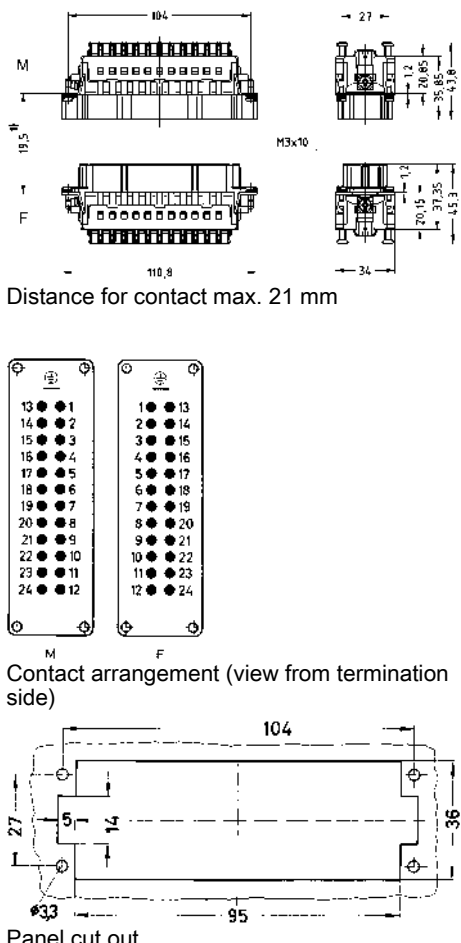
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																
		Male	Female																	
<p>Han® ES Press HMC, Cage-clamp termination, Contact surface: HMC gold plated</p> <p>for hoods/housings high construction only Blue slide</p>	0.14 ... 2.5	09 33 216 2648	09 33 216 2748	<p>Distance for contact max. 21 mm</p> <p> <table border="0"> <tr><td>9 ● 1</td><td>1 ● 9</td></tr> <tr><td>10 ● 2</td><td>2 ● 10</td></tr> <tr><td>11 ● 3</td><td>3 ● 11</td></tr> <tr><td>12 ● 4</td><td>4 ● 12</td></tr> <tr><td>13 ● 5</td><td>5 ● 13</td></tr> <tr><td>14 ● 6</td><td>6 ● 14</td></tr> <tr><td>15 ● 7</td><td>7 ● 15</td></tr> <tr><td>16 ● 8</td><td>8 ● 16</td></tr> </table> </p> <p>M F</p> <p>Contact arrangement (view from termination side)</p> <p>Panel cut out</p>	9 ● 1	1 ● 9	10 ● 2	2 ● 10	11 ● 3	3 ● 11	12 ● 4	4 ● 12	13 ● 5	5 ● 13	14 ● 6	6 ● 14	15 ● 7	7 ● 15	16 ● 8	8 ● 16
9 ● 1	1 ● 9																			
10 ● 2	2 ● 10																			
11 ● 3	3 ● 11																			
12 ● 4	4 ● 12																			
13 ● 5	5 ● 13																			
14 ● 6	6 ● 14																			
15 ● 7	7 ● 15																			
16 ● 8	8 ● 16																			

Number of contacts

24+

16 A 500 V 6 kV 3

Han  
HMC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® ES Press HMC, Cage-clamp termination, Contact surface: HMC gold plated</p>  <p>for hoods/housings high construction only Blue slide</p>	0.14 ... 2.5	09 33 224 2648	09 33 224 2748	 <p>Distance for contact max. 21 mm</p> <p>Contact arrangement (view from termination side)</p> <p>Panel cut out</p>

## Features

- Time saving rapid termination by use of crimping contacts
- Coded insert
- for hoods/housings in the Han® B HMC series
- Han E® HMC contacts available with special HMC gold plating for 10,000 mating cycles

## Technical characteristics

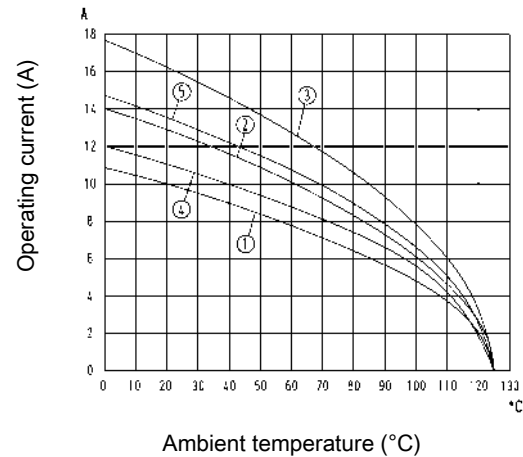
Number of contacts	40, 64
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Insulation resistance	$>10^{10} \Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles with other HMC components	$\geq 10000$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Han® 64 EEE HMC 1.5 mm<sup>2</sup>
- ② Han® 64 EEE HMC 2.5 mm<sup>2</sup>
- ③ Han® 64 EEE HMC 4 mm<sup>2</sup>
- ④ Han® 40 EEE HMC 1.5 mm<sup>2</sup>
- ⑤ Han® 40 EEE HMC 2.5 mm<sup>2</sup>

## Specifications and approvals


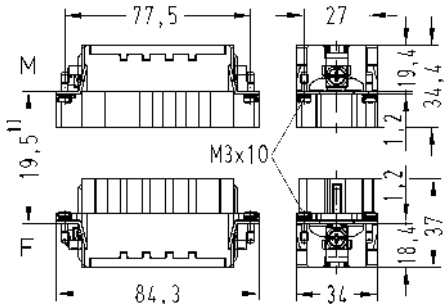
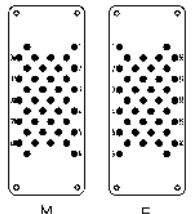
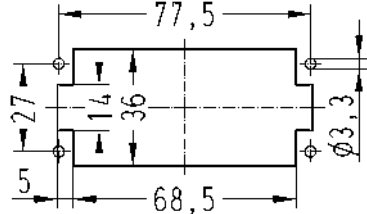
EN 60664-1  
IEC 61984

Number of contacts

40+

16 A 500 V 6 kV 3

Han HMC


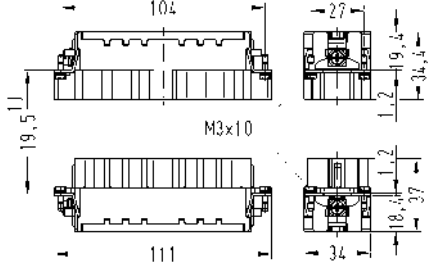
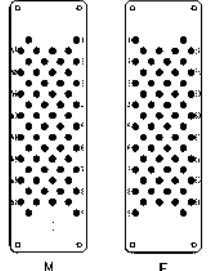
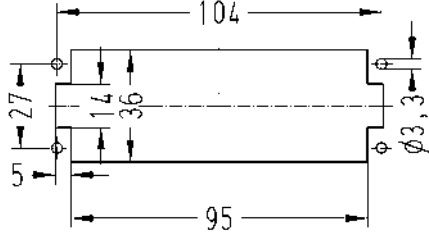
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han® EEE HMC, Crimp termination  Please order crimp contacts separately.	0.14 ... 4	09 32 240 3001	09 32 240 3101	 1) distance for contact max. 21 mm  Contact arrangement (view from termination side)  Panel cut out

Number of contacts

**64+**

16 A 500 V 6 kV 3

Han  
HMC

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han® EEE HMC, Crimp termination  Please order crimp contacts separately.	0.14 ... 4	09 32 264 3001	09 32 264 3101	 <p>1) distance for contact max. 21 mm</p>  <p>Contact arrangement (view from termination side)</p>  <p>Panel cut out</p>

## Technical characteristics

Contact resistance	≤3 mΩ
Mating cycles with other HMC components	≥10000
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
RoHS	compliant with exemption, compliant

## Specifications and approvals

EN 60664-1  
IEC 61984

## Details


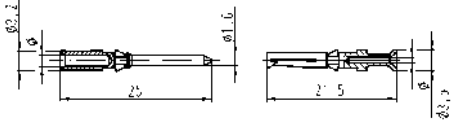

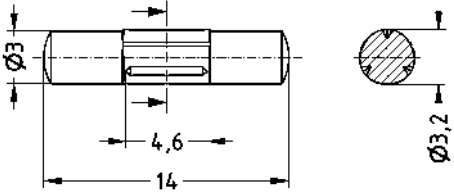
**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

### Coding pin

Use of the coding pin prevents incorrect mating to other connectors of the same type. The male pin should be omitted from the opposing cavity in the male insert.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																					
		Male	Female																						
Han D® HMC, Crimp contact, Contact surface: HMC gold plated  	0.14 ... 0.37	09 15 200 6124	09 15 200 6224	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>0.9 mm</td> <td>8 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>1.1 mm</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1.3 mm</td> <td>8 mm</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1.45 mm</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>1.75 mm</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>2.25 mm</td> <td>6 mm</td> </tr> </tbody> </table>	Conductor cross-section	ø	Stripping length	0.14-0.37 mm <sup>2</sup> AWG 26-22	0.9 mm	8 mm	0.5 mm <sup>2</sup> AWG 20	1.1 mm	8 mm	0.75 mm <sup>2</sup> AWG 18	1.3 mm	8 mm	1 mm <sup>2</sup> AWG 18	1.45 mm	8 mm	1.5 mm <sup>2</sup> AWG 16	1.75 mm	8 mm	2.5 mm <sup>2</sup> AWG 14	2.25 mm	6 mm
	Conductor cross-section	ø	Stripping length																						
	0.14-0.37 mm <sup>2</sup> AWG 26-22	0.9 mm	8 mm																						
	0.5 mm <sup>2</sup> AWG 20	1.1 mm	8 mm																						
	0.75 mm <sup>2</sup> AWG 18	1.3 mm	8 mm																						
	1 mm <sup>2</sup> AWG 18	1.45 mm	8 mm																						
1.5 mm <sup>2</sup> AWG 16	1.75 mm	8 mm																							
2.5 mm <sup>2</sup> AWG 14	2.25 mm	6 mm																							
0.5	09 15 200 6123	09 15 200 6223																							
0.75	09 15 200 6125	09 15 200 6225																							
1	09 15 200 6122	09 15 200 6222																							
1.5	09 15 200 6121	09 15 200 6221																							
2.5	09 15 200 6126	09 15 200 6226																							
Han D®, Han DD®, Han® DDD, Coding pin    Only for crimp termination With loss of one contact			09 33 000 9915																						

## Technical characteristics

Contact resistance	≤1 mΩ
Mating cycles with other HMC components	≥10000
Material (contacts)	Copper alloy
Material (accessories)	Thermoplastic
RoHS	compliant with exemption

## Specifications and approvals

EN 60664-1  
IEC 61984

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

### Coding pin

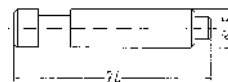
Use of the coding pin prevents incorrect mating to other connectors of the same type. The male pin should be omitted from the opposing cavity in the male insert.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han E <sup>®</sup> HMC, Crimp contact, Contact surface: HMC gold plated	0.14 ... 0.37	09 33 200 6117	09 33 200 6217	
	0.5	09 33 200 6122	09 33 200 6222	
	0.75	09 33 200 6115	09 33 200 6215	
	1	09 33 200 6118	09 33 200 6218	
	1.5	09 33 200 6116	09 33 200 6216	
	2.5	09 33 200 6123	09 33 200 6223	
	4	09 33 200 6119	09 33 200 6221	
	Han E <sup>®</sup> , Han <sup>®</sup> EE, Han <sup>®</sup> EEE, Coding pin			
for crimp inserts only With loss of one contact				

Conductor cross-section	Identification
0.14-0.37 mm <sup>2</sup> AWG 26-22	no groove
0.5 mm <sup>2</sup> AWG 20	no groove
0.75 mm <sup>2</sup> AWG 18	1 groove*
1 mm <sup>2</sup> AWG 18	1 groove
1.5 mm <sup>2</sup> AWG 16	2 groove
2.5 mm <sup>2</sup> AWG 14	3 groove
3 mm <sup>2</sup> AWG 12	wide groove
4 mm <sup>2</sup> AWG 12	no groove

\* on the back crimp collar

Stripping length 7.5 mm





## Technical characteristics

Contact resistance	≤1 mΩ
Mating cycles with other HMC components	≥10000
Material (contacts)	Copper alloy
RoHS	compliant with exemption

## Specifications and approvals


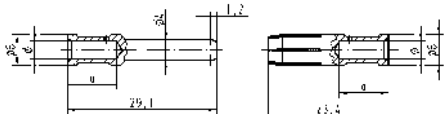
EN 60664-1  
IEC 61984

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.


Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																								
		Male	Female																									
Han <sup>®</sup> C HMC, Crimp contact, Contact surface: HMC gold plated 	1.5	09 32 200 6114	09 32 200 6224	 <table border="1"> <thead> <tr> <th colspan="2">Wire gauge</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> <td>1.75 mm</td> <td>9.5 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> <td>2.25 mm</td> <td>9.5 mm</td> </tr> <tr> <td>4 mm<sup>2</sup></td> <td>AWG 12</td> <td>2.85 mm</td> <td>9.5 mm</td> </tr> <tr> <td>6 mm<sup>2</sup></td> <td>AWG 10</td> <td>3.5 mm</td> <td>9.5 mm</td> </tr> <tr> <td>10 mm<sup>2</sup></td> <td>AWG 8</td> <td>4.3 mm</td> <td>15 mm</td> </tr> </tbody> </table>	Wire gauge		ø	Stripping length	1.5 mm <sup>2</sup>	AWG 16	1.75 mm	9.5 mm	2.5 mm <sup>2</sup>	AWG 14	2.25 mm	9.5 mm	4 mm <sup>2</sup>	AWG 12	2.85 mm	9.5 mm	6 mm <sup>2</sup>	AWG 10	3.5 mm	9.5 mm	10 mm <sup>2</sup>	AWG 8	4.3 mm	15 mm
	Wire gauge		ø		Stripping length																							
	1.5 mm <sup>2</sup>	AWG 16	1.75 mm		9.5 mm																							
	2.5 mm <sup>2</sup>	AWG 14	2.25 mm		9.5 mm																							
	4 mm <sup>2</sup>	AWG 12	2.85 mm		9.5 mm																							
6 mm <sup>2</sup>	AWG 10	3.5 mm	9.5 mm																									
10 mm <sup>2</sup>	AWG 8	4.3 mm	15 mm																									
2.5	09 32 200 6115	09 32 200 6225																										
4	09 32 200 6119	09 32 200 6229																										
6	09 32 200 6118	09 32 200 6228																										
10	09 32 200 6117	09 32 200 6227																										

## Technical characteristics

Contact resistance  $\leq 10 \text{ m}\Omega$   
 Mating cycles with other HMC components  $\geq 10000$

## Technical characteristics

Material (contacts) Copper alloy  
 RoHS compliant with exemption

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)												
		Male	Female													
D-Sub, Crimp contact, Contact surface: HMC gold plated 	0.08 ... 0.21	09 67 000 7570	09 67 000 7470	<table border="1"> <thead> <tr> <th>導体断面積</th> <th>φ</th> <th>ストリップ長さ</th> </tr> </thead> <tbody> <tr> <td>0.08 - 0.21 mm<sup>2</sup></td> <td>AWG 28-24</td> <td>4 mm</td> </tr> <tr> <td>0.13 - 0.33 mm<sup>2</sup></td> <td>AWG 26-22</td> <td>4 mm</td> </tr> <tr> <td>0.33 - 0.52 mm<sup>2</sup></td> <td>AWG 22-20</td> <td>4 mm</td> </tr> </tbody> </table>	導体断面積	φ	ストリップ長さ	0.08 - 0.21 mm <sup>2</sup>	AWG 28-24	4 mm	0.13 - 0.33 mm <sup>2</sup>	AWG 26-22	4 mm	0.33 - 0.52 mm <sup>2</sup>	AWG 22-20	4 mm
	導体断面積	φ	ストリップ長さ													
	0.08 - 0.21 mm <sup>2</sup>	AWG 28-24	4 mm													
0.13 - 0.33 mm <sup>2</sup>	AWG 26-22	4 mm														
0.33 - 0.52 mm <sup>2</sup>	AWG 22-20	4 mm														
0.13 ... 0.33	09 67 000 5570	09 67 000 5470														
0.33 ... 0.52	09 67 000 8570	09 67 000 8470														

## Features

- Metal hoods / housings
- Locking levers: Han-Easy Lock® with special locking reel
- Field of application: for excellent mechanical and electrical protection in demanding environments, for example, in the automobile and mechanical engineering industries also for process and regulation control applications
- Distinguishing feature: hoods/housings colour-coded grey (RAL 7037)

## Technical characteristics


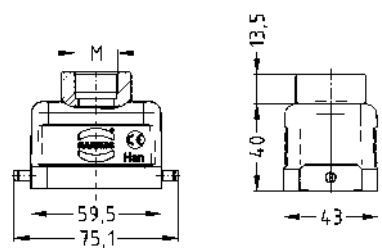
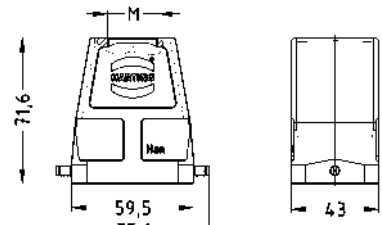
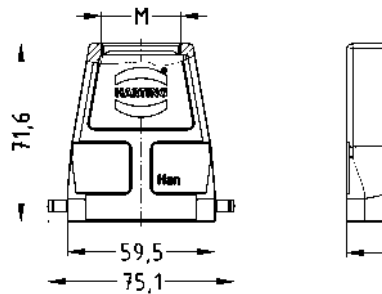
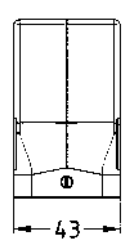
Limiting temperature	-40 ... +125 °C
Mating cycles with other HMC components	≥10000
Degree of protection acc. to IEC 60529	IP65
Type rating acc. to UL 50 / UL 50E	4, 4X, 12
Material (hood/housing)	Aluminium die-cast
Surface (hood/housing)	Powder-coated
Colour (hood/housing)	RAL 7037 (dust grey)
Material (seal)	NBR
Material (locking)	Polycarbonate (PC), Stainless steel
Colour (locking)	RAL 7037 (dust grey)
Material flammability class acc. to UL 94 (locking levers)	V-0
RoHS	compliant


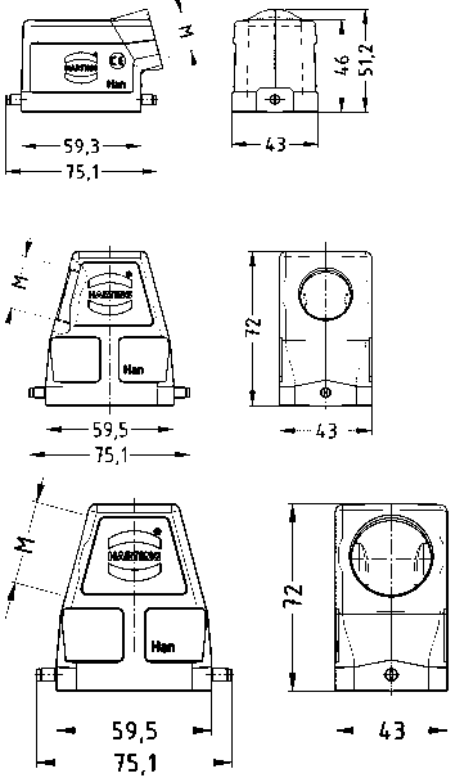

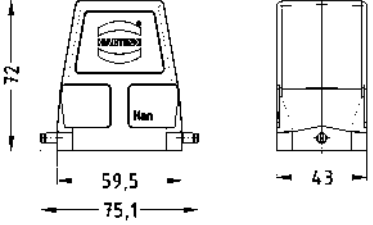

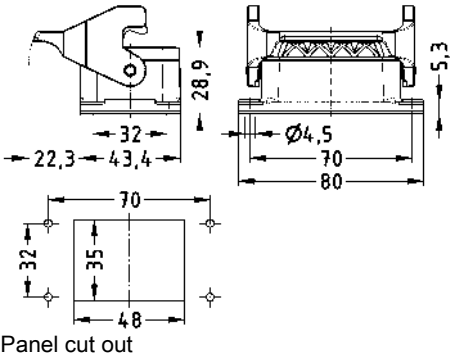
## Specifications and approvals

DNV GL


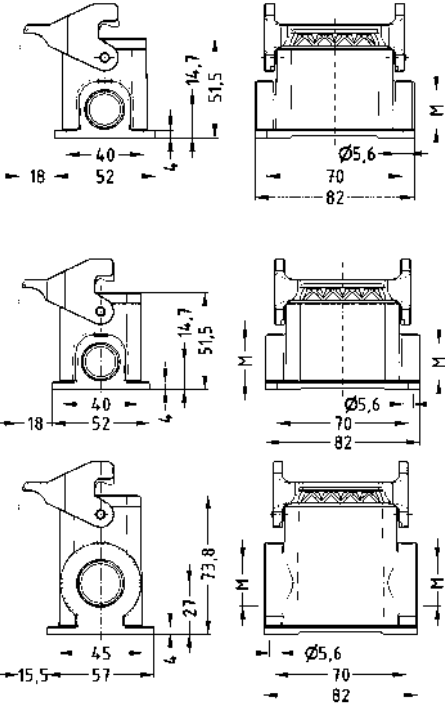

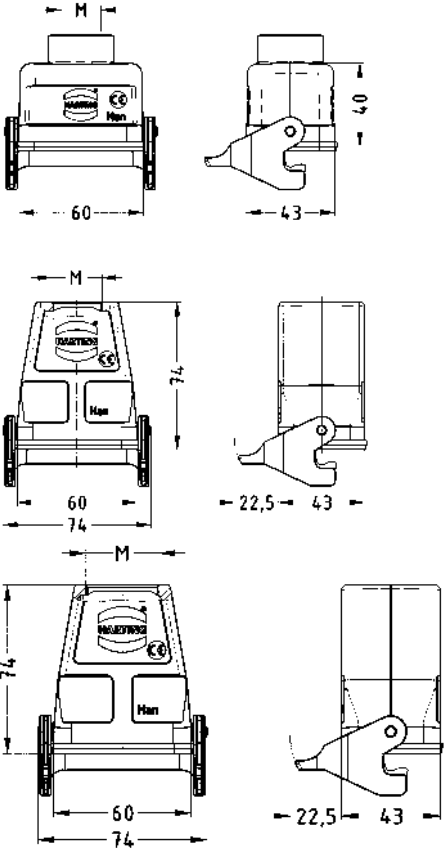
Special hoods and housings for high mating cycles  
Single locking lever

Han  
HMC

Identification	Cable entry	Part number		Drawing (dimensions in mm)	
		Low construction	High construction		
Han® HMC, Hood, Top entry, IP65  	1x M20 1x M25 1x M32	19 30 206 1440	19 30 206 0446 19 30 206 0447		
					


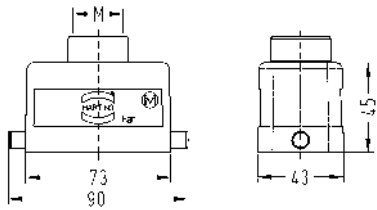
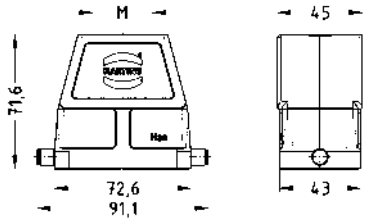

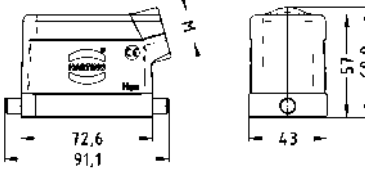
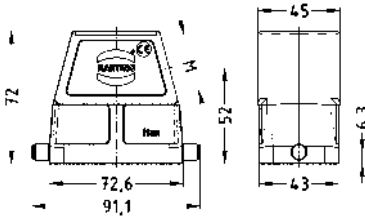

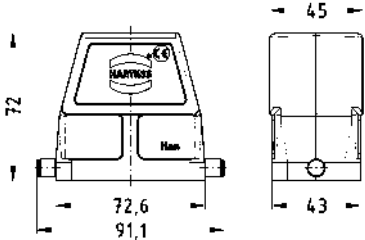
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® HMC, Hood, Side entry, IP65  	1x M20 1x M25 1x M32	19 30 206 1540	19 30 206 0546	
		19 30 206 1541	19 30 206 0547	
Han® HMC, Hood, IP65  			09 30 206 0801	
Han® HMC, Bulkhead mounted housing, Han-Easy Lock®, IP65  		09 30 206 0301		 <p>Panel cut out</p>

Han  
HMC


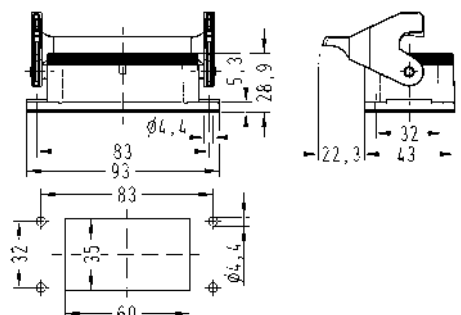

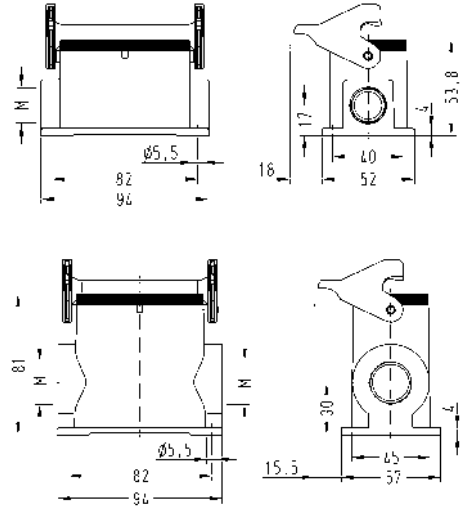

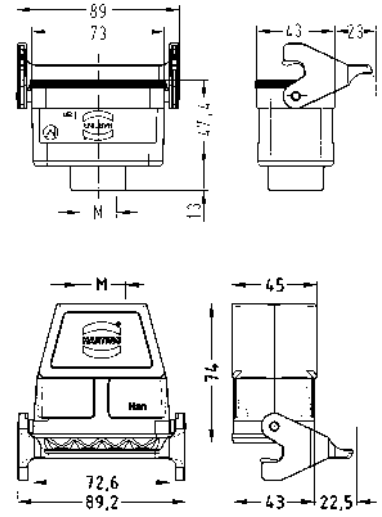
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® HMC, Surface mounted housing, Side entry, Han-Easy Lock®, IP65 	1x M20 2x M20 2x M25 2x M32	19 30 206 1290	19 30 206 1250  19 30 206 0291 19 30 206 0292	
Han® HMC, Cable to cable housing, Top entry, Han-Easy Lock®, IP65 	1x M20 1x M25 1x M32	19 30 206 1750	19 30 206 0756 19 30 206 0757	

Special hoods and housings for high mating cycles  
Single locking lever

Han  
HMC

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® HMC, Hood, Top entry, IP65  	1x M20 1x M25 1x M32	19 30 210 1440 19 30 210 1441	19 30 210 0447	 
Han® HMC, Hood, Side entry, IP65  	1x M20 1x M25 1x M32	19 30 210 1540 19 30 210 1541	19 30 210 0547	 
Han® HMC, Hood, Without cable entry, IP65  			09 30 210 0803	


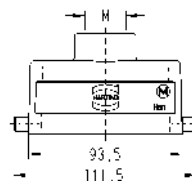
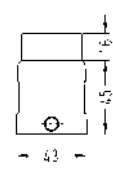

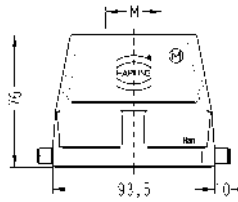
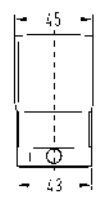

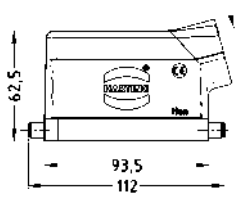
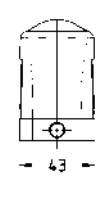
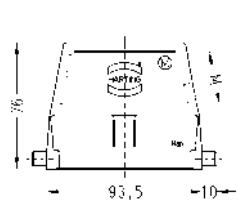
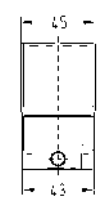
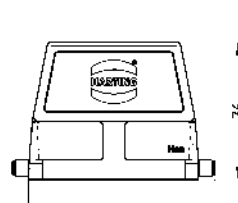
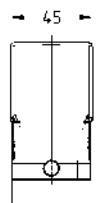
Han  
HMC

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® HMC, Bulkhead mounted housing, Han-Easy Lock®, IP65  		09 30 210 0305		 <p>Panel cut out</p>
Han® HMC, Surface mounted housing, Side entry, Han-Easy Lock®, IP65  	1x M20 2x M20 2x M25 2x M32	19 30 210 1250 19 30 210 1290	19 30 210 0291 19 30 210 0292	
Han® HMC, Cable to cable housing, Top entry, Han-Easy Lock®, IP65  	1x M20 1x M25	19 30 210 1750	19 30 210 0756	


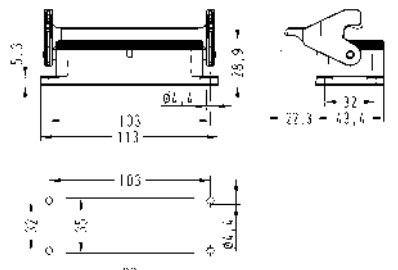

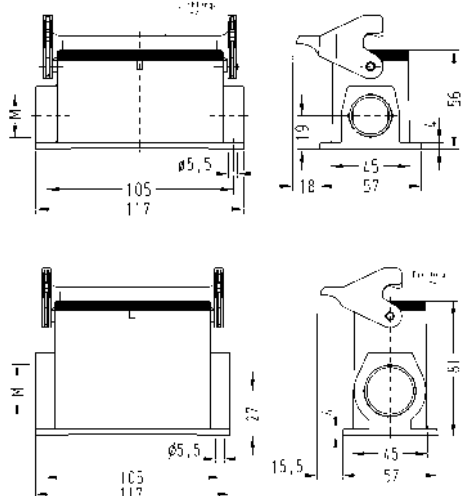

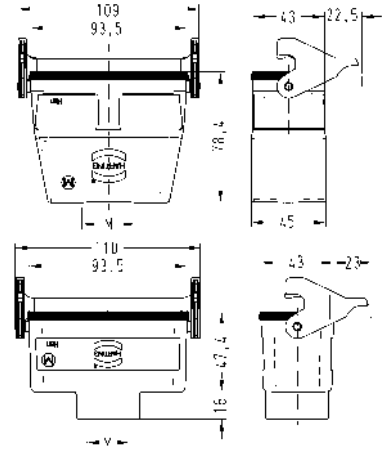


Special hoods and housings for high mating cycles  
Single locking lever

Han  
HMC

Identification	Cable entry	Part number		Drawing (dimensions in mm)	
		Low construction	High construction		
Han® HMC, Hood, Top entry, IP65  	1x M25 1x M32 1x M40	19 30 216 1441	19 30 216 0447 19 30 216 0448		
		19 30 216 1442			
Han® HMC, Hood, Side entry, IP65  	1x M25 1x M32	19 30 216 1541	19 30 216 0547		
		19 30 216 1542			
Han® HMC, Hood, Without cable entry, IP65  			09 30 216 0803		
					
					


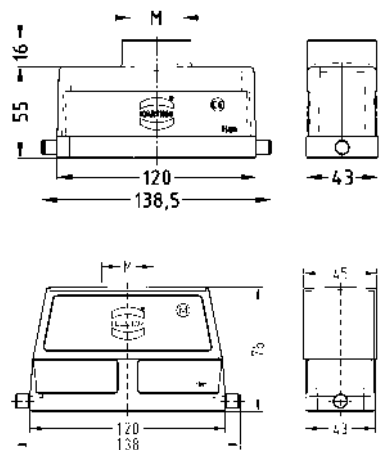

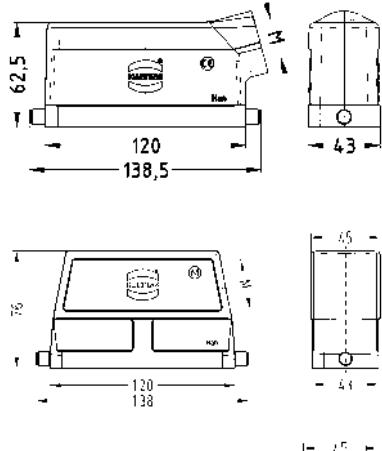

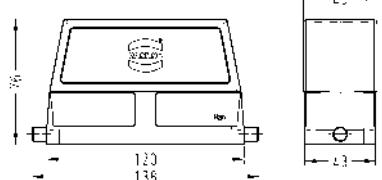
Han  
HMC

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® HMC, Bulkhead mounted housing, Han-Easy Lock®, IP65  		09 30 216 0307		 <p>Panel cut out</p>
Han® HMC, Surface mounted housing, Side entry, Han-Easy Lock®, IP65  	1x M25 1x M32 2x M25 2x M32	19 30 216 1251 19 30 216 1291	19 30 216 0252 19 30 216 0291 19 30 216 0292	
Han® HMC, Cable to cable housing, Top entry, Han-Easy Lock®, IP65  	1x M25 1x M32	19 30 216 1751 19 30 216 1752	19 30 216 0757	

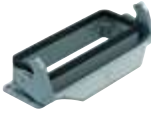
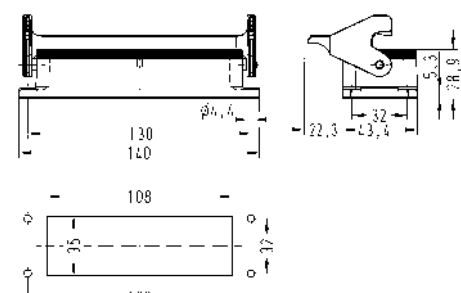

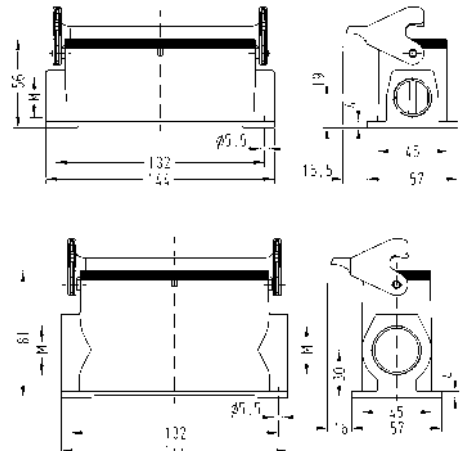

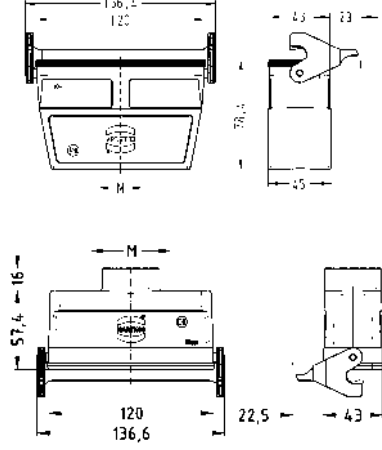
Han  
16  
·  
70

Special hoods and housings for high mating cycles  
Single locking lever

Han  
HMC

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construc- tion	High construc- tion	
Han® HMC, Hood, Top entry, IP65  	1x M32 1x M40	19 30 224 1442	19 30 224 0447 19 30 224 0448	
Han® HMC, Hood, Side entry, IP65  	1x M25 1x M32 1x M40	19 30 224 1541 19 30 224 1542	19 30 224 0547 19 30 224 0548	
Han® HMC, Hood, Without cable entry, IP65  			09 30 224 0803	

Han  
HMC

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® HMC, Bulkhead mounted housing, Han-Easy Lock®, IP65  		09 30 224 0307		 <p>Panel cut out</p>
Han® HMC, Surface mounted housing, Side entry, Han-Easy Lock®, IP65  	1x M25 2x M25 2x M32	19 30 224 1251 19 30 224 1291	19 30 224 0292	
Han® HMC, Cable to cable housing, Top entry, Han-Easy Lock®, IP65  	1x M32	19 30 224 1752	19 30 224 0757	

Han  
16  
·  
72


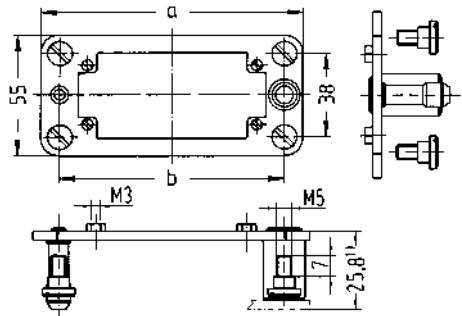
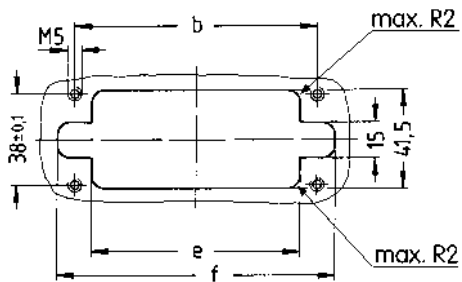


## Features

- Suitable for all inserts of the series Han E<sup>®</sup>, Han E<sup>®</sup> HMC, Han EE<sup>®</sup>, Han EE<sup>®</sup> HMC, Han EEE<sup>®</sup>, Han EEE<sup>®</sup> HMC, Han<sup>®</sup> ES, Han D<sup>®</sup> (size B), Han D<sup>®</sup> HMC, Han DD<sup>®</sup>, Han DD<sup>®</sup> HMC, Han-Com<sup>®</sup>, Han<sup>®</sup> HsB, Han-Modular<sup>®</sup>
- Due to the floating system of the docking frame the PE connection of the mounting base has to be installed separately.
- Inserts are protected against mechanical damage

## Technical characteristics

Mating cycles	≥500
Mating cycles with other HMC components	≥10000
Material (accessories)	Stainless steel
RoHS	compliant with exemption

Identification	Size	Part number	Drawing (dimensions in mm)
Docking frame, Pack contents: 1 frame, 4 cheese head shoulder screws (Steel, zinc plated) to fix the docking frame  Pull-in-range x-axis: ± 1.5 mm Pull-in-range y-axis: ± 1.5 mm	06 B 10 B 16 B 24 B	09 30 006 1704 09 30 010 1704 09 30 016 1704 09 30 024 1704	 Distance for electrical and FO contacts max. 27 mm; for Han-Modular <sup>®</sup> series max. 26.5 mm 6 B: a=86; b=69 10 B: a=99; b=82 16 B: a= 119.5 ; b= 102.5 24 B: a=146; b=129  6 B: b= 69; e= 54.5; f= 84 10 B: b= 82; e= 67.5; f= 97 16 B: b= 102.5; e= 88; f= 117.5 24 B: b= 129; e= 114.5; f= 144

## Technical characteristics

Limiting temperature -40 ... +125 °C  
 Degree of protection acc. to IEC 60529 IP20  
 Material (accessories) Thermoplastic  
 Material flammability class acc. to UL 94 V-0

## Specifications and approvals

EN 45545-2 R22: HL1, HL2, HL3  
 EN 45545-2 R23: HL1, HL2, HL3

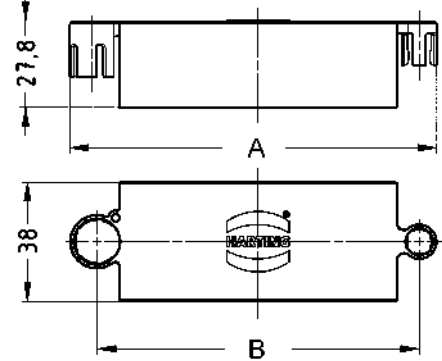
Identification	Size	Part number	Drawing (dimensions in mm)
----------------	------	-------------	-------------------------------

Protection cover,  
for Han® docking frame,  
IP20



06 B  
10 B  
16 B  
24 B

09 30 006 5418  
09 30 010 5418  
09 30 016 5418  
09 30 024 5418



	A	B
6 B	83.3 mm	69 mm
10 B	96.3 mm	82 mm
16 B	116.8 mm	102.5 mm
24 B	143.3 mm	129 mm

## Features

- Blind mating connector system for drawer systems
- Highest flexibility due to a product range of over 100 connector modules
- Direct panel mounting without hoods and housings
- Leading centring system compensates for tolerances of +/- 2 mm
- Very robust mechanical characteristics

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Mating cycles with other HMC components	≥10000
Lock-in range	±4 mm
Material (frames)	Zinc die-cast
RoHS	compliant


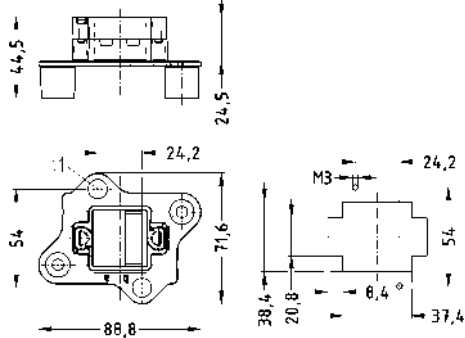
## Specifications and approvals

EN 60664-1  
IEC 61984


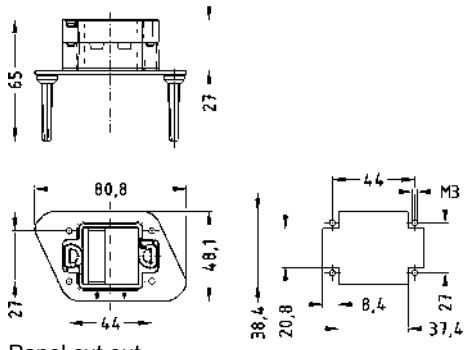

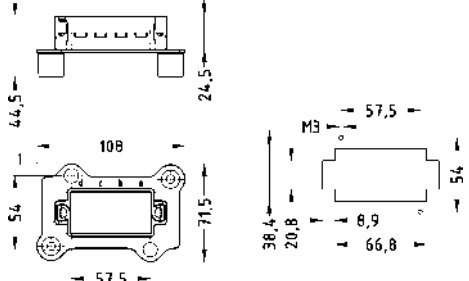

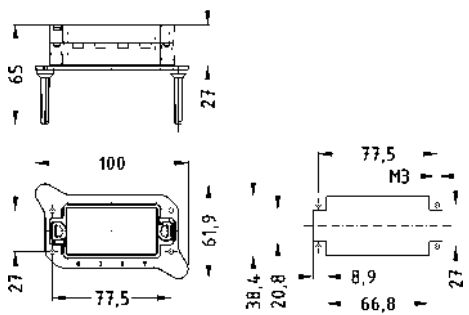

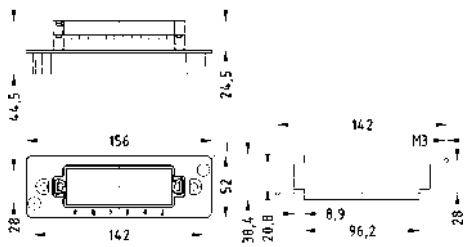
## Details

The docking frame has no PE contact as it is not required in many drawer system applications.


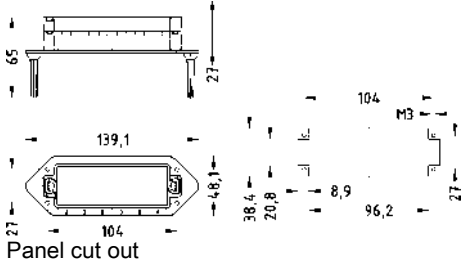
Suitable for Han-Modular® modules except for Han® Megabit module, Han® RJ45 module, optical and pneumatic modules.

Identification	Part number	Drawing (dimensions in mm)
<p>Han-Modular®, Docking frame, Float mount, for 2 modules, a ... f</p> 	09 14 006 1706	 <p>Panel cut out ① Floating tolerance ± 2 mm</p>

Han  
HMC

Identification	Part number	Drawing (dimensions in mm)
<p>Han-Modular®, Docking frame, Fixed, for 2 modules, A ... F</p> 	<p>09 14 006 1716</p>	 <p>Panel cut out</p>
<p>Han-Modular®, Docking frame, Float mount, for 4 modules, a ... f</p> 	<p>09 14 016 1706</p>	 <p>Panel cut out ① Floating tolerance <math>\pm 2</math> mm</p>
<p>Han-Modular®, Docking frame, Fixed, for 4 modules, A ... F</p> 	<p>09 14 016 1716</p>	 <p>Panel cut out</p>
<p>Han-Modular®, Docking frame, Float mount, for 6 modules, a ... f</p> 	<p>09 14 024 1706</p>	 <p>Panel cut out ① Floating tolerance <math>\pm 2</math> mm</p>



Identification	Part number	Drawing (dimensions in mm)
<p>Han-Modular®, Docking frame, Fixed, for 6 modules, A ... F</p> 	<p>09 14 024 1716</p>	 <p>Panel cut out</p>

## Contents

## Page

Han® Q 5/0 High Temp .....	<b>Han 17.3</b>
Han® High Temp hoods/housings 3 A.....	<b>Han 17.4</b>
Han® High Temp inserts .....	<b>Han 17.6</b>
Han® High Temp contacts .....	<b>Han 17.11</b>
Han® High Temp hoods/housings.....	<b>Han 17.12</b>

High  
Temp

## Description

High  
Temp

We used high-quality materials with wide temperature ranges to produce connectors that are uniquely suited for a wide variety of applications.

These connectors can withstand temperatures up to 200 °C – so they can be used directly in machines and facilities that would otherwise require cumbersome and complex constructions.

For our users, this delivers direct advantages:

- The electro-mechanical design process is optimized.  
Machine parts which are exposed to high temperatures can be designed modularly.
- The work process is optimized  
since lower wiring complexity results in reduced maintenance costs.
- The after-sales phase is optimized  
because this more service-friendly approach results in less outages and down times.

## Design overview

The basic structure of the Han® High Temp connector consists of a bulkhead mounted housing and a cable-side hood.

Hoods and housings:

The aluminium die-cast hoods and housings feature a highly compressed surface with excellent non-stick properties. It also has a special non-stick coating on the bulkhead-side seal which allows easy handling without significant sticking.

Inserts:

The Han® High Temp series features very rugged contact inserts, which are really the heart of any connector. The LCP injection-moulded insert delivers outstanding temperature resistance coupled with excellent mechanical stability.

Contacts:

Our new temperature resistant contacts, for either screw or crimp terminations, ensure reliable connections with minimal contact resistance even at extreme temperatures.



Han® High Temp connectors  
remain robust and reliable for their entire lifespan!

Number of contacts

# 5+

16 A 230/400 V 4 kV 3

High Temp

### Technical characteristics

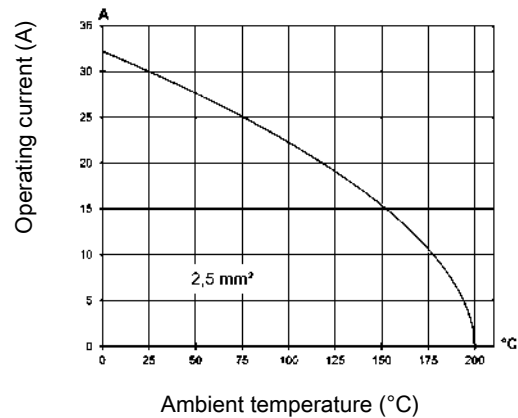
Number of contacts	5
Rated current	16 A
Rated voltage conductor-earth	230 V
Rated voltage conductor-conductor	400 V
Rated impulse voltage	4 kV
Pollution degree	3
Insulation resistance	>10 <sup>10</sup> Ω
Limiting temperature	-40 ... +200 °C With Han <sup>®</sup> High Temp components
Mating cycles	≥500
Material (insert)	Liquid crystal polymer (LCP)
Colour (insert)	Black
Material flammability class acc. to UL 94	V-0

### Derating

#### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



### Specifications and approvals

EN 60664-1  
IEC 61984

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han <sup>®</sup> Q High Temp, 5/0, Crimp termination <p>Please order crimp contacts separately. Coding pins on request</p>	0.14 ... 2.5	09 12 805 3004	09 12 805 3104	



Hoods/housings for harsh environments  
Single locking lever

High  
Temp

## Technical characteristics

Limiting temperature	-40 ... +125 °C, -40 ... +200 °C With Han® High Temp components
Degree of protection acc. to IEC 60529	IP65, IP67
Type rating acc. to UL 50 / UL 50E	4, 4X, 12
Material (hood/housing)	Stainless steel
Surface (hood/housing)	Uncoated
Colour (hood/housing)	Unpainted
Material (locking)	Stainless steel

## Technical characteristics

RoHS compliant

## Specifications and approvals

UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
DNV GL




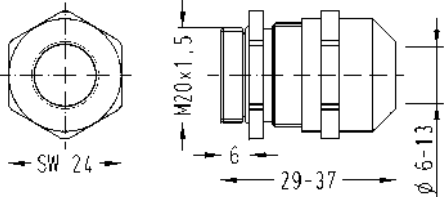
Identification	Cable entry	Part number	Drawing (dimensions in mm)
Han-INOX®, Han® High Temp, Hood, Top entry, IP65, IP67  Pack contents: With seal screw	1x M20	19 44 003 1440	
Han-INOX®, Han® High Temp, Bulkhead mounted housing, Straight, IP65, IP67  Pack contents: With seal screw		19 44 003 0301	

## Technical characteristics

Material (seal) FPM  
 Colour (seal) Light grey

## Technical characteristics

Material (cable glands) Stainless steel  
 Material (clamping ring) Polyamide (PA) compliant  
 RoHS

Identification	Size	Clamping range (mm)	Size	Part number	Drawing (dimensions in mm)
Han A®, Flange gasket, FPM 			3 A	09 37 000 9912	
Han-INOX®, Cable gland 	M20	6 ... 13		19 44 000 5082	

## Features

- for extreme temperatures up to 200 °C
- All piece parts (contacts, insert material, hoods and housings, seals and grounding elements) are designed in a temperature resistant way

## Technical characteristics

Number of contacts	6, 10, 16, 24
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤1 mΩ
Limiting temperature	-40 ... +200 °C With Han® High Temp components
Mating cycles	≥500
Material (insert)	Liquid crystal polymer (LCP)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

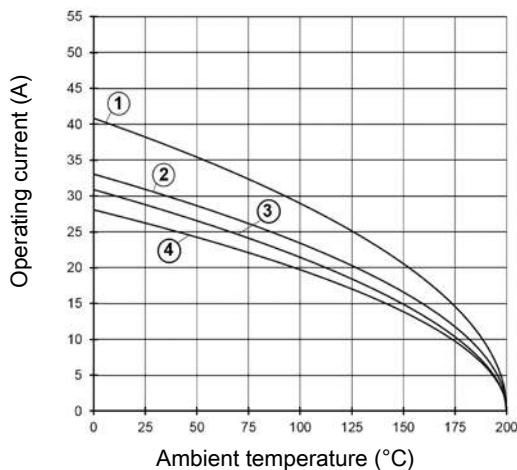
## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2

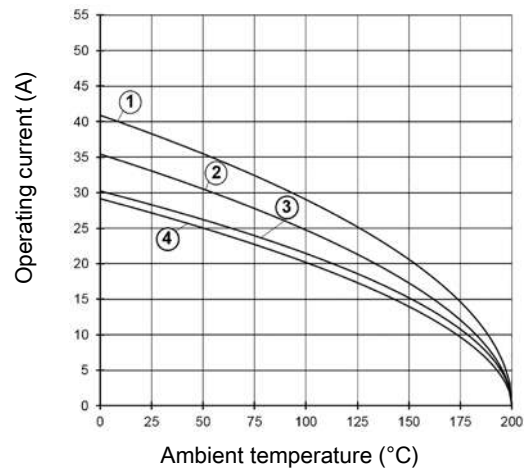
#### Crimp termination



- ① Han® 6 E High Temp 2,5 mm<sup>2</sup>
- ② Han® 10 E High Temp 2,5 mm<sup>2</sup>
- ③ Han® 16 E High Temp 2,5 mm<sup>2</sup>
- ④ Han® 24 E High Temp 2,5 mm<sup>2</sup>

## Derating

### Screw termination



- ① Han® 6 E High Temp 2.5 mm<sup>2</sup>
- ② Han® 10 E High Temp 2.5 mm<sup>2</sup>
- ③ Han® 16 E High Temp 2.5 mm<sup>2</sup>
- ④ Han® 24 E High Temp 2.5 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
DNV GL

## Details

Han® High Temp crimp inserts are only for use with the special Han® High Temp crimp contacts.

Tightening torque 0.5 Nm

Tightening torque PE screw 1.2 Nm

Number of contacts

# 6+

16 A 500 V 6 kV 3

High Temp

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han E® High Temp, Crimp termination</p> <p>Please order crimp contacts separately.</p>	0.5 ... 2.5	09 33 806 2604	09 33 806 2704	
<p>Han E® High Temp, Screw termination, With wire protection, Contact surface: Silver plated</p>	0.75 ... 2.5	09 33 806 2603	09 33 806 2703	


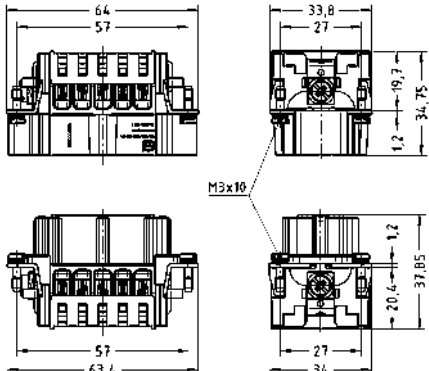
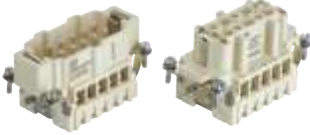
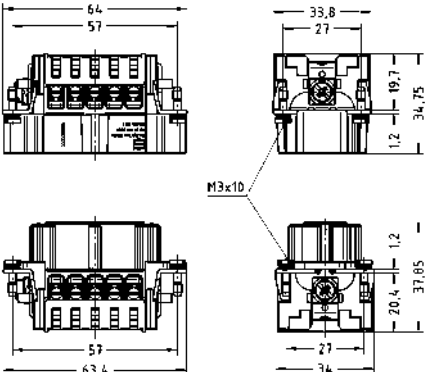


Number of contacts

# 10+

16 A 500 V 6 kV 3

High Temp

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han E® High Temp, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.5 ... 2.5	09 33 810 2604	09 33 810 2704	
<p>Han E® High Temp, Screw termination, With wire protection, Contact surface: Silver plated</p> 	0.75 ... 2.5	09 33 810 2603	09 33 810 2703	

Number of contacts

# 16+

16 A 500 V 6 kV 3

High Temp



Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)	
		Male	Female		
<p>Han E® High Temp, Crimp termination</p> <p>Please order crimp contacts separately.</p>	0.5 ... 2.5	09 33 816 2604	09 33 816 2704		
<p>Han E® High Temp, Screw termination, With wire protection, Contact surface: Silver plated</p>	0.75 ... 2.5	09 33 816 2603	09 33 816 2703		

Number of contacts

# 24+

16 A 500 V 6 kV 3

High  
Temp

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han E® High Temp, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.5 ... 2.5	09 33 824 2604	09 33 824 2704	
<p>Han E® High Temp, Screw termination, With wire protection, Contact surface: Silver plated</p> 	0.75 ... 2.5	09 33 824 2603	09 33 824 2703	

## Technical characteristics

Contact resistance	≤1 mΩ
Material (contacts)	Copper alloy
RoHS	compliant with exemption

## Specifications and approvals


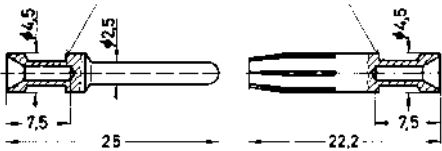
EN 60664-1  
IEC 61984

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																		
		Male	Female																			
Han E® High Temp, Crimp contact, Contact surface: Silver plated 	0.5	09 33 800 6121	09 33 800 6220	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>no groove</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>no groove</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>1 groove*</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>1 groove</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>2 groove</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>3 groove</td> </tr> <tr> <td>3 mm<sup>2</sup> AWG 12</td> <td>wide groove</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>no groove</td> </tr> </tbody> </table> <p>* on the back crimp collar</p> <p>Stripping length 7.5 mm</p>	Conductor cross-section	Identification	0.14-0.37 mm <sup>2</sup> AWG 26-22	no groove	0.5 mm <sup>2</sup> AWG 20	no groove	0.75 mm <sup>2</sup> AWG 18	1 groove*	1 mm <sup>2</sup> AWG 18	1 groove	1.5 mm <sup>2</sup> AWG 16	2 groove	2.5 mm <sup>2</sup> AWG 14	3 groove	3 mm <sup>2</sup> AWG 12	wide groove	4 mm <sup>2</sup> AWG 12	no groove
	Conductor cross-section	Identification																				
	0.14-0.37 mm <sup>2</sup> AWG 26-22	no groove																				
	0.5 mm <sup>2</sup> AWG 20	no groove																				
	0.75 mm <sup>2</sup> AWG 18	1 groove*																				
	1 mm <sup>2</sup> AWG 18	1 groove																				
1.5 mm <sup>2</sup> AWG 16	2 groove																					
2.5 mm <sup>2</sup> AWG 14	3 groove																					
3 mm <sup>2</sup> AWG 12	wide groove																					
4 mm <sup>2</sup> AWG 12	no groove																					
0.75	09 33 800 6114	09 33 800 6214																				
1	09 33 800 6105	09 33 800 6205																				
1.5	09 33 800 6104	09 33 800 6204																				
2.5	09 33 800 6102	09 33 800 6202																				

## Features

- for extreme temperatures up to 200 °C
- All piece parts (contacts, insert material, hoods and housings, seals and grounding elements) are designed in a temperature resistant way
- Hoods/Housings, corrosion resistant metal

## Technical characteristics

Limiting temperature	-40 ... +125 °C, -40 ... +200 °C With Han® High Temp components
Degree of protection acc. to IEC 60529	IP65
Type rating acc. to UL 50 / UL 50E	4, 12
Material (hood/housing)	Aluminium die-cast
Surface (hood/housing)	Uncoated
Colour (hood/housing)	Unpainted
Material (seal)	FPM
Colour (seal)	Red
Material (locking)	Stainless steel
RoHS	compliant, compliant with exemption


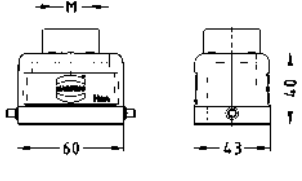

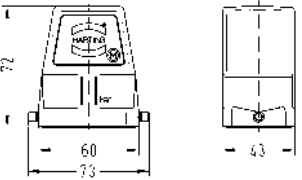

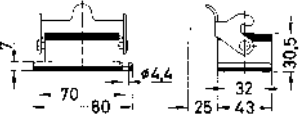

## Specifications and approvals

UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL


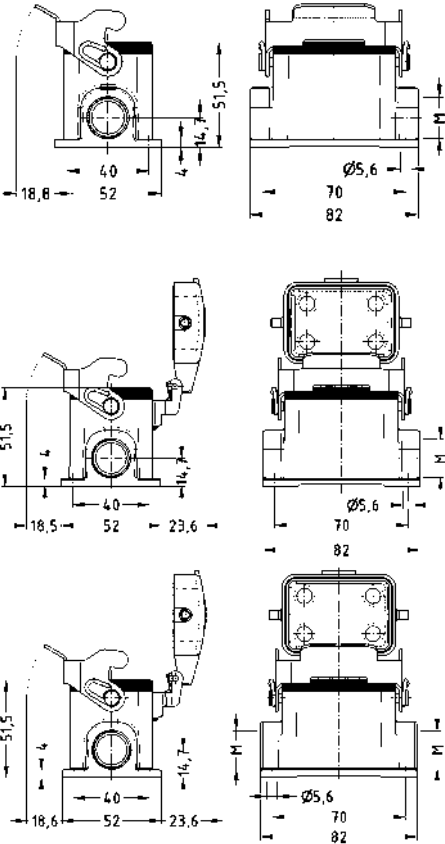


Single locking lever

High Temp


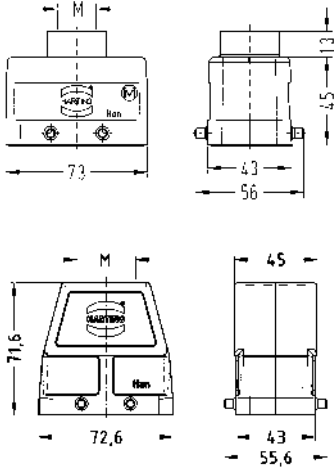

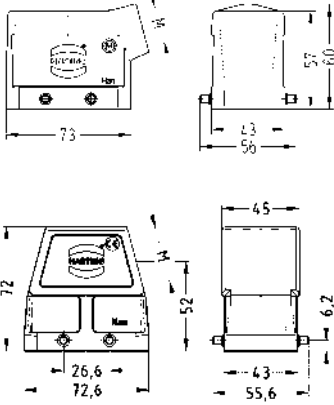

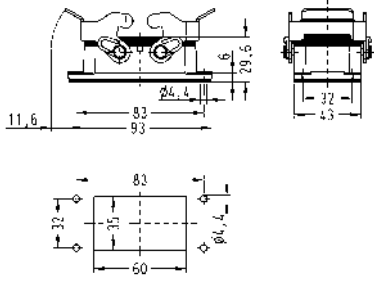
Identification	Cable entry	Part number		Drawing (dimensions in mm)	
		Low construction	High construction		
Han® EMC/B, Han® High Temp, Hood, Top entry, IP65 	1x M20 1x M25 1x M32	19 62 806 1440	19 62 806 0446 19 62 806 0447		
Han® EMC/B, Han® High Temp, Hood, Side entry, IP65 	1x M20 1x M25 1x M32	19 62 806 1540 19 62 806 1541	19 62 806 0546 19 62 806 0547		
Han® High Temp, Bulkhead mounted housing, IP65 		09 62 806 0391			 <p>Panel cut out</p>

High Temp

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® High Temp, Surface mounted housing, Side entry, IP65  	1x M20 1x M20 2x M20	19 62 806 1291 19 62 806 2255 19 62 806 2295		

Double locking lever


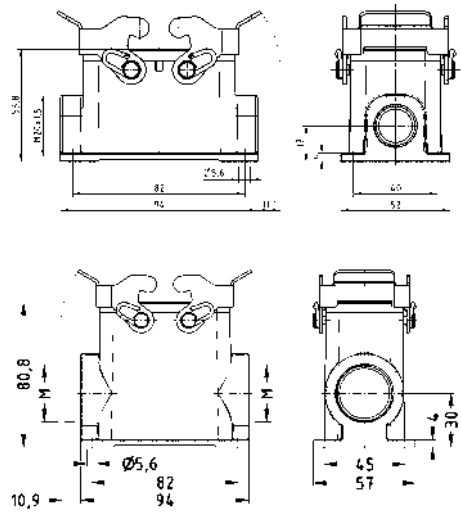
High Temp

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® EMC/B, Han® High Temp, Hood, Top entry, IP65 	1x M20 1x M25 1x M32 1x M40	19 62 810 1420 19 62 810 1421	19 62 810 0426 19 62 810 0427 19 62 810 0428	
Han® EMC/B, Han® High Temp, Hood, Side entry, IP65 	1x M20 1x M25 1x M32	19 62 810 1520	19 62 810 0526 19 62 810 0527	
Han® High Temp, Bulkhead mounted housing, IP65 		09 62 810 0391		 <p>Panel cut out</p>




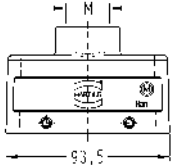
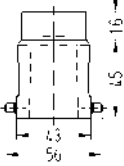

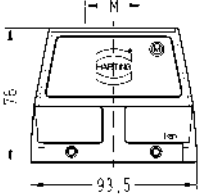
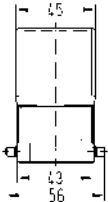

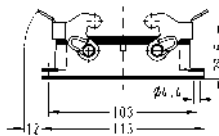
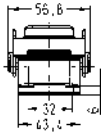
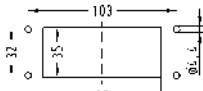


High Temp

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® High Temp, Surface mounted housing, Side entry, IP65 	1x M20 2x M32	19 62 810 1235	19 62 810 0292	

Double locking lever

High Temp

Identification	Cable entry	Part number		Drawing (dimensions in mm)	
		Low construction	High construction		
Han® EMC/B, Han® High Temp, Hood, Top entry, IP65  	1x M25 1x M32 1x M40	19 62 816 1421	19 62 816 0427 19 62 816 0428		
Han® EMC/B, Han® High Temp, Hood, Side entry, IP65  	1x M25 1x M32 1x M40	19 62 816 1521	19 62 816 0527 19 62 816 0528		
Han® High Temp, Bulkhead mounted housing, IP65  		09 62 816 0391			
				 <p>Panel cut out</p>	


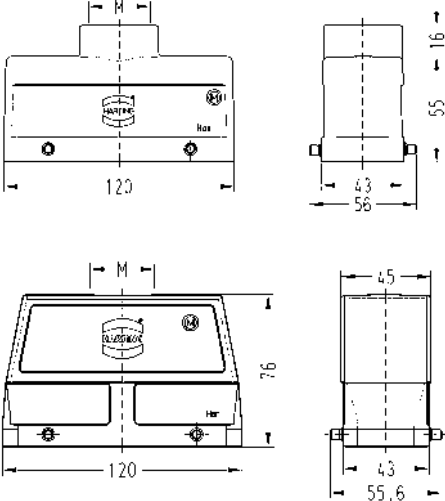

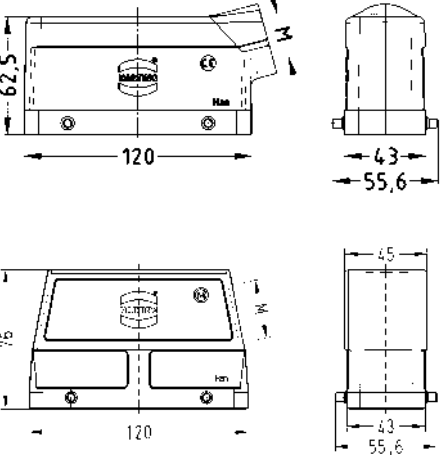

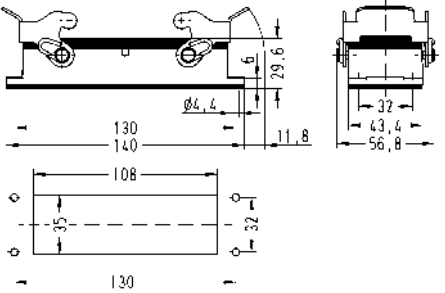


High Temp

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® High Temp, Surface mounted housing, Side entry, IP65	2x M32		19 62 816 0292	


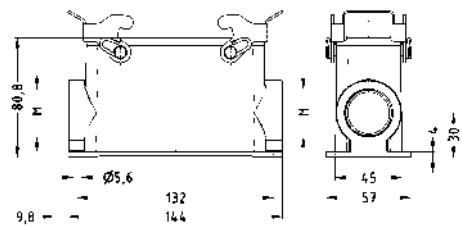
Double locking lever

High Temp

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® EMC/B, Han® High Temp, Hood, Top entry, IP65 	1x M32 1x M40 1x M50	19 62 824 1422	19 62 824 0427 19 62 824 0428 19 62 824 0429	
Han® EMC/B, Han® High Temp, Hood, Side entry, IP65 	1x M25 1x M32 1x M40	19 62 824 1521	19 62 824 0527 19 62 824 0528	
Han® High Temp, Bulkhead mounted housing, IP65 		09 62 824 0391		 Panel cut out



High Temp

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® High Temp, Surface mounted housing, Side entry, IP65 	2x M32		19 62 824 0292	

Contents	Page
Han-Brid® Cu .....	<b>Han 19.6</b>
Han-Brid® FO .....	<b>Han 19.10</b>
Han-Brid® Quintax 3 A .....	<b>Han 19.13</b>
Han-Brid® Quintax 3 A with coaxial contacts .....	<b>Han 19.15</b>
Han-Brid® Quintax 3 A with Han-Quintax® contacts .....	<b>Han 19.18</b>
Han-Brid® Quintax 3 A with Han-Quintax® HD contacts .....	<b>Han 19.20</b>
Han-Brid® RJ45 C .....	<b>Han 19.21</b>
Han-Brid® USB .....	<b>Han 19.24</b>
Han-Brid® FireWire .....	<b>Han 19.25</b>
Han® 4 A SC .....	<b>Han 19.26</b>
Hoods/Housings, metal Han® 3 A .....	<b>Han 19.29</b>
Hoods/Housings, thermoplastic Han® 3 A .....	<b>Han 19.31</b>
Han® M hoods/housings .....	<b>Han 19.33</b>
Han® EMC hoods/housings .....	<b>Han 19.34</b>
Han-INOX® hoods/housings .....	<b>Han 19.35</b>
Han® HPR hoods/housings .....	<b>Han 19.37</b>

Data interfaces

Han-Brid

Han-Brid® F.O.

- Is suitable for all HP Versatile Link (Horizontal Package) transmitters and receivers
- Data rates: Standard 12 Mbit/s, suitable for all common fieldbus systems
- Insert allows integration of HP standard contacts for POF and HCS®\* fibres
- Temperature range -40 °C ... +70 °C

Han-Brid® Cu

- For termination of a shielded twisted pair
- Insert for 2x Han D® male or female contacts
- Connection of the shield by means of shielding plate and fixing clamps
- Connection of the device side can be realized either by a printed circuit board as a modular version or as part of the appliance PCB
- Insert for bulkhead mounted housing or the coupling housing are always equipped with a screening spring

Bus Terminator

- Active bus terminator in male and female version
- Standard Han® 3 A hoods and housings
- Power supply to the termination network via electrical contacts of Han-Brid®
- Integrated, galvanically separated DC/DC converter 24 V / 5 V

Han-Brid® Quintax 3 A

- Possibility to terminate shielded four/eight wires conductors
- Possibility to terminate Coax cable with large diameter
- Suitable for all 4-wire bus systems
- Suitable for shielded cable conductor diameter 3 – 9.5 mm
- Transmission of shielding separately from the hood's ground
- Connections are carried out acc. to DIN EN 50 173, Cat. 5
- Temperature range -40 °C ... +70 °C

Han-Brid® RJ45 C

- Suitable for standard RJ 45 Plug and Jack, shielded version
- Connections provided for conductors acc. to DIN EN 50 173, Cat. 5
- Termination from the device side is carried out via a PCB, two versions are possible: modular version or as part of the appliance PCB
- Assembly with standard tools
- Insert for 2 Han-D® male or female contacts offers the combination with electrical bus connector
- Rated current 10 A
- Rated voltage 24 V
- termination side 0.14 - 2.5 mm²

Han-Brid® USB

- Insert for all Han® 3 A hoods and housings
- Hood with glued sealing
- Simple and low-cost termination via insert of a patch cable
- Strain-relief via cable tie

Han-Brid® FireWire

- Insert for all Han® 3 A hoods and housings
- Hood with glued sealing
- Simple and low-cost termination via insert of a patch cable
- Strain-relief via cable tie
- Compatible to IEEE 1394

Han® 4 A SC

- Suitable with housings, size Han® 3 A including versions Han® M, Han® EMV and Han® HPR
- Degree of protection up to IP 68
- For fibre optic SC contacts; up to 4 SC contacts per connector
- For 1 mm POF
- For Multimode fibre 50 - 62.5 / 125 µm and Single-mode fibre 9 / 125 µm
- Full ceramic sleeves for a minimal insertion loss

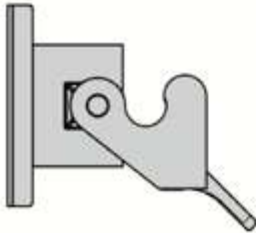
\* HCS® = Hard Clad Silica (registered trade mark of the SpecTran Corporation)

## Overview (Sample: Han-Brid® Cu)

Thermoplastic  
 09 20 003 0320 (light grey)  
 09 20 003 0327 (black)

Metal  
 09 20 003 0301

EMC  
 09 62 003 0301



Device side  
 09 12 006 2611  
 09 12 006 2695  
 09 12 006 2694

Cable side  
 09 12 006 3111

Thermoplastic  
 19 20 003 0423 (light grey)  
 19 20 003 0426 (black)

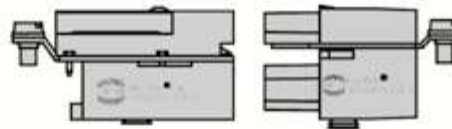
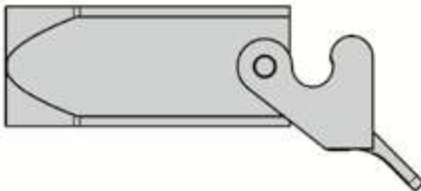
Metal  
 19 20 003 1443

EMC  
 19 62 003 1443

Thermoplastic  
 19 20 003 0720 (light grey)  
 19 20 003 0727 (black)

Metal  
 19 20 003 1750

EMC  
 19 62 003 1750



Device side  
 09 12 006 2701  
 09 12 006 2795  
 09 12 006 2794

Cable side  
 09 12 006 3001

Thermoplastic  
 19 20 003 0623 (light grey)  
 19 20 003 0627 (black)

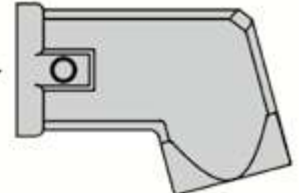
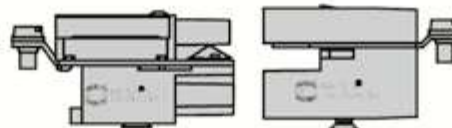
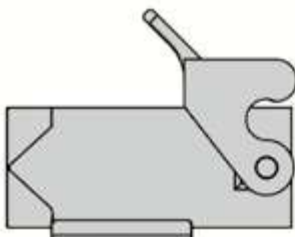
Metal  
 19 20 003 1643

EMC  
 19 62 003 1643

Thermoplastic  
 19 20 003 0220 (light grey)  
 19 20 003 0227 (black)

Metal  
 19 20 003 1250

EMC  
 19 62 003 1250





Overview (Sample: Han-Brid® RJ45 C)

Han-Brid

Thermoplastic  
09 20 003 0320 (light grey)  
09 20 003 0327 (black)

Metal  
09 20 003 0301

EMC  
09 62 003 0301

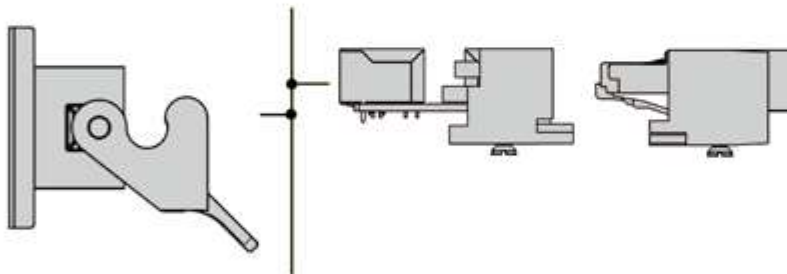
Device side  
09 12 003 2770  
09 12 003 2774  
09 12 003 2776

Cable side  
09 12 003 3011  
09 12 003 3021  
09 12 003 3031

Thermoplastic  
19 20 003 0423 (light grey)  
19 20 003 0427 (black)

Metal  
09 20 003 1443

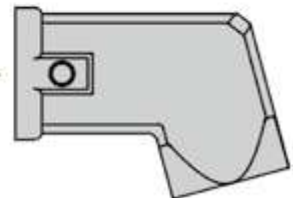
EMC  
19 62 003 1443



Thermoplastic  
19 20 003 0623 (light grey)  
19 20 003 0627 (black)

Metal  
19 20 003 1643

EMC  
19 62 003 1643



Features


Power supply

General Description

The Han-Brid® series allows the connection of a data interface and a power supply in a single space saving connector. This means that it is now possible to provide data transmission and power to devices in a single bus structure. This hybrid connector family includes provision for connection of a max. 50 V, 10 A power supply together with a range of inserts for connection of a variety of data protocols and transmission medias:

- Han-Brid® F.O. for plastic (POF) or for HCS®\* optical fibre
- Han-Brid® Cu for shielded twisted pair
- Han-Brid® Quintax 3 A for Coax cable with large diameter
- Han-Brid® Quintax 3 A for shielded 4 or 8 wire bus systems
- Han-Brid® RJ45 C for Ethernet application
- Han-Brid® USB / Firewire for fast data transmission

Han-Brid® inserts fit into the standard plastic as well as metal hoods and housings with seal of the Han® 3 A series offering a degree of protection IP 65 according to DIN EN 60 529. For harsher environments Han® 3 HPR hoods and housings with a degree of protection of IP 68 can be used.

- Han D® male and female with standard crimp contacts (Order crimp contacts separately)
- Rated current 10 A
- Rated voltage 50 V
- termination side 0.14 - 2.5 mm<sup>2</sup>
- Approval 

## Features

- for termination of a shielded twisted pair
- Insert for Han D® male or female contacts
- Connection of the shield by means of shielding plate and contact springs
- Connection of the device side can be realised either by a printed circuit board as a modular version or as part of the appliance PCB
- Insert for bulkhead mounted or cable to cable housings are always equipped with a contact spring
- Active bus terminator in standard Han® 3 A hoods and housings
- Power supply to the termination network via electrical contacts of Han-Brid®
- Integrated, galvanically separated DC/DC converter 24 V / 5 V

## Technical characteristics

Number of contacts	2
Additional contacts	+ 4 electrical contacts 10 A + option for PE
Rated current	10 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Insulation resistance	>10 <sup>10</sup> Ω
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (hood/housing)	Polycarbonate (PC), Zinc die-cast
Colour (hood/housing)	RAL 9005 (jet black), RAL 7037 (dust grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption, compliant

## Specifications and approvals

IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076

Number of contacts

# 2

10 A 50 V 0.8 kV 3  
+ 4 electrical contacts 10 A + option for PE



Han-Brid

Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
Han-Brid®, Han-Brid® Cu, Hybrid field bus connector  Device side	09 12 006 2611		  Also available as single parts: 09 12 002 2611 Upper part, loaded 09 12 002 3011 Upper part, unloaded 09 12 004 3011 Lower part, unloaded
Han-Brid®, Han-Brid® Cu, Hybrid field bus connector  Cable side		09 12 006 3111	  Contact arrangement (view from termination side)

Number of contacts

# 2

10 A 50 V 0.8 kV 3  
+ 4 electrical contacts 10 A + option for PE



Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
Han-Brid®, Han-Brid® Cu, Hybrid field bus connector  Device side		09 12 006 2701	<p>Also available as single parts:                      09 12 002 2701 Upper part, loaded                      09 12 002 3101 Upper part, unloaded                      09 12 004 3101 Lower part, unloaded</p>
Han-Brid®, Han-Brid® Cu, Hybrid field bus connector  Cable side	09 12 006 3001		

Number of contacts

# 2

10 A 50 V 0.8 kV 3  
+ 4 electrical contacts 10 A + option for PE



Han-Brid

Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
Han-Brid®, Han-Brid® Cu, Bus terminator, Plastic hoods/housings	09 12 006 2691	09 12 006 2791	
Han-Brid®, Han-Brid® Cu, Bus terminator, Metal hoods / housings	09 12 006 2692	09 12 006 2792	
Han-Brid®, Han-Brid® Cu, Panel feed through	09 12 006 2694	09 12 006 2794	
Han-Brid®, Han-Brid® Cu, Panel feed through	09 12 006 2695	09 12 006 2795	<p>X = Cutting off the fin allows the use in cable to cable housings.</p>
Han-Brid®, Han-Brid® Cu, Panel feed through  With cage clamp	09 12 006 2695	09 12 006 2795	

## Features

- Is suitable for all HP Versatile Link (Horizontal Package) transmitters and receivers
- Data rates: Standard 12 Mbit/s, suitable for all common field-bus systems
- Insert allows integration of HP standard contacts for POF and HCS® fibres

## Technical characteristics

Number of contacts	2
Additional contacts	+ 4 electrical contacts 10 A + option for PE
Rated current	10 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Insulation resistance	>10 <sup>10</sup> Ω
Limiting temperature	-40 ... +70 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Specifications and approvals

IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076

Number of contacts

# 2

10 A 50 V 0.8 kV 3  
+ 4 electrical contacts 10 A + option for PE



Han-Brid

Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
Han-Brid®, Han-Brid® FO, Hybrid field bus connector  Device side FO (f) + Han D® (m) With PCB	09 12 004 2611		<p>Contact arrangement (view from termination side) Also available as single parts: 09 12 004 3011 Lower part, unloaded</p>
Han-Brid®, Han-Brid® FO, Hybrid field bus connector  Cable side FO (m) + Han D® (f) for POF		09 12 004 2711	<p>09 12 004 3111 Unloaded</p>
Han-Brid®, Han-Brid® FO, Hybrid field bus connector  Cable side FO (m) + Han D® (f) for POF crimpless		09 12 004 2713	<p>09 12 004 3113 Unloaded</p>
Han-Brid®, Han-Brid® FO, Hybrid field bus connector  Cable side FO (m) + Han D® (f) for HCS® fibre		09 12 004 2716	<p>09 12 004 3116 Unloaded</p>



Number of contacts

# 2

10 A 50 V 0.8 kV 3  
+ 4 electrical contacts 10 A + option for PE



Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
Han-Brid®, Han-Brid® FO, Hybrid field bus connector  Device side FO (f) + Han D® (f) With PCB		09 12 004 2701	<p>Also available as single parts: 09 12 004 3101 Lower part, unloaded</p>
Han-Brid®, Han-Brid® FO, Hybrid field bus connector  Cable side FO (m) + Han D® (m) for POF	09 12 004 2601		<p>09 12 004 3001 Unloaded</p>
Han-Brid®, Han-Brid® FO, Hybrid field bus connector  Cable side With FO contacts FO (m) + Han D® (m) for POF crimpless	09 12 004 2603		<p>09 12 004 3003 Unloaded</p>
Han-Brid®, Han-Brid® FO, Hybrid field bus connector  Cable side FO (m) + Han D® (m) for HCS® fibre	09 12 004 2606		<p>09 12 004 3006 Unloaded</p>

## Features

- Possibility to terminate shielded four/eight wires conductors (2 pair STP)
- Possibility to terminate Coax cable with large diameter
- Suitable for all 4-wire bus systems
- Suitable for shielded cable conductor diameter 3 ... 9.5 mm
- Transmission of shielding separately from the hood's ground
- Connections are carried out acc. to EN 50173, Cat. 5

## Technical characteristics

Number of contacts	1, 4, 8
Additional contacts	+ shielding + 2 power contacts
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 3 \text{ m}\Omega$
Limiting temperature	-40 ... +70 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076

## Details

ATTENTION! Han-Brid® Quintax in Han® HPR housings only to be used with the long version!

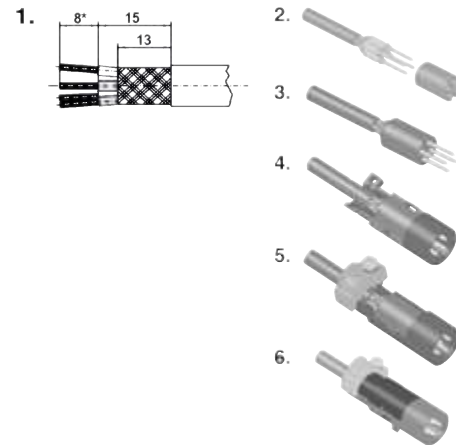
## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

### Assembly instructions



1. Strip cable acc. to drawing 1 and fold the shielding over the cable.
2. Crimp Han D® contacts onto the wires.
3. Insert Han D® contacts into corresponding cavities of insulator until they are snapped in.
4. Fit the insert including the cable into the opened shielded bushing. The coding pin of the shielded bushing has to meet the groove of the insulator.
5. Clamp the tilt over the shielding onto the cable by means of the special clamp (small opening for cable diameter of 3 ... 6 mm, large opening for cable diameter of 6 ... 9.5 mm).
6. Check the wiring. Close the shielded bushing with the cover and insert it into the corresponding cavity of the Quintax Module as usual.


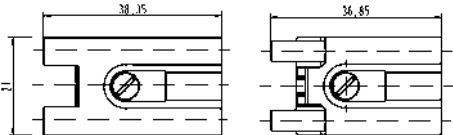

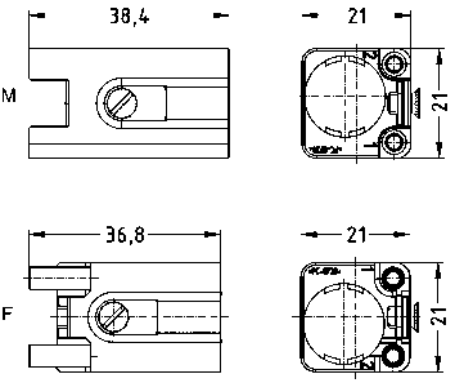

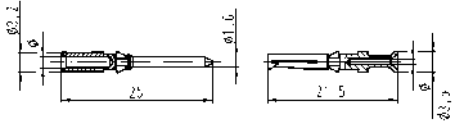
Number of contacts

# 1,4,8

+ shielding + 2 power contacts



Han-Brid

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																					
		Male	Female																						
Han-Brid®, Han-Brid® Quintax 3 A, Crimp termination  <p>Please order crimp contacts separately.</p>	0.14 ... 2.5	09 15 003 3001	09 15 003 3101																						
Han-Brid®, Han-Brid® Quintax 3 A, Snap-in latches, snap-fit, Crimp termination  <p>Please order crimp contacts separately.</p>	0.14 ... 2.5	09 15 003 3002	09 15 003 3102																						
Han D®, Crimp contact, Contact surface: Gold plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5	09 15 000 6124 09 15 000 6123 09 15 000 6125 09 15 000 6122 09 15 000 6121 09 15 000 6126	09 15 000 6224 09 15 000 6223 09 15 000 6225 09 15 000 6222 09 15 000 6221 09 15 000 6226																						
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2.5 mm <sup>2</sup> AWG 14	2.25 mm	6 mm																							

Number of contacts

# 1

10 A 50 V 0.8 kV 3  
+ shielding

Han-Brid

## Technical characteristics

Number of contacts	1
Additional contacts	+ shielding
Rated current	10 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Contact resistance	≤3 mΩ
Contact resistance, shielding	≤100 mΩ
Impedance	75 Ω
Limiting temperature	-40 ... +85 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Material (shielding)	Zinc die-cast, nickel-plated
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0

## Technical characteristics

RoHS compliant, compliant with exemption

## Specifications and approvals


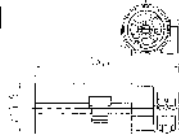
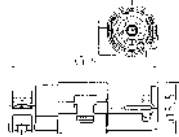
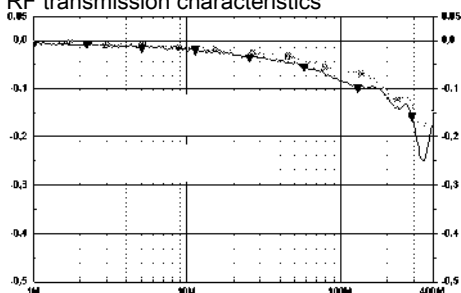
EN 60664-1  
IEC 61984

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han® D Coax, Crimp termination, for Han D® crimp contacts    Please order crimp contacts separately.	0.14 ... 2.5	09 15 001 3013	09 15 001 3113	M  F   RF transmission characteristics  ■ 75 Ohm Cable ▼ 75 Ohm Cable with Han D® Coax

Han-Brid

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																					
		Male	Female																						
Han D®, Crimp contact, Contact surface: Gold plated	0.14 ... 0.37	09 15 000 6124	09 15 000 6224																						
	0.5	09 15 000 6123	09 15 000 6223																						
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Number of contacts

# 1

16 A 50 V 0.8 kV 3  
+ shielding

Han-Brid

## Technical characteristics

Number of contacts	1
Additional contacts	+ shielding
Rated current	16 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Contact resistance	≤1 mΩ
Contact resistance, shielding	≤100 mΩ
Impedance	50 Ω
Limiting temperature	-40 ... +85 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Material (shielding)	Zinc die-cast, nickel-plated
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0

## Technical characteristics

RoHS compliant, compliant with exemption

## Specifications and approvals


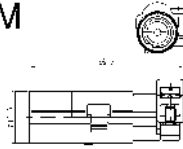
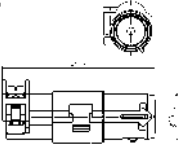
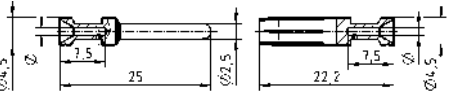

EN 60664-1  
IEC 61984

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																								
		Male	Female																									
Han® E Coax, Crimp termination, for Han E® crimp contacts  <p>Please order crimp contacts separately.</p>	0.14 ... 4	09 15 001 3023	09 15 001 3123	M  F  <table border="1"> <tr> <td>Han E® Coax with RG 213 cable (2.5 mm<sup>2</sup>)</td> <td>200 MHz</td> <td>500 MHz</td> <td>1.0 GHz</td> <td>1.2 GHz</td> <td>1.5 GHz</td> <td>2.0 GHz</td> <td>2.5 GHz</td> </tr> <tr> <td>Return loss [db]</td> <td>23.8</td> <td>21.1</td> <td>&gt;18.7</td> <td>&gt;17.7</td> <td>&gt;16.4</td> <td>&gt;14.1</td> <td>&gt;12.0</td> </tr> <tr> <td>Attenuation [db]</td> <td>0.07</td> <td>0.11</td> <td>0.17</td> <td>0.2</td> <td>&lt;0.23</td> <td>&lt;0.53</td> <td>&lt;2.0</td> </tr> </table> 	Han E® Coax with RG 213 cable (2.5 mm <sup>2</sup> )	200 MHz	500 MHz	1.0 GHz	1.2 GHz	1.5 GHz	2.0 GHz	2.5 GHz	Return loss [db]	23.8	21.1	>18.7	>17.7	>16.4	>14.1	>12.0	Attenuation [db]	0.07	0.11	0.17	0.2	<0.23	<0.53	<2.0
Han E® Coax with RG 213 cable (2.5 mm <sup>2</sup> )	200 MHz	500 MHz	1.0 GHz	1.2 GHz	1.5 GHz	2.0 GHz	2.5 GHz																					
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Attenuation [db]	0.07	0.11	0.17	0.2	<0.23	<0.53	<2.0																					
Han E®, Crimp contact, Contact surface: Gold plated 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5 4	09 33 000 6117 09 33 000 6122 09 33 000 6115 09 33 000 6118 09 33 000 6116 09 33 000 6123 09 33 000 6119	09 33 000 6217 09 33 000 6222 09 33 000 6215 09 33 000 6218 09 33 000 6216 09 33 000 6223 09 33 000 6221	<table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Identification</th> </tr> </thead> <tbody> <tr><td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td><td>no groove</td></tr> <tr><td>0.5 mm<sup>2</sup> AWG 20</td><td>no groove</td></tr> <tr><td>0.75 mm<sup>2</sup> AWG 18</td><td>1 groove*</td></tr> <tr><td>1 mm<sup>2</sup> AWG 18</td><td>1 groove</td></tr> <tr><td>1.5 mm<sup>2</sup> AWG 16</td><td>2 groove</td></tr> <tr><td>2.5 mm<sup>2</sup> AWG 14</td><td>3 groove</td></tr> <tr><td>3 mm<sup>2</sup> AWG 12</td><td>wide groove</td></tr> <tr><td>4 mm<sup>2</sup> AWG 12</td><td>no groove</td></tr> </tbody> </table> <p>* on the back crimp collar</p> <p>Stripping length 7.5 mm</p>	Conductor cross-section	Identification	0.14-0.37 mm <sup>2</sup> AWG 26-22	no groove	0.5 mm <sup>2</sup> AWG 20	no groove	0.75 mm <sup>2</sup> AWG 18	1 groove*	1 mm <sup>2</sup> AWG 18	1 groove	1.5 mm <sup>2</sup> AWG 16	2 groove	2.5 mm <sup>2</sup> AWG 14	3 groove	3 mm <sup>2</sup> AWG 12	wide groove	4 mm <sup>2</sup> AWG 12	no groove						
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3 mm <sup>2</sup> AWG 12	wide groove																											
4 mm <sup>2</sup> AWG 12	no groove																											

Number of contacts

# 4

10 A 50 V 0.8 kV 3  
+ shielding

Han-Brid

## Features

- Shielding bus separate from housing potential
- Suitable for the transmission of sensitive signals (e.g. bus signals)
- The four pole Han® Quintax contact is suitable for Ethernet cat. 5 and PROFIBUS when diagonally wiring of the data pairs.

## Technical characteristics

Number of contacts	4
Additional contacts	+ shielding
Rated current	10 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Contact resistance	≤3 mΩ
Contact resistance, shielding	≤100 mΩ
Limiting temperature	-40 ... +85 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Material (shielding)	Zinc die-cast, nickel-plated
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption, compliant

## Specifications and approvals


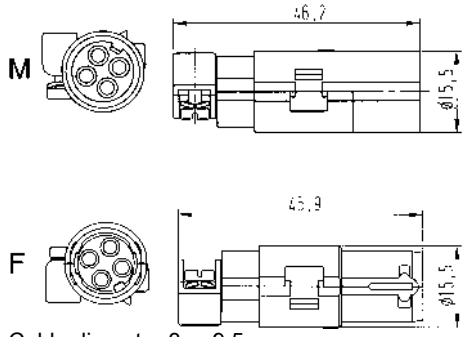
EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han-Quintax®, for Han D® crimp contacts   Please order crimp contacts separately.	0.14 ... 2.5	09 15 004 3013	09 15 004 3113	 Cable diameter 3 ... 9.5 mm

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																					
		Male	Female																						
Han D®, Crimp contact, Contact surface: Gold plated	0.14 ... 0.37	09 15 000 6124	09 15 000 6224																						
	0.5	09 15 000 6123	09 15 000 6223																						
	0.75	09 15 000 6125	09 15 000 6225																						
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1.5 mm <sup>2</sup> AWG 16	1.75 mm	8 mm																							
2.5 mm <sup>2</sup> AWG 14	2.25 mm	6 mm																							



Number of contacts

# 8

5 A 50 V 0.8 kV 3  
+ shielding

Han-Brid

## Technical characteristics


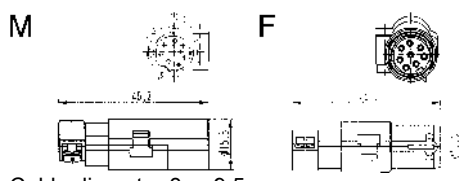

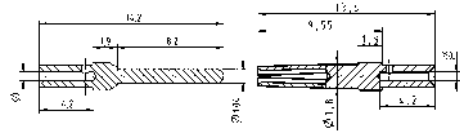
Number of contacts	8
Additional contacts	+ shielding
Rated current	5 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Contact resistance	≤10 mΩ
Contact resistance, shielding	≤100 mΩ
Limiting temperature	-40 ... +85 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Material (shielding)	Zinc die-cast, nickel-plated
Colour (insert)	RAL 7032 (pebble grey)

## Technical characteristics

Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E102079  
CSA-C22.2 No. 182.3 ECBT8.E102079

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)															
		Male	Female																
Han-Quintax® High Density, for Han® D-Sub crimp contacts  <p>Please order crimp contacts separately.</p>	0.09 ... 0.52	09 15 008 3013	09 15 008 3113	 <p>Cable diameter 3 ... 9.5 mm</p>															
D-Sub, Standard, Crimp contact 	0.09 ... 0.25 0.13 ... 0.33 0.25 ... 0.52	09 67 000 7576 09 67 000 5576 09 67 000 8576	09 67 000 7476 09 67 000 5476 09 67 000 8476		 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.09-0.25 mm<sup>2</sup></td> <td>0.64 mm</td> <td>4 mm</td> </tr> <tr> <td>0.13-0.33 mm<sup>2</sup></td> <td>0.86 mm</td> <td>4 mm</td> </tr> <tr> <td>0.25-0.52 mm<sup>2</sup></td> <td>1.13 mm</td> <td>4 mm</td> </tr> <tr> <td>0.33-0.82 mm<sup>2</sup></td> <td>1.34 mm</td> <td>4 mm</td> </tr> </tbody> </table> <p>for stranded wire according IEC 60228 Class 5</p>	Conductor cross-section	ø	Stripping length	0.09-0.25 mm <sup>2</sup>	0.64 mm	4 mm	0.13-0.33 mm <sup>2</sup>	0.86 mm	4 mm	0.25-0.52 mm <sup>2</sup>	1.13 mm	4 mm	0.33-0.82 mm <sup>2</sup>	1.34 mm
Conductor cross-section	ø	Stripping length																	
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0.13-0.33 mm <sup>2</sup>	0.86 mm	4 mm																	
0.25-0.52 mm <sup>2</sup>	1.13 mm	4 mm																	
0.33-0.82 mm <sup>2</sup>	1.34 mm	4 mm																	

## Features

- Suitable for standard RJ 45 Plug and Jack, shielded version
- Connections are carried out acc. to EN 50173, Cat. 5
- Connection of the device side can be realised either by a printed circuit board as a modular version or as part of the appliance PCB
- Assembly with standard tools
- Insert for 2 Han-D® male or female contacts offers the combination with electrical bus connector

## Technical characteristics

Number of contacts	2
Additional contacts	+ RJ45
Rated current	10 A
Rated voltage	24 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Insulation resistance	>10 <sup>10</sup> Ω
Limiting temperature	-40 ... +70 °C, -40 ... +125 °C
Mating cycles	≥500
Wire outer diameter	≤1.6 mm
Transmission characteristics	Cat. 5, Class D up to 100 MHz
Data rate	10 Mbit/s, 100 Mbit/s
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Specifications and approvals


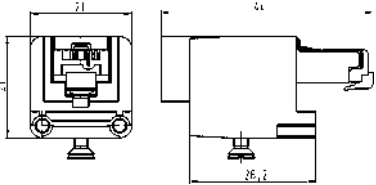



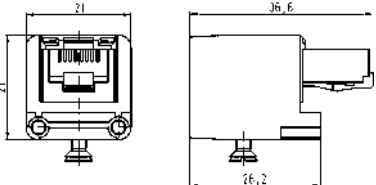

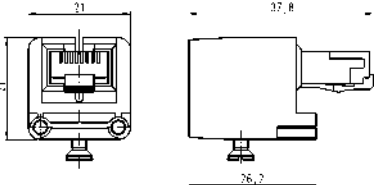
IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL


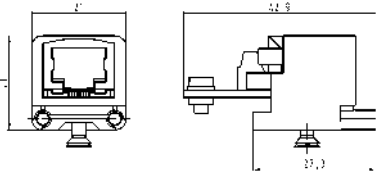

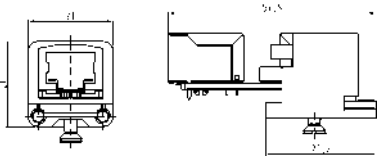

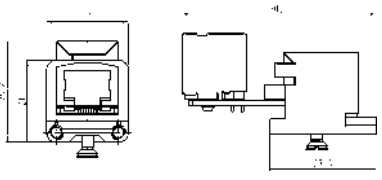
Number of contacts

# 2

10 A 24 V 0.8 kV 3  
+ RJ45

Han-Brid

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han-Brid®, Han-Brid® RJ45 C, hybrid network connector  	0.12 Stranded 0.22 ... 0.32 Stranded, 0.26 ... 0.32 Solid	09 12 003 3013 09 12 003 3011		
With RJ Industrial  Han-Brid®, Han-Brid® RJ45 C, hybrid network connector, 10 Gbit/s  		09 12 003 3015		
With RJ Industrial  Han-Brid®, Han-Brid® RJ45 C, hybrid network connector, Cat. 6A  		09 12 003 3016		
With RJ Industrial  Han-Brid®, Han-Brid® RJ45 C, hybrid network connector  		09 12 003 3021		
With Stewart RJ45  Han-Brid®, Han-Brid® RJ45 C, hybrid network connector  		09 12 003 3031		
With HIROSE RJ45				

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)	
		Male	Female		
<p>Han-Brid®, Han-Brid® RJ45 C, hybrid network connector</p>  <p>Panel feed through With 4-pin terminal block</p>			09 12 003 2770		
<p>Han-Brid®, Han-Brid® RJ45 C, hybrid network connector</p>  <p>Panel feed through Straight</p>			09 12 003 2774		
<p>Han-Brid®, Han-Brid® RJ45 C, hybrid network connector</p>  <p>Panel feed through Angled</p>			09 12 003 2776		

Han-Brid

Number of contacts

# 2

1 A 50 V 0.8 kV 3  
+ USB

Han-Brid

## Features


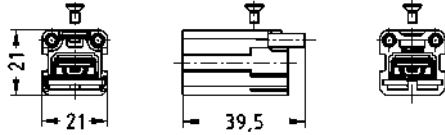

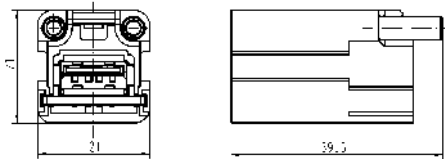

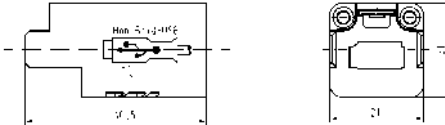
- Insert for all Han® 3 A hoods with glued seal
- Simple and cost effective termination by plug in patch cable
- Cable tie strain relief

## Technical characteristics

Number of contacts	2
Additional contacts	+ USB
Rated current	1 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≥4 mΩ
Limiting temperature	-40 ... +85 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076

Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
Han-Brid®, Han-Brid® USB, USB 3.0  	09 12 001 2793		
Device side Han-Brid®, Han-Brid® USB, USB 2.0  	09 12 001 2794		
Device side Han-Brid®, Han-Brid® USB  		09 12 001 3091	
Cable side			

Number of contacts

# 2

1 A 50 V 0.8 kV 3  
+ FireWire

Han-Brid

## Features



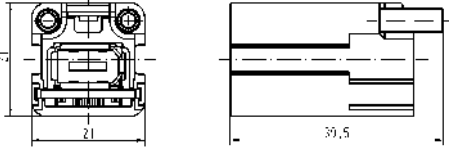
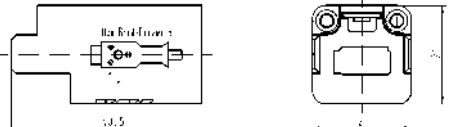
- Insert for all Han® 3 A hoods with glued seal
- Simple and cost effective termination by plug in patch cable
- Cable tie strain relief
- Compatibel to IEEE 1394

## Technical characteristics

Number of contacts	2
Additional contacts	+ FireWire
Rated current	1 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≥4 mΩ
Limiting temperature	-40 ... +85 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076

Identification	Part number		Drawing (dimensions in mm)	
	Male	Female		
Han-Brid®, Han-Brid® FireWire    Device side  Han-Brid®, Han-Brid® FireWire    Cable side	09 12 001 2774	09 12 001 3071		

## Features

- Suitable for housings, size Han® 3 A including versions Han® M, Han® EMC and Han® HPR
- Degree of protection up to IP68
- Suitable for HARTING SC contacts
- for Multimode fibre 50 - 62.5 / 125 µm and Singlemode fibre 9 / 125 µm
- 4 full ceramic sleeves for a minimal insertion loss
- 1 mm POF

## Technical characteristics

Number of contacts	4
Insulation resistance	$>10^{10} \Omega$
Limiting temperature	-40 ... +85 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption, compliant

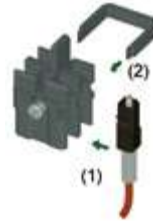
## Specifications and approvals

UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076

## Details

### Assembly instructions

Male module



Assemble the SC contact

- ① Push the SC contact from the side into the relevant insert
- ② Push the spring clip over the contact body.

### Assembly instructions

Female module



Assemble the SC contact

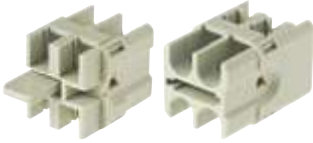
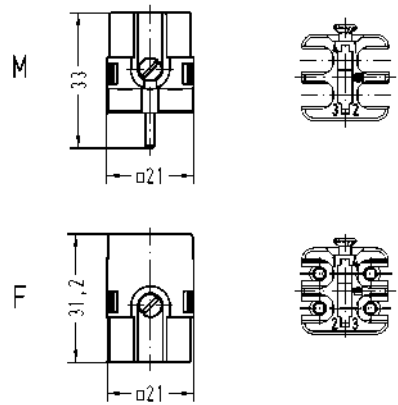

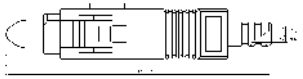

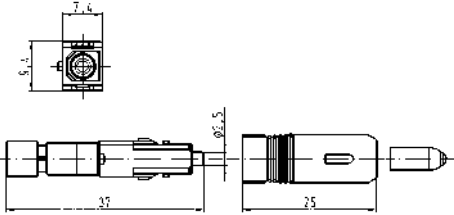

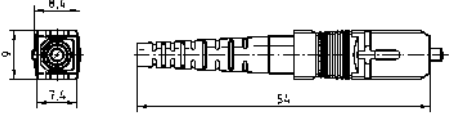
- ① Push the centering ferrule (included in delivery) on the SC contact
- ② Push the SC contact from the side into the relevant insert
- ③ Push the spring clip over the contact body.

Number of contacts

# 4

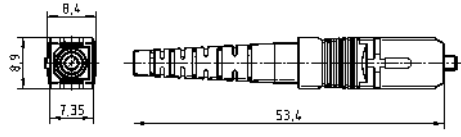
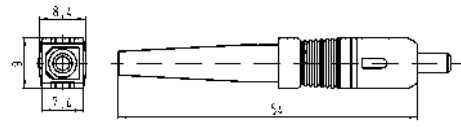


Han-Brid

Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
<p>Han-Brid®, Han® 4 A SC, for FO</p>  <p>Please order contacts separately.</p>	09 20 004 4701	09 20 004 4711	 <p>Contact arrangement (view from termination side) The female inserts are equipped with centering ferrules. 4 ferrules are included within the delivery.</p>
<p>SC contact, for 1 mm plastic fibre, Crimp termination</p> 	20 10 001 5211		
<p>SC contact, for 1 mm plastic fibre, Fast termination</p> 	20 10 001 5217		
<p>SC contact, for singlemode fibre 9/125 µm</p> 	20 10 125 5220		



Han-Brid

Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
SC contact, for GI fibre 50/125 µm, for ceramic ferrule 62.5/125 µm	20 10 125 5211		
SC contact, for SI fibre (HCS®) 200/230 µm	20 10 230 5211		





Standard Hoods/housings for industrial applications  
Single locking lever

Han-Brid

### Features

- Hoods/housings for industrial applications
- With glued seal

### Technical characteristics

Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP44, IP65 / IP67, with seal screw 09 20 000 9918
Type rating acc. to UL 50 / UL 50E	12
Material (hood/housing)	Zinc die-cast
Surface (hood/housing)	Powder-coated
Colour (hood/housing)	RAL 7037 (dust grey)
Material (seal)	NBR
RoHS	compliant with exemption, compliant


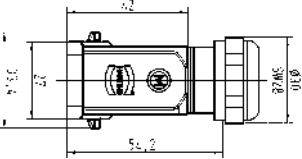

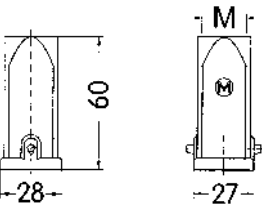
### Specifications and approvals

DNV GL




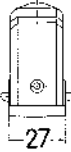
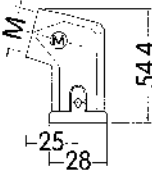
### Details

The special hoods with glued seal can be combined with standard housings (see chapter Han 31).

Identification	Cable entry	Cable diameter (mm)	Part number	Drawing (dimensions in mm)
Han A®, Hood, for Han-Brid®, With glued seal, With integrated cable gland, Top entry, IP44, IP65 / IP67 with seal screw 09 20 000 9918  	1x Integrated 1x Integrated	5 ... 13 6 ... 12	19 20 003 1423 19 20 003 1425	
Han A®, Hood, for Han-Brid®, With glued seal, Top entry, IP44, IP65 / IP67 with seal screw 09 20 000 9918  	1x M20 1x M25		19 20 003 1443 19 20 003 1447	



Han-Brid

Identification	Cable entry	Cable diameter (mm)	Part number	Drawing (dimensions in mm)	
<p>Han A®, Hood, for Han-Brid®, With glued seal, Side entry, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p> 	<p>1x M20</p>		<p>19 20 003 1643</p>		

Standard Hoods/housings for industrial applications  
Single locking lever

Han-Brid

### Features

- Hoods/housings for industrial applications
- With glued seal

### Technical characteristics

Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP44, IP65 / IP67, with seal screw 09 20 000 9918
Type rating acc. to UL 50 / UL 50E	4, 4X, 12
Material (hood/housing)	Polycarbonate (PC)
Colour (hood/housing)	RAL 7032 (pebble grey), RAL 9005 (jet black)
Material (seal)	NBR
Material flammability class acc. to UL 94	V-0
RoHS	compliant


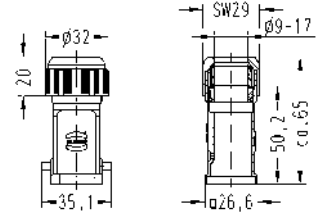

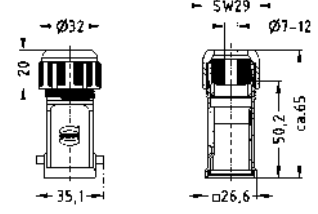
### Specifications and approvals

UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
DNV GL


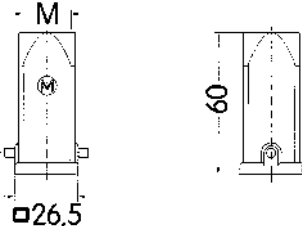


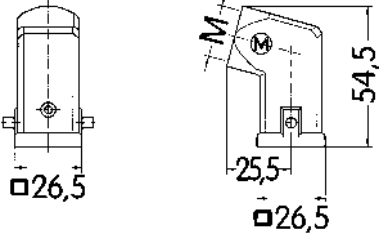



### Details

The special hoods with glued seal can be combined with standard housings (see chapter Han 31).

Identification	Cable entry	Cable diameter (mm)	Part number	Drawing (dimensions in mm)
Han A®, Hood, for Han-Brid®, With glued seal, With integrated cable gland, Top entry, IP44, IP65 / IP67 with seal screw 09 20 000 9918 	1x Integrated	9 ... 17	19 20 003 0413	
Han A®, Hood, for Han-Brid®, With glued seal, With integrated cable gland, Top entry, Black, IP44, IP65 / IP67 with seal screw 09 20 000 9918 	1x Integrated 1x Integrated	7 ... 12 9 ... 17	19 20 003 0421 19 20 003 0418	

Han-Brid

Identification	Cable entry	Cable diameter (mm)	Part number	Drawing (dimensions in mm)
Han A®, Hood, for Han-Brid®, With glued seal, Top entry, IP44, IP65 / IP67 with seal screw 09 20 000 9918 	1x M20 1x M25		19 20 003 0423 19 20 003 0433	
Han A®, Hood, for Han-Brid®, With glued seal, Top entry, Black, IP44, IP65 / IP67 with seal screw 09 20 000 9918 	1x M20 1x M25		19 20 003 0426 19 20 003 0436	
Han A®, Hood, for Han-Brid®, With glued seal, Side entry, IP44, IP65 / IP67 with seal screw 09 20 000 9918 	1x M20		19 20 003 0623	
Han A®, Hood, for Han-Brid®, With glued seal, Side entry, Black, IP44, IP65 / IP67 with seal screw 09 20 000 9918 	1x M20		19 20 003 0626	

Hoods/housings for rough environments  
Single locking lever

Han-  
Brid

### Features

- Hoods/housings for rough environments
- Corrosion resistance ASTM B117-09 (500 h)
- With glued seal

### Technical characteristics

Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP65, IP67
Material (hood/housing)	Zinc die-cast
Surface (hood/housing)	Powder-coated
Colour (hood/housing)	RAL 9005 (jet black)
Material (seal)	FPM
RoHS	compliant


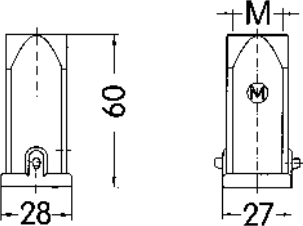

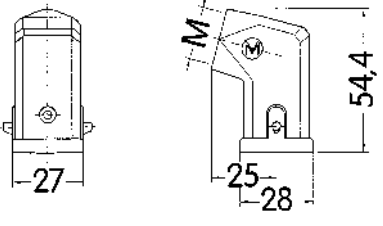
### Specifications and approvals

DNV GL



### Details

The special hoods with glued seal can be combined with standard housings (see chapter Han 31).

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® M, Hood, for Han-Brid®, With glued seal, Top entry, IP65, IP67</p> <p>Pack contents: With seal screw</p> 	<p>1x M20 1x M25</p>	<p>19 37 003 1443 19 37 003 1447</p>	
<p>Han® M, Hood, for Han-Brid®, With glued seal, Side entry, IP65, IP67</p> <p>Pack contents: With seal screw</p> 	<p>1x M20</p>	<p>19 37 003 1643</p>	

Hoods/Housings for higher EMC requirements  
Single locking lever

Han-Brid

### Features

- Hoods/Housings for higher EMC requirements
- With glued seal

### Technical characteristics

Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP44, IP65 / IP67, with seal screw 09 20 000 9918
Type rating acc. to UL 50 / UL 50E	12
Material (hood/housing)	Zinc die-cast
Surface (hood/housing)	Uncoated
Colour (hood/housing)	Unpainted
Material (seal)	NBR
RoHS	compliant


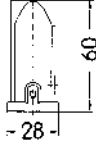


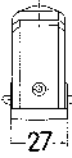
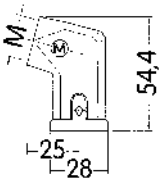
### Specifications and approvals

DNV GL



### Details

The special hoods with glued seal can be combined with standard housings (see chapter Han 31).

Identification	Cable entry	Part number	Drawing (dimensions in mm)	
Han® EMC, Hood, for Han-Brid®, With glued seal, Top entry, IP44, IP65 / IP67 with seal screw 09 20 000 9918  	1x M20 1x M25	19 62 003 1443 19 62 003 1447		
Han® EMC, Hood, for Han-Brid®, With glued seal, Side entry, IP44, IP65 / IP67 with seal screw 09 20 000 9918  	1x M20	19 62 003 1643		

Hoods/housings for harsh environments  
Single locking lever

Han-  
Brid

### Features

- Hoods/housings for harsh environments
- Extremely resistant to chemicals and other aggressive influences
- Made completely from high-quality stainless steel
- Extremely resistant to corrosion
- With glued seal

### Technical characteristics

Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP65, IP67
Type rating acc. to UL 50 / UL 50E	4, 4X, 12
Material (hood/housing)	Stainless steel
Surface (hood/housing)	Uncoated
Colour (hood/housing)	Unpainted
Material (seal)	NBR
RoHS	compliant


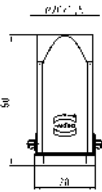
### Specifications and approvals

UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
DNV GL




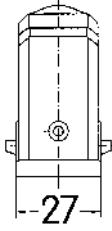
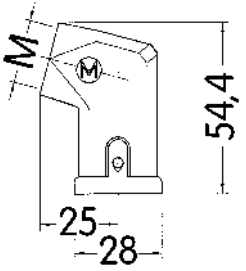
### Details

The special hoods with glued seal can be combined with standard housings (see chapter Han 31).

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han-INOX®, Hood, for Han-Brid®, With glued seal, Top entry, IP65, IP67</p> <p>Pack contents: With seal screw</p> 	1x M20	19 44 003 1443	



Han-Brid

Identification	Cable entry	Part number	Drawing (dimensions in mm)	
<p>Han-INOX®, Hood, for Han-Brid®, With glued seal, Side entry, IP65, IP67</p> <p>Pack contents: With seal screw</p> 	<p>1x M20</p>	<p>19 44 003 1643</p>		

## Features

- Hoods/housings for harsh outdoor environments
- Metal hoods and housings with excellent corrosion resistance
- Corrosion resistance ASTM B117-09 (500 h)
- Excellent EMC characteristics
- Screw locking M4
- Field of application: for external electrical interconnections in vehicles, in highly demanding environments and wet areas, as well as for sensitive interconnections that have to be shielded
- Distinguishing feature: colour-coded black, internal seal

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Tightening torque (screw locking)	2 Nm
Degree of protection acc. to IEC 60529	IP65, IP68, IP69 / IPX9K acc. to ISO 20653
Type rating acc. to UL 50 / UL 50E	4, 4X, 12
Material (hood/housing)	Zinc die-cast
Surface (hood/housing)	Powder-coated, Chromated
Colour (hood/housing)	RAL 9005 (jet black)
Material (locking)	Stainless steel
RoHS	compliant, not compliant


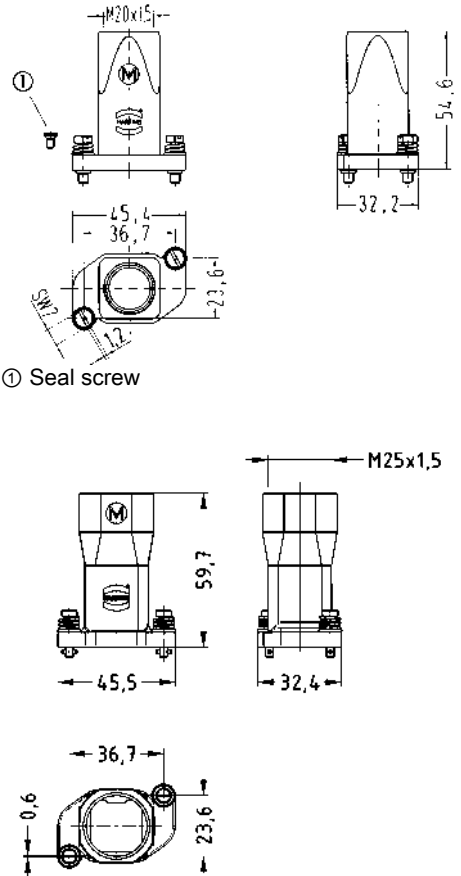
## Specifications and approvals

UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL

CE


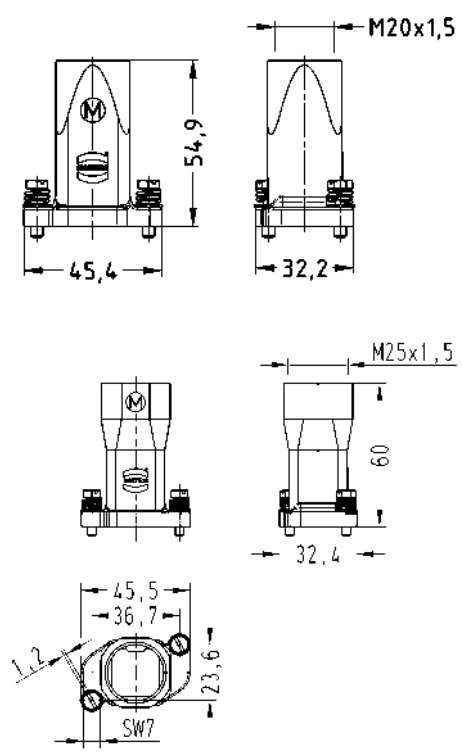
Hoods/housings for harsh outdoor environments  
Toggle locking

Han-  
Brid

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Hood, Top entry, IP65, IP68</p> <p>Pack contents: With seal screw</p> 	<p>1x M20 1x M25</p>	<p>19 40 703 0400 19 40 703 0401</p>	 <p>① Seal screw</p>


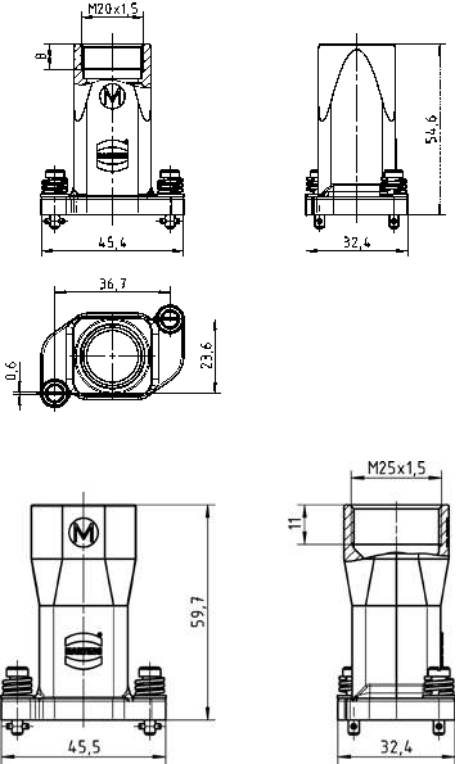
Hoods/housings for harsh outdoor environments  
Screw locking

Han-  
Brid

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Hood, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> <p>Pack contents: With seal screw</p> 	<p>1x M20 1x M25</p>	<p>19 40 703 0410 19 40 703 0411</p>	


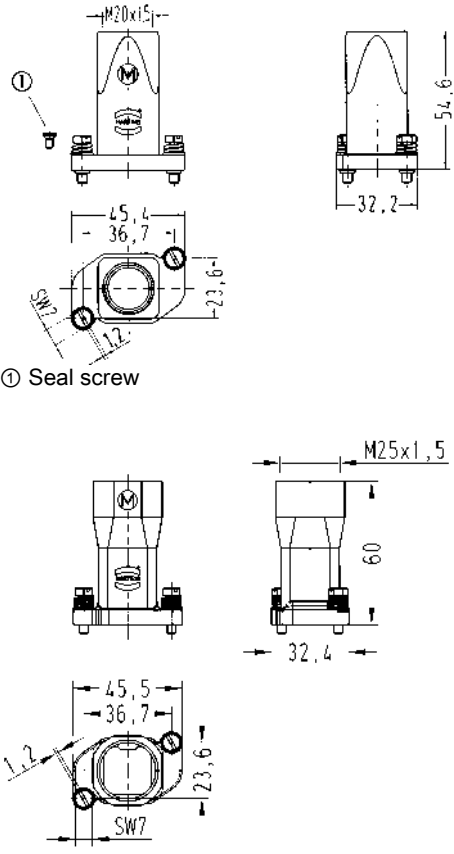
Hoods/housings for harsh outdoor environments  
Toggle locking

Han-  
Brid

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Hood, Top entry, IP65, IP68</p> <p>Pack contents: With seal screw</p> 	<p>1x M20 1x M25</p>	<p>19 40 003 0400 19 40 003 0401</p>	 <p>① Seal screw</p>

Hoods/housings for harsh outdoor environments  
Screw locking

Han-  
Brid

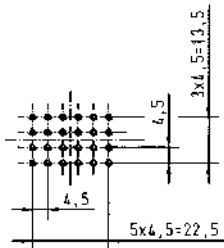
Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Hood, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> <p>Pack contents: With seal screw</p> 	<p>1x M20 1x M25</p>	<p>19 40 003 0410 19 40 003 0411</p>	 <p>① Seal screw</p>

Contents	Page
Han-Fast® Lock .....	<b>Han 20.11</b>
PCB adapter for Han® C module .....	<b>Han 20.13</b>
PCB adapter for Han DD® .....	<b>Han 20.14</b>
PCB adapter for Han® DDD module.....	<b>Han 20.17</b>
PCB adapter for Han® 40 A Axial module.....	<b>Han 20.19</b>
PCB adapter for Han E® .....	<b>Han 20.20</b>
PCB adapter for Han® 40 EEE .....	<b>Han 20.21</b>
PCB adapter for Han® Q 4/2 .....	<b>Han 20.22</b>
PCB adapter for Han® Q 5/0 .....	<b>Han 20.25</b>
PCB adapter for Han® Q 7/0 .....	<b>Han 20.28</b>
PCB adapter for Han® Q 8/0 .....	<b>Han 20.31</b>
PCB adapter for Han® Q 12/0 .....	<b>Han 20.34</b>

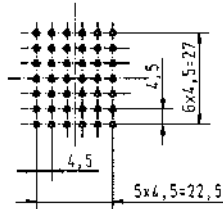
## Layout of PCB

PCB

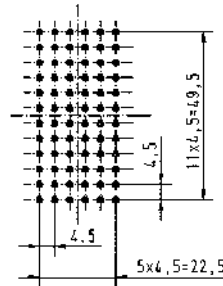
Han<sup>®</sup> 24 DD



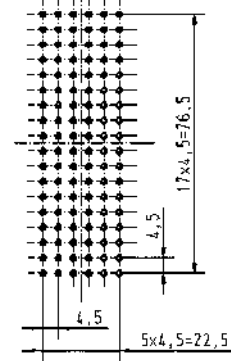
Han<sup>®</sup> 42 DD



Han<sup>®</sup> 72 DD

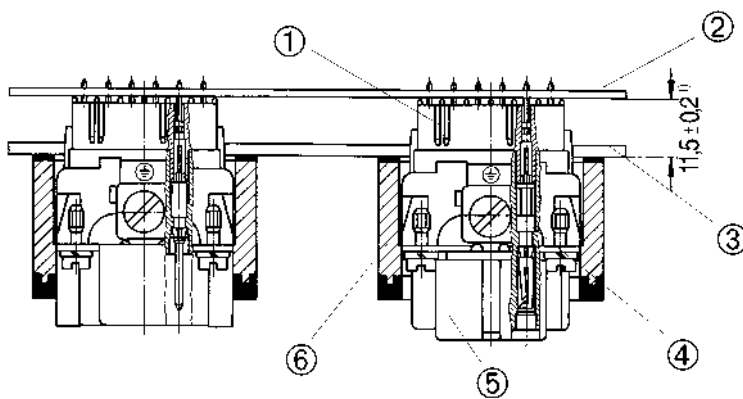


Han<sup>®</sup> 108 DD



Recommended hole diameter: 0.8 mm

## Assembly situation

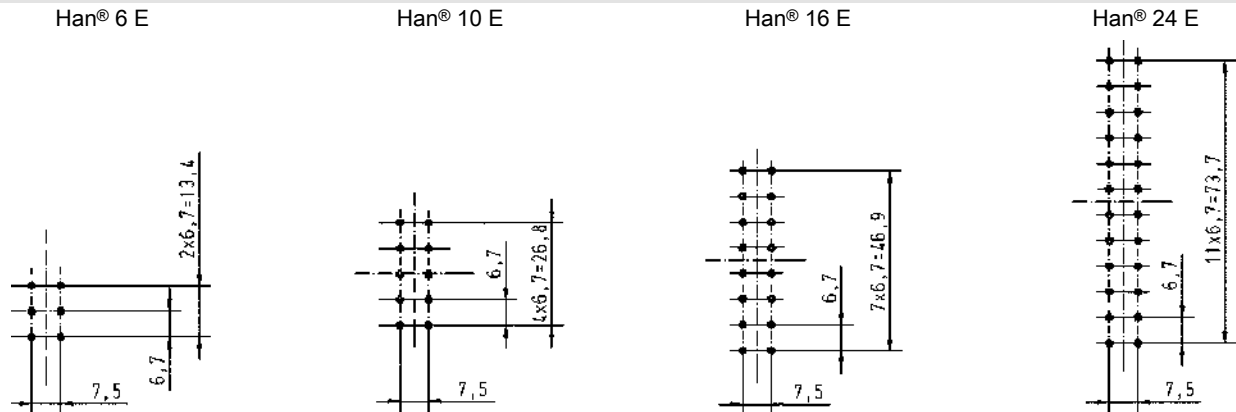


- ① PCB adapter
- ② Printed circuit board (PCB)
- ③ Switch board panel
- ④ Han DD<sup>®</sup> double contact
- ⑤ Han DD<sup>®</sup> insert
- ⑥ Han<sup>®</sup> B bulkhead mounted housing

1) for Han<sup>®</sup> B EMC housings spacing of  $12.5 \pm 0.2$  mm is necessary as no flange seal is used

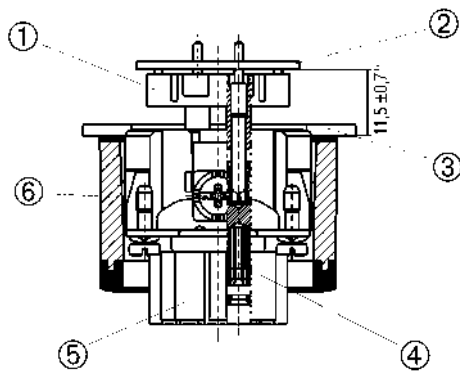


## Layout of PCB



PCB

## Assembly situation



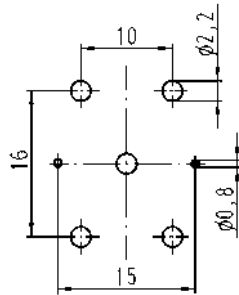
- ① PCB adapter
- ② Printed circuit board (PCB)
- ③ Switch board panel
- ④ Han E® double contact
- ⑤ Han E® insert
- ⑥ Han® B bulkhead mounted housing

1) for Han® B EMC housings spacing of  $12.5 \pm 0.7$  mm is necessary as no flange seal is used

## Layout of PCB

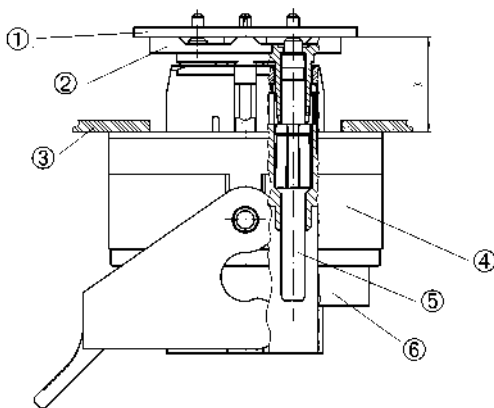
PCB

Dimensions in mm



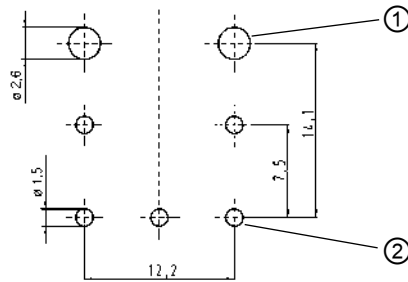
## Assembly situation

X = 16<sup>+1</sup> with signal contact or 16<sup>+2</sup> without signal contact



- ① Printed circuit board (PCB)
- ② PCB adapter
- ③ Switch board panel
- ④ Han-Compact® bulkhead mounted housing
- ⑤ Han® C double contact
- ⑥ Han® Q 4/2 insert

## Layout of PCB

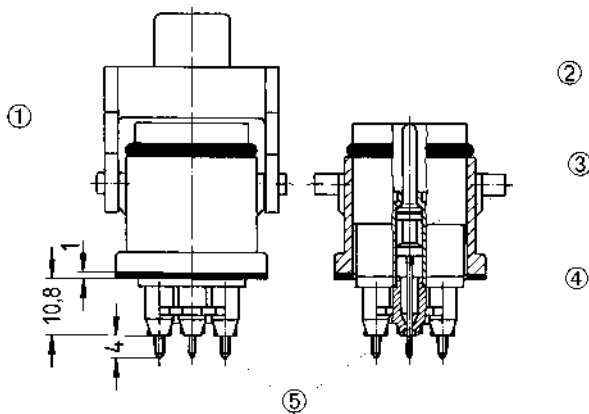


Dimensions in mm

- ① Recommended hole diameter: 2.6 mm
- ② Recommended hole diameter: 1.5 mm

PCB

## Assembly situation

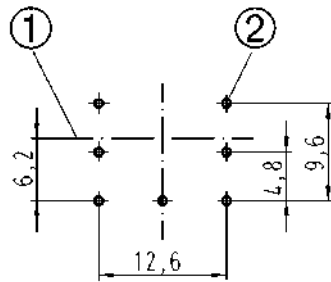


- ① Han® 3 A bulkhead mounting housing
- ② Han® Q 5/0
- ③ Solder contacts
- ④ PCB adapter
- ⑤ Connection to printed circuit board

## Layout of PCB

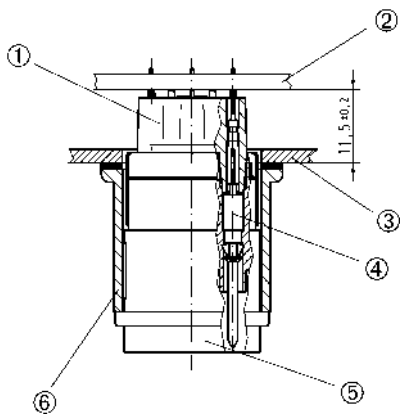
PCB

Dimensions in mm



- ① Median plane of the housing
- ② Recommended hole diameter: 0.8 mm

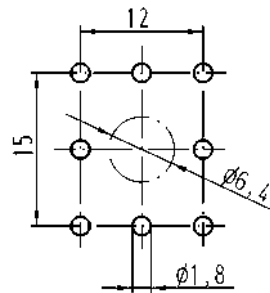
## Assembly situation



- ① PCB adapter
- ② Printed circuit board (PCB)
- ③ Switch board panel
- ④ Han D® double contact
- ⑤ Han® Q 7/0 Insert
- ⑥ Han® 3 A bulkhead mounting housing

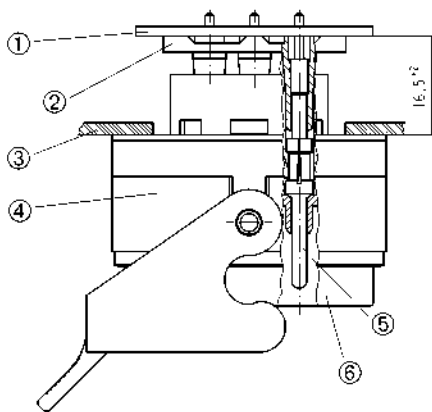
## Layout of PCB

Dimensions in mm



PCB

## Assembly situation

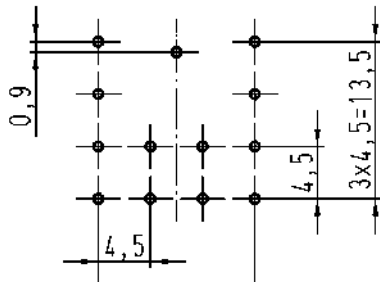


- ① Printed circuit board (PCB)
- ② PCB adapter
- ③ Switch board panel
- ④ Han-Compact<sup>®</sup> bulkhead mounted housing
- ⑤ Han E<sup>®</sup> double contact
- ⑥ Han<sup>®</sup> Q 8/0 Insert

## Layout of PCB

PCB

Dimensions in mm  
Recommended hole diameter: 0.8 mm

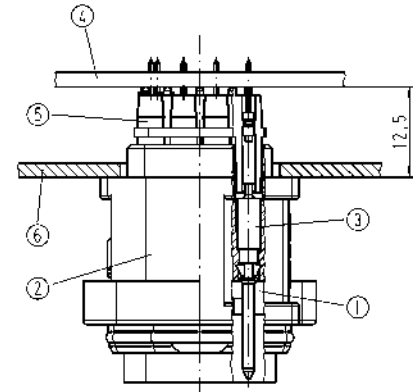
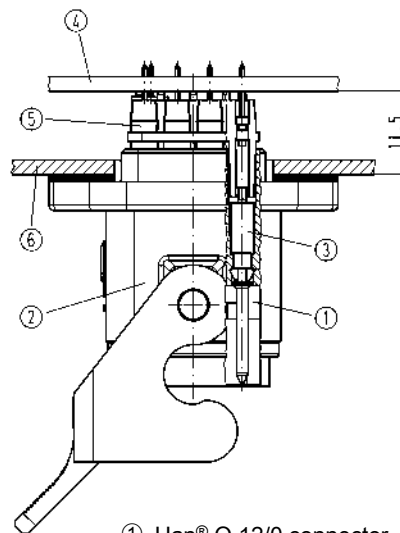
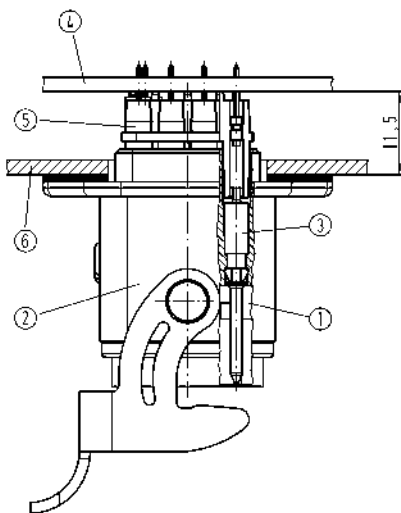


## Assembly situation

Han® 3 A Standard / EMC

Han® 3 A plastic

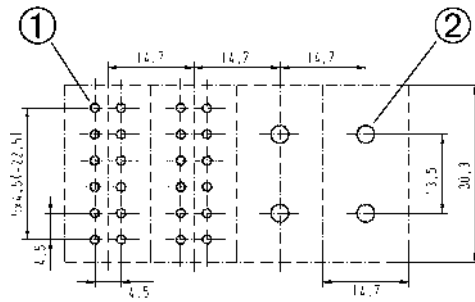
Han® 3 A HPR



- ① Han® Q 12/0 connector
- ② Han® 3 A housing bulkhead mounting
- ③ R15-double contact

- ④ Printed circuit board (PCB)
- ⑤ PCB adapter
- ⑥ Switch board panel

Layout of PCB



Han DD® module

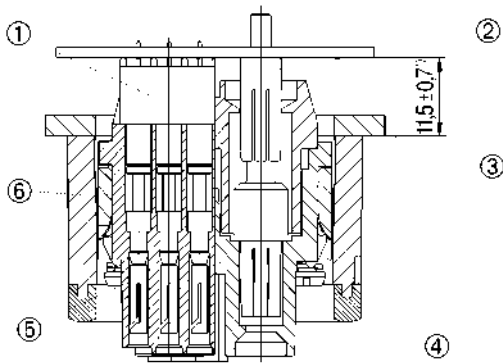
Han® 40 A module

Dimensions in mm

PCB

- ① Recommended hole diameter: 0.8 mm
- ② Recommended hole diameter: 3.2 mm

Assembly situation

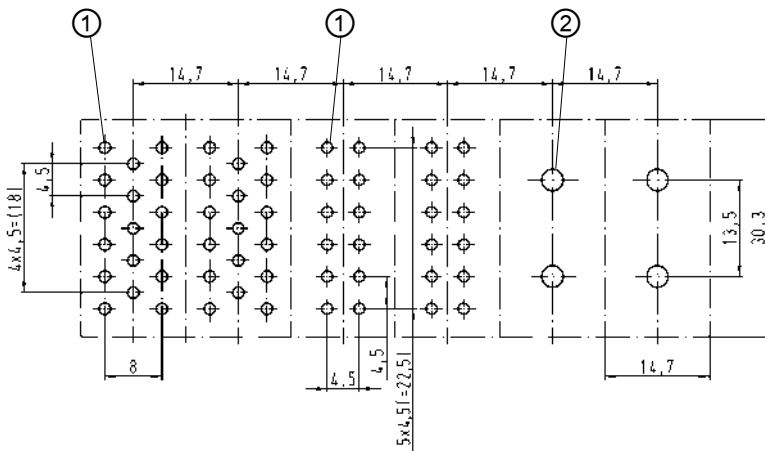


- ① Han DD® PCB-adapter
- ② Han® C solder contact
- ③ Switch board panel
- ④ Module for connection to printed circuit board
- ⑤ Han D® double contact
- ⑥ Han® B bulkhead mounted housing

1) for Han® B EMC housings spacing of 12.5 ± 0.7 mm is necessary as no flange seal is used

## Layout of PCB

Dimensions in mm

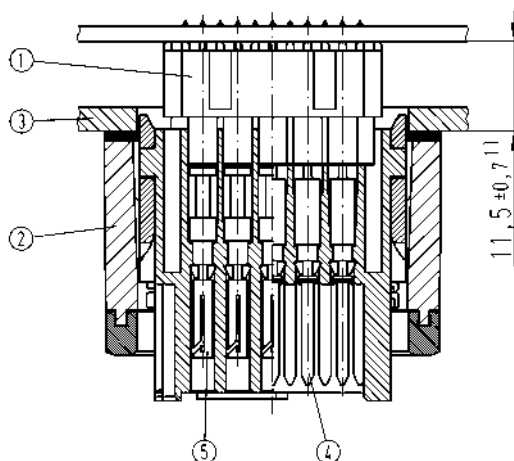


- ① Recommended hole diameter: 0.8 mm
- ② Recommended hole diameter: 3.2 mm

Han® DDD module   Han® DD module   Han® 70 A module

## Assembly situation

Dimensions in mm



- ① Han DDD® PCB adapter 5 pins
- ② Han® B bulkhead mounted housing
- ③ Switch board panel
- ④ Han D® double male contact, 09 15 000 6197
- ⑤ Han D® double female contact, 09 15 000 6291

1) for Han® B EMV hood and housing spacing of  $12.5 \pm 0.7$  mm is necessary as no flange seal is used.

For further information and Han-Modular® frames please refer to chapter 06 (Han-Modular®)



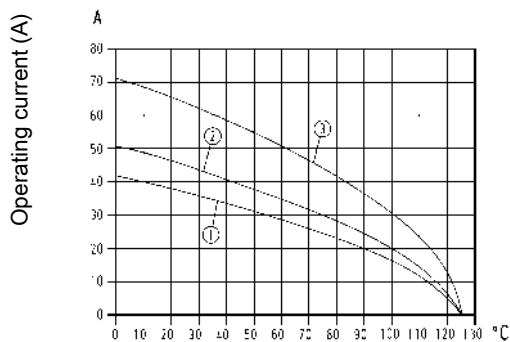
## Features

- Solder free PCB termination
- PCB contact with locking element
- Machine processing
- Flexible in terms of applications
- Practical and easy handling
- Fast assembly to PCB
- Locking directly on the PCB

## Technical characteristics

Contact resistance	≤2 mΩ
Material (locking)	Copper alloy
Surface (locking)	Passivated
Material (contacts)	Copper alloy
RoHS	compliant with exemption

## Derating



Ambient temperature (°C)

- ① Conductor cross-section 4 mm<sup>2</sup>
- ② Conductor cross-section 6 mm<sup>2</sup>
- ③ Conductor cross-section 10 mm<sup>2</sup>

## Specifications and approvals

UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076

PCB

## Details

PCB thickness 1.6 ... 3.2 mm

Clearance and creepage distances have to be considered for the printed circuit board

Finished hole d= 4.4 mm +0.05/-0.04

The new connection of wires to the PCB offers optimized PCB design, combined with outstanding contact qualities.

The Han-Fast® Lock is flexible and allows a fast and simple PCB connection. The PCB has one drilled hole and a pad.

The inner surface of the plated drilled hole serves as the interface. The Han-Fast® Lock is simply inserted into the through-plated PCB hole. The locking pin is pushed in and hence locks the contact into position.

The solder free connection technique is easy to handle and to operate. Maintenance has been made simple with the facility to detach the contact.

Han-Fast® Lock also supports SMD assembly of the PCB.

- Current up to 60 Amps
- Standard drilled hole with pad
- Position independent of connector
- Solder free PCB termination
- Easy locking solution

PCB



Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	Drawing (dimensions in mm)
Han-Fast® Lock, PCB contact, With pin, Pack contents: Single contact Contact surface: Silver plated	1.5 ... 2.5 4 ... 6 10	09 08 000 7122 09 08 000 7123 09 08 000 7124	<p>Stripping length 7.5 mm</p>
Han-Fast® Lock, PCB contact, With pin, Angled, Pack contents: Single contact Contact surface: Silver plated	1.5 ... 2.5 4 ... 6 10	09 08 000 7222 09 08 000 7223 09 08 000 7224	<p>Stripping length 7.5 mm</p>
Han-Fast® Lock, PCB contact, With pin, Pack contents: 2300 pieces on reel Contact surface: Silver plated	1.5 ... 2.5 4 ... 6 10	09 08 000 6122 09 08 000 6123 09 08 000 6124	<p>Stripping length 7.5 mm</p>

## Technical characteristics

Rated current	40 A
Rated voltage	250 V
Rated impulse voltage	4 kV
Pollution degree	3
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Material (insert)	Polycarbonate (PC)
Material (contacts)	Copper alloy

## Technical characteristics

RoHS compliant with exemption

## Specifications and approvals

EN 60664-1  
IEC 61984

Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
Han® C, PCB contact, Contact surface: Silver plated	09 32 000 6295		
PCB adapter, In the Han® C module		09 14 003 2710	

## Features

- Robust design
- Suitable for standard and EMC hoods and housings
- Low wiring costs
- High density of contacts

## Technical characteristics

Rated current	7.5 A
Rated voltage	250 V
Rated impulse voltage	4 kV
Pollution degree	3
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Material (insert)	Polyamide (PA)
Material (contacts)	Copper alloy
RoHS	compliant with exemption

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076

## Details

**Han DD<sup>®</sup> crimp inserts** see chapter Han 02


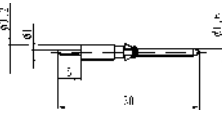
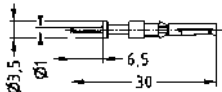

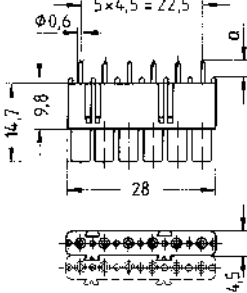

**Modules** see chapter Han 06

**Han<sup>®</sup> B bulkhead mounted housings** see chapter Han 31


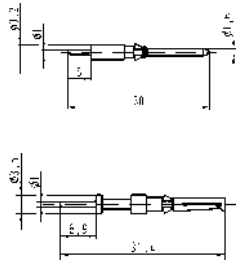

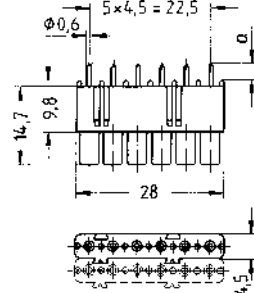

**Crimping tools** see chapter Han 90

# PCB adapter for Han DD<sup>®</sup> crimp inserts



Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
<p>Han D<sup>®</sup>, PCB contact, Contact surface: Silver plated</p> 	09 15 000 6191	09 15 000 6291	 
<p>PCB adapter, In the Han DD<sup>®</sup> crimp insert, In the Han DD<sup>®</sup> module, In the Han<sup>®</sup> DDD module (different electrical data: 7.5 A 160 V 2.5 kV 3)</p>  <p>for PCB's up to 1.6 mm</p>	09 16 000 9905	09 16 000 9905	 <p>09 16 000 9905 a= 2.6 09 16 000 9908 a= 3.4</p>
<p>PCB adapter, In the Han DD<sup>®</sup> crimp insert, In the Han DD<sup>®</sup> module, In the Han<sup>®</sup> DDD module (different electrical data: 7.5 A 160 V 2.5 kV 3)</p>  <p>for PCB's up to 2.4 mm</p>	09 16 000 9908	09 16 000 9908	

PCB

Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
<p>Han D<sup>®</sup>, PCB contact, Contact surface: Silver plated</p> 	09 15 000 6191	09 15 000 6294	
<p>PCB adapter, In the Han DD<sup>®</sup> crimp insert, In the Han DD<sup>®</sup> module, In the Han<sup>®</sup> DDD module (different electrical data: 7.5 A 160 V 2.5 kV 3)</p>  <p>for PCB's up to 1.6 mm</p>	09 16 000 9905	09 16 000 9905	 <p>09 16 000 9905 a= 2.6 09 16 000 9908 a= 3.4</p>
<p>PCB adapter, In the Han DD<sup>®</sup> crimp insert, In the Han DD<sup>®</sup> module, In the Han<sup>®</sup> DDD module (different electrical data: 7.5 A 160 V 2.5 kV 3)</p>  <p>for PCB's up to 2.4 mm</p>	09 16 000 9908	09 16 000 9908	

## Features

- Robust design
- Suitable for standard and EMC hoods and housings
- Low wiring costs
- High density of contacts

## Technical characteristics

Rated current	7.5 A
Rated voltage	160 V
Rated impulse voltage	2.5 kV
Pollution degree	3
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Material (insert)	Polyamide (PA)
Material (contacts)	Copper alloy
RoHS	compliant with exemption

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076

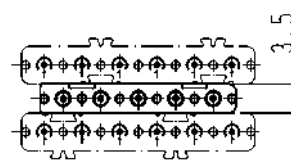
PCB

## Details

**Modules** see chapter Han 06


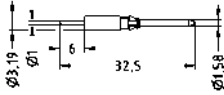
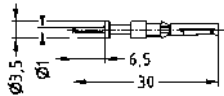

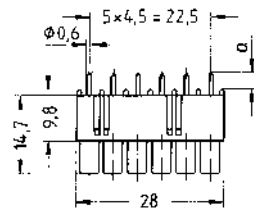



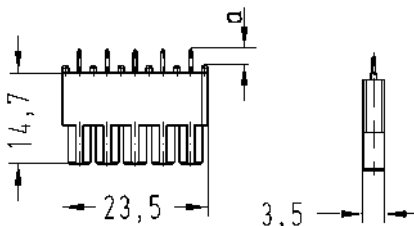

**Han® B bulkhead mounted housings** see chapter Han 31

**Crimping tools** see chapter Han 90



For a 17-pin PCB termination with the Han® DDD module two 6-pin and one 5-pin PCB adapters are necessary.

PCB

Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
Han D®, PCB contact, Contact surface: Silver plated 	09 15 000 6197	09 15 000 6291	 
PCB adapter, In the Han DD® crimp insert, In the Han DD® module, In the Han® DDD module (different electrical data: 7.5 A 160 V 2.5 kV 3) for PCB's up to 1.6 mm 	09 16 000 9905	09 16 000 9905	  09 16 000 9905 a= 2.6 09 16 000 9908 a= 3.4
PCB adapter, In the Han DD® crimp insert, In the Han DD® module, In the Han® DDD module (different electrical data: 7.5 A 160 V 2.5 kV 3) for PCB's up to 2.4 mm 	09 16 000 9908	09 16 000 9908	
PCB adapter, 5-pin, In the Han® DDD module for PCB's up to 1.6 mm 	09 16 000 9915	09 16 000 9915	 09 16 000 9915 a= 2.6 09 16 000 9918 a= 3.4
PCB adapter, 5-pin, In the Han® DDD module for PCB's up to 2.4 mm 	09 16 000 9918	09 16 000 9918	



## Features

- Modular assembly
- Robust design
- Suitable for standard and EMC hoods and housings
- Low wiring costs

## Technical characteristics

Rated current	40 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Material (insert)	Polycarbonate (PC)
Material (contacts)	Copper alloy
RoHS	compliant with exemption

## Specifications and approvals

EN 60664-1  
IEC 61984

## Details

**Hinged frames** see chapter Han 06

Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
Han® C, PCB contact, Contact surface: Silver plated	09 32 000 6295		
PCB adapter, In the Han® 40 A Axial module	09 14 002 2603	09 14 002 2703	

PCB

## Features

- Robust design
- Suitable for standard and EMC hoods and housings
- Low wiring costs
- Counter connector available with screw, crimp or cage clamp termination

## Technical characteristics

Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Material (insert)	Polycarbonate (PC)
Material (contacts)	Copper alloy
RoHS	compliant with exemption

## Specifications and approvals


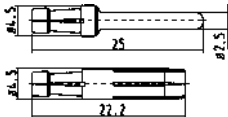

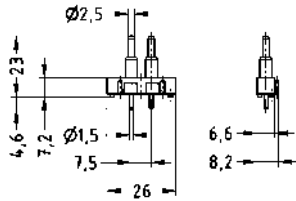
EN 60664-1  
IEC 61984

## Details

**Han E® crimp inserts** see chapter Han 03

**Hoods/Housings** see chapter Han 31

**Crimping tools** see chapter Han 90

Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
Han E®, PCB contact, Contact surface: Silver plated 	09 33 000 6180	09 33 000 6280	
PCB adapter, In the Han E® crimp insert 	09 33 000 9996	09 33 000 9996	

Number of contacts

# 40

16 A 500 V 6 kV 3

PCB

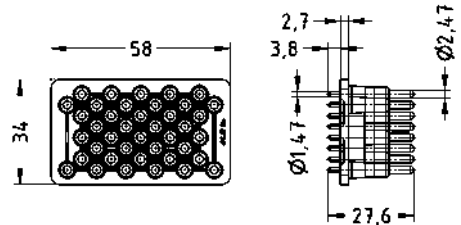
## Technical characteristics

Number of contacts	40
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV

## Technical characteristics

Pollution degree	3
Limiting temperature	-40 ... +125 °C
Material (insert)	Polycarbonate (PC)
Material (contacts)	Copper alloy
RoHS	compliant with exemption

Identification	Size	Part number		Drawing (dimensions in mm)
		Male	Female	
PCB adapter, In the Han® 40 EEE crimp insert, Contact surface: Silver plated	16 B	09 33 000 9880	09 33 000 9880	



## Features

- Robust design
- Low wiring costs
- High density of contacts
- Suitable for Han-Compact® hoods and housings

## Technical characteristics

Rated current	30 A
Rated voltage conductor-earth	400 V
Rated voltage conductor-conductor	690 V
Rated impulse voltage	6 kV
Pollution degree	2
Rated current (signal)	7.5 A
Rated voltage (signal)	250 V
Rated impulse voltage (signal)	4 kV
Pollution degree (signal)	2
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP65
Type rating acc. to UL 50 / UL 50E	4, 4X, 12
Material (insert)	Liquid crystal polymer (LCP)
Material (hood/housing)	Polycarbonate (PC)
Colour (hood/housing)	RAL 9005 (jet black)
Material (seal)	NBR
Material (locking)	Polyamide (PA)
Colour (locking)	RAL 9005 (jet black)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
Material flammability class acc. to UL 94 (locking levers)	V-0
RoHS	compliant with exemption, compliant

## Specifications and approvals


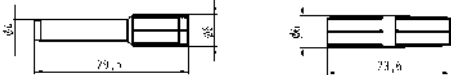

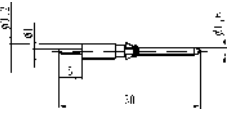

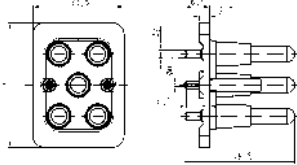
EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
DNV GL



## Details

**Han® Q inserts** see chapter Han 13

**Crimping tools** see chapter Han 90

Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
Han® C, PCB contact, Contact surface: Silver plated 	09 32 000 6180	09 32 000 6280	
Han D®, PCB contact, Contact surface: Silver plated 	09 15 000 6191	09 15 000 6293	
PCB adapter, In the Han® Q 4/2  for PCB's up to 2.4 mm 	09 12 006 9901	09 12 006 9901	

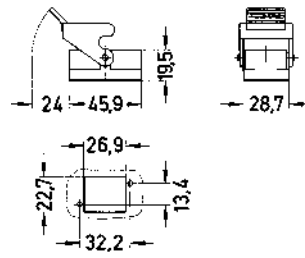
Hoods/housings for industrial applications  
Single locking lever

PCB

Identification	Part number	Drawing (dimensions in mm)
----------------	-------------	----------------------------

Han-Compact®,  
Bulkhead mounted housing,  
Straight,  
IP65

09 12 008 0327



## Features

- Robust design
- Suitable only for EMC housings size Han® 3 A
- Additional robust and secure PE-connection between housing and PCB

## Technical characteristics

Rated current	10 A
Rated voltage conductor-earth	230 V
Rated voltage conductor-conductor	400 V
Rated impulse voltage	4 kV
Pollution degree	3
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP44, IP65 / IP67, with seal screw 09 20 000 9918
Type rating acc. to UL 50 / UL 50E	12
Material (insert)	Polycarbonate (PC)
Material (hood/housing)	Zinc die-cast
Surface (hood/housing)	Uncoated
Colour (hood/housing)	Unpainted
Material (seal)	PTFE
Material (locking)	Steel
Surface (locking)	Zinc plated
Material (contacts)	Copper alloy
RoHS	compliant with exemption, compliant

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
DNV GL



## Details

**Han® Q inserts** see chapter Han 13

**Crimping tools** see chapter Han 90


PCB

Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
Han E®, PCB contact, Contact surface: Silver plated	09 33 000 6195	09 33 000 6295	
PCB adapter, 5-pin, In the Han® Q 5/0  for PCB's up to 2.4 mm	09 12 000 9905	09 12 000 9905	<p>Adapter PE contact panel</p>



Hoods/Housings for higher EMC requirements  
Single locking lever

PCB

Identification	Part number	Drawing (dimensions in mm)
<p>Han® EMC, Bulkhead mounted housing, Straight, for PCB termination with Han® Q 5/0, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p> 	<p>09 62 003 0304</p>	

## Features

- Robust design
- Suitable for standard and EMC hoods and housings
- High density of contacts

## Technical characteristics

Rated current	7.5 A
Rated voltage	250 V
Rated impulse voltage	4 kV
Pollution degree	3
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP44, IP65 / IP67, with seal screw 09 20 000 9918
Type rating acc. to UL 50 / UL 50E	12
Material (insert)	Polycarbonate (PC)
Material (hood/housing)	Zinc die-cast
Surface (hood/housing)	Powder-coated
Colour (hood/housing)	RAL 7037 (dust grey)
Material (seal)	NBR
Material (locking)	Steel
Surface (locking)	Zinc plated
Material (contacts)	Copper alloy
RoHS	compliant with exemption

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
DNV GL



## Details


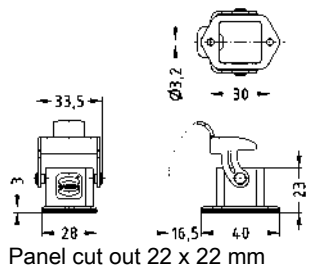
**Han® Q inserts** see chapter Han 13

**Crimping tools** see chapter Han 90

Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
Han D®, PCB contact, Contact surface: Silver plated	09 15 000 6190	09 15 000 6290	
PCB adapter, In the Han® Q 7/0  for PCB's up to 2.4 mm		09 12 000 9908	

Standard Hoods/housings for industrial applications  
Single locking lever

PCB

Identification	Part number	Drawing (dimensions in mm)
<p>Han A®, Bulkhead mounted housing, Straight, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p> 	<p>09 20 003 0301</p>	 <p>Panel cut out 22 x 22 mm</p>

## Features

- Robust design
- Suitable for Han-Compact® hoods and housings
- Low wiring costs
- High density of contacts

## Technical characteristics

Rated current	16 A
Rated voltage conductor-earth	230 V
Rated voltage conductor-conductor	400 V
Rated impulse voltage	4 kV
Pollution degree	2
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP65
Type rating acc. to UL 50 / UL 50E	4, 4X, 12
Material (insert)	Liquid crystal polymer (LCP)
Material (hood/housing)	Polycarbonate (PC)
Colour (hood/housing)	RAL 9005 (jet black)
Material (seal)	NBR
Material (locking)	Polyamide (PA)
Colour (locking)	RAL 9005 (jet black)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
Material flammability class acc. to UL 94 (locking levers)	V-0
RoHS	compliant with exemption, compliant

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
DNV GL


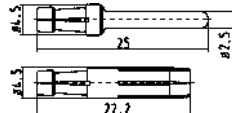

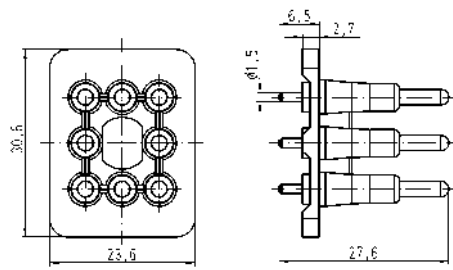


## Details

**Han® Q inserts** see chapter Han 13


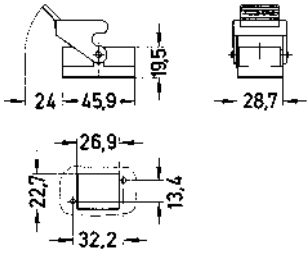
**Crimping tools** see chapter Han 90

PCB

Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
Han E®, PCB contact, Contact surface: Silver plated 	09 33 000 6180	09 33 000 6280	
PCB adapter, In the Han® Q 8/0  for PCB's up to 1.6 mm 	09 12 008 9901		

Hoods/housings for industrial applications  
Single locking lever

PCB

Identification	Part number	Drawing (dimensions in mm)
<p>Han-Compact®, Bulkhead mounted housing, Straight, IP65</p> 	<p>09 12 008 0327</p>	

## Features

- Robust design
- Suitable for standard and EMC hoods and housings
- High density of contacts

## Technical characteristics

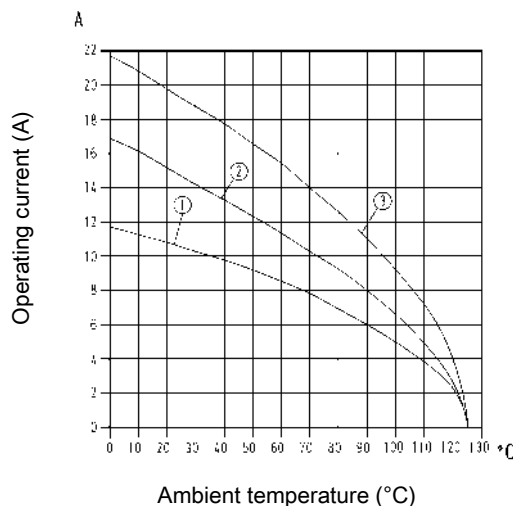
Number of contacts	12
Rated current	7.5 A
Rated voltage	250 V
Rated impulse voltage	4 kV
Pollution degree	3
Insulation resistance	>10 <sup>10</sup> Ω
Contact resistance	≤3 mΩ
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 0.75 mm<sup>2</sup>
- ② Conductor cross-section 1.5 mm<sup>2</sup>
- ③ Conductor cross-section 2.5 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
 IEC 61984  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL

## Details

**Crimping tools** see chapter Han 90


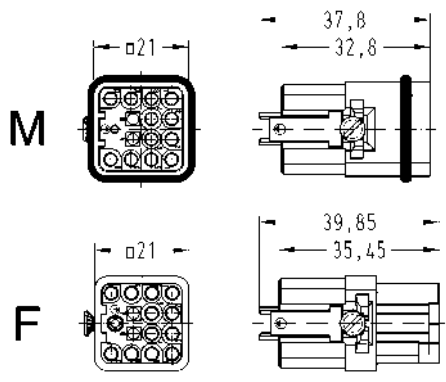

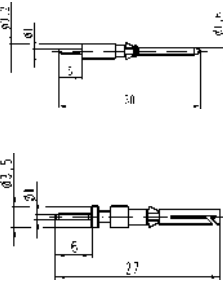
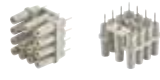
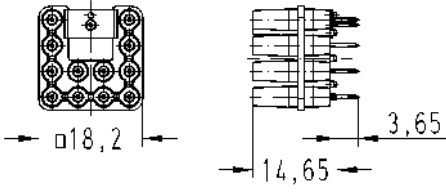


Number of contacts

12+

7.5 A 250 V 4 kV 3

PCB

Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
<p>Han® Q, for PCB adapter, Solder termination</p>  <p>Please order contacts separately.</p>	09 12 012 3002	09 12 012 3102	
<p>Han D®, PCB contact, Contact surface: Silver plated</p> 	09 15 000 6191	09 15 000 6297	
<p>PCB adapter, In the Han® Q 12/0</p>  <p>for PCB's up to 2.4 mm</p>		09 12 012 9901	

Contents	Page
Inserts for Han- <i>Yellock</i> ® 10 .....	<b>Han 25.7</b>
Inserts for adapter frames .....	<b>Han 25.9</b>
Quick Lock module .....	<b>Han 25.11</b>
Crimp module .....	<b>Han 25.13</b>
Multiplier block.....	<b>Han 25.15</b>
Multiplier .....	<b>Han 25.17</b>
Adapter frames.....	<b>Han 25.20</b>
Monoblocks .....	<b>Han 25.23</b>
Han- <i>Yellock</i> ® 10 hoods/housings .....	<b>Han 25.26</b>
Han- <i>Yellock</i> ® 30 hoods/housings .....	<b>Han 25.29</b>
Han- <i>Yellock</i> ® 60 hoods/housings .....	<b>Han 25.36</b>
Accessories .....	<b>Han 25.43</b>

## Description of the Han-Yellock® system

### The Han-Yellock® - a special Han® connector

Han-Yellock® is a new product series which retains the core functionality but differs significantly from current size and shape formats. The approach of this series makes many new functions possible, for example:

- An internal, latched locking mechanism on the hood
- Multiplies the potentials in the connector with Han-Yellock® modules
- Usage of Han-Modular® modules with adapter frames
- Insulators can snap into the front or back walls of the housing
- Protected Earth contact (PE) in crimp or Quick Lock termination

These new technical features encourage sustained and effective improvements:

when purchasing products –

- Less article numbers and less inventory,

when planning for the electrical and mechanical layout –

- Less wiring work within a machine,

during the work flow –

- Less steps in the work flow and quicker assembly,

and during the after-sales stage –

- Reduced down times because of the latched locking mechanism and maintenance-friendly design



Assembly details

### Design overview

The Han-Yellock® interface consists of a housing, bulkhead mounting, on the housing side and a carrier hood with cover on the cable side.

Han-Yellock® offers the following features when assembling components:

- Han-Yellock® modules require only male crimp contacts.
- The PE is contacted on the housing; it can be connected with crimp and/or Quick Lock contacts.
- The Han-Yellock® hoods/housing are not plug-compatible with all other Han® hood/housing series.

The Han-Yellock® system can be used with a variety of insulators and contact inserts in order to establish an interface.

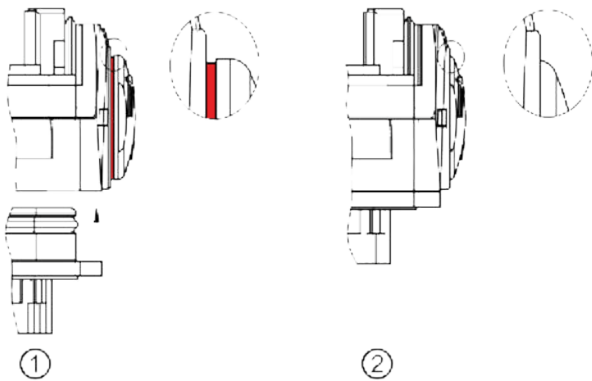
### The Locking

The locking ability is a key function of the Han-Yellock®. The function makes connections and disconnections safe, simple and quick – even under harsh industrial conditions.

Main advantages include:

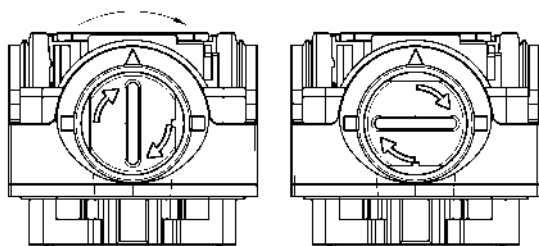
- Easy handling
- Resistance to vibrations and shock
- Protected against accidental opening
- Compact, space-saving design

Han-Yellock® features a patented internal locking mechanism. The locking takes place as the cable and device sides are simply joined together. A red ring around the perimeter of the push button will be visible if the housing halves do not snap together properly. This ring disappears as soon as the internally protected stainless steel springs snap into place.



① unlocked  
② locked

This press-button locking also features an integrated blocking function. The locking mechanism can be locked by rotating the button 90°. It is then no longer possible to open the connector.



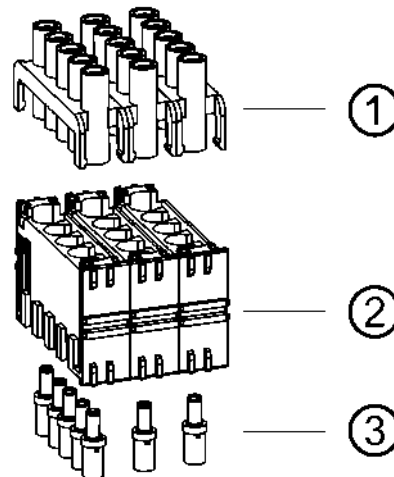
„open“                      „blocked“

The press button can be set back to its visually open position only after the button is turned back 90°. It is then possible to release the two housing halves by pressing the snap-in button.

This feature provides an elegant mechanism for preventing an accidental opening of the connector – and no additional components are needed for it.

### Han-Yellock® modules

This new product series enables an improved approach and strategy for electrical planning and procurement. For assembling the Han-Yellock® connector only male crimp contacts are needed. The conduct between the two male contacts is made by multipliers.



① multiplier  
② Han-Yellock® module  
③ Han-Yellock® crimp contacts

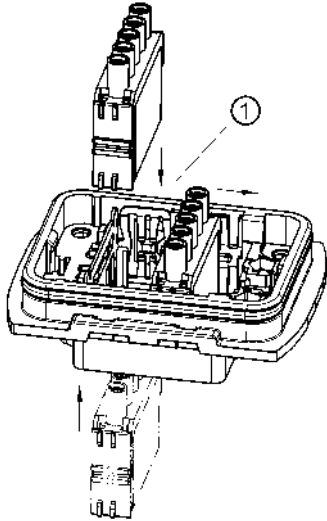
This concept allows a 1:1 wire to wire arrangement and in addition the use of bridges. Two to five contacts can be arranged.

It does not matter if the bridge attachment is inserted on the cable side or the housing side of the connector.

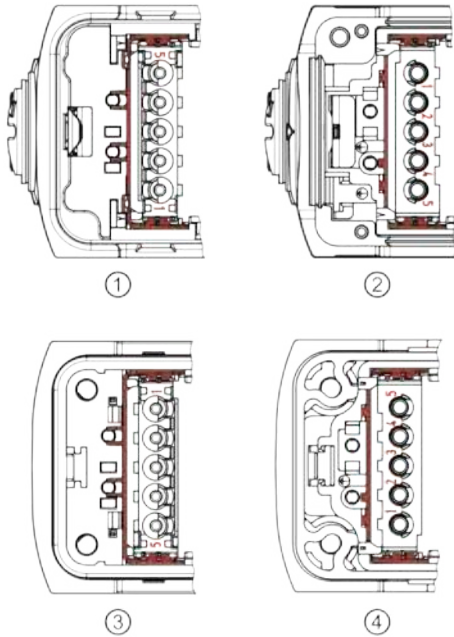
In the past, terminals blocks have been responsible for the function of multiplying potentials. But now this function has been integrated into the connector for a quick, compact and easy-to-service solution.

Inserting the module into the hoods/housing

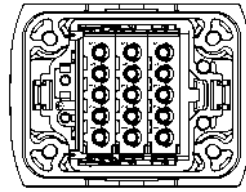
- The Han-Yellock® module should only be inserted into the „A“ plug-in position in the metal clamp.



- ① plug-in position „A“
- The illustration shows the orientation of the module (see arrangement of contacts 1 ... 5).

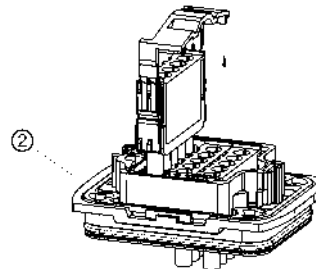
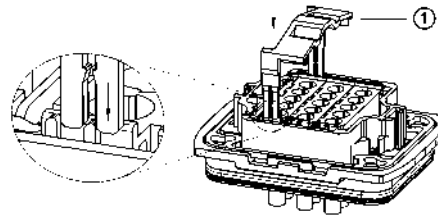


- ① Carrier hood, mating side
- ② Carrier hood, connection side
- ③ Housing, bulkhead mounting, mating side
- ④ Housing, bulkhead mounting, connection side
- A distinct click can be heard when the module snaps into position. It is then pushed along the rail to its final position. The plug-in slots must always be completely filled.

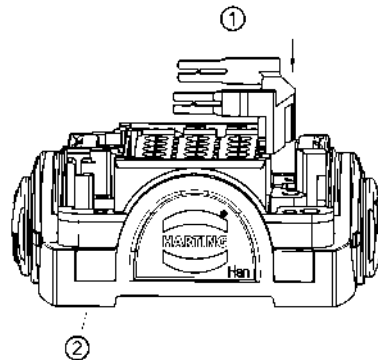


Disassembling the Han-Yellock® module

- The removal tool (part no. 11 99 000 0001) is required to take out the module.
- The following illustration shows how to insert the removal tool into the metal clamp. The tool should then be pressed down until it reaches the end stop.
- The tool is then pulled back and the module comes out of the housing.
- The removal can be made from the connection side as well as from the mating side.



- ① removal tool
  - ② housing, bulkhead mounting
- The process is identical for both housings, bulkhead mounting, and carrier hoods.  
The removal tool can be stored on the carrier hood:



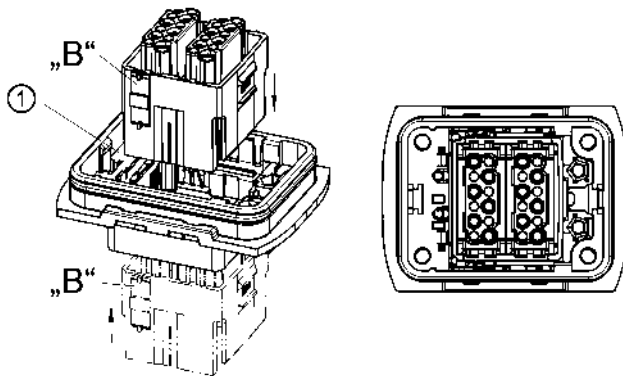
- ① removal tool
- ② carrier hood

## Han-Yellock® adapter frame

Han-Modular® series interfaces can be established using the Han-Yellock® adapter frame. The connection is based on a male/female contact arrangement.

Inserting the adapter frame in the housing:

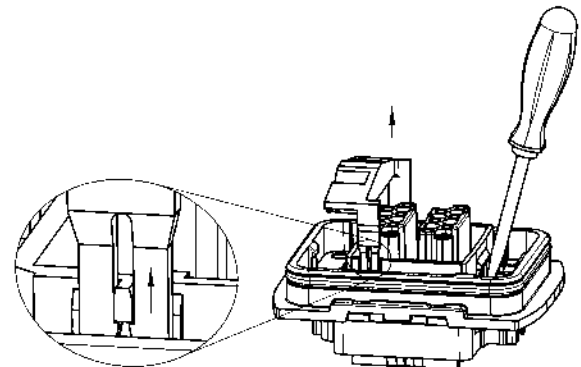
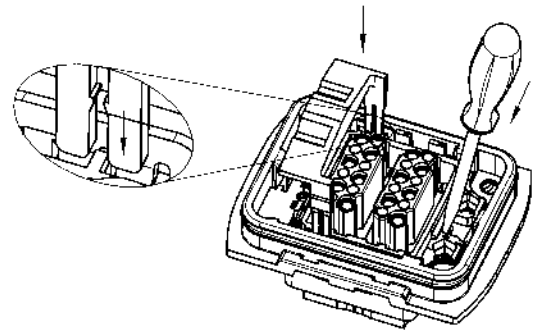
- The adapter frame can be snapped into the housing, bulkhead mounting, on the termination side and the mating side (refer to the illustration).
- The lateral plastic tabs („B“) are pressed into the metal clamps on the housing.
- The adapter frame then snaps in with a distinctly audible click.



① metal clamp

Removal the adapter frame:

- The removal tool part no. 11 99 000 0001 is required for disassembly.
- The removal tool is inserted into the metal clamp and pressed down as shown in the following illustration. A screwdriver need also be placed into the notch in the housing.
- The removal tool should then be pulled outwards to remove the adapter frame from the housing.
- The removal can be made from the termination side as well as from the mating side.
- The process is identical for both housings, bulkhead mounting, and carrier hoods.



## Han-Yellock® Protection covers

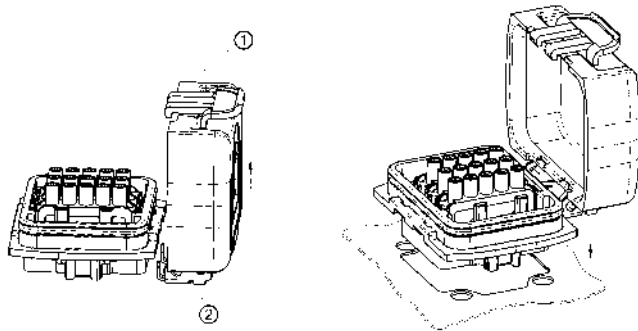
### Protection cover function

To protect the insert against dust and water it is possible to use a Han-Yellock® protection cover.

The protection cover comes with a metal bearing pedestal and can be installed during initial or retrofit installation.

The Han-Yellock® design offer the possibility to snap in the pedestal either on the left or on the right side of the housing.

The direction of the cover movement can flip without turning the housing and inserts.



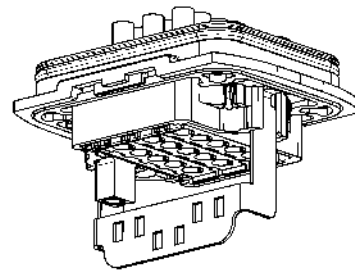
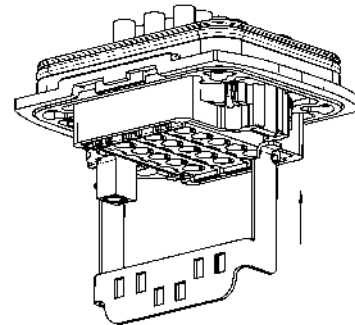
- ① cover
- ② bearing pedestal













## Han-Yellock® Ground terminal

### Ground terminal assembly

On the housing side ground terminals can be used.

After placing the frame deeply inside the housing slots the housing will be fixed to the panel leading to solid mounting of the complete set.







Series	Han® 3 A	Han® 3 A Quick Lock	Han® 3 A Quick Lock	Han® 4 A
Number of contacts	3 + ⊕	3 + ⊕	3 + ⊕	4 + ⊕
Termination	Screw terminal 	Quick Lock termination 	Quick Lock termination 	Screw terminal 
Rated current	10 A	10 A	10 A	10 A
Rated voltage	230 / 400 V	230 / 400 V	230 / 400 V	230 / 400 V
Wire gauge	0.75 ... 1.5 mm <sup>2</sup>	0.5 ... 2.5 mm <sup>2</sup>	0.25 ... 1.5 mm <sup>2</sup>	0.75 ... 1.5 mm <sup>2</sup>
Male insert (M)	09 20 003 2611	09 20 003 2633	09 20 003 2634	09 20 004 2611
Female insert (F)	09 20 003 2711	09 20 003 2733	09 20 003 2734	09 20 004 2711
Series	Han® 4 A Quick Lock	Han® 4 A Quick Lock	Han® 8 D	Han® 8 D Quick Lock
Number of contacts	4 + ⊕	4 + ⊕	8	8
Termination	Quick Lock termination 	Quick Lock termination 	Crimp terminal 	Quick Lock termination 
Rated current	10 A	10 A	10 A	10 A
Rated voltage	230 / 400 V	230 / 400 V	~ 50 V / - 120 V	~ 50 V / - 120 V
Wire gauge	0.5 ... 2.5 mm <sup>2</sup>	0.25 ... 1.5 mm <sup>2</sup>	0.14 ... 2.5 mm <sup>2</sup>	0.25 ... 1.5 mm <sup>2</sup>
Male insert (M)	09 20 004 2633	09 20 004 2634	09 36 008 3001	09 36 008 2632
Female insert (F)	09 20 004 2733	09 20 004 2734	09 36 008 3101	09 36 008 2732
Series	Han® Q 2/0	Han® Q 2/0	Han® Q 2/0	Han® Q 2/0
Number of contacts	2 + ⊕	2 + ⊕	2 + ⊕	2 + ⊕
Termination	Axial screw terminal 	Axial screw terminal 	Crimp terminal 	Axial screw terminal 
Rated current	40 A	40 A	40 A	40 A
Rated voltage	400 V	400 V	400 V	830 V
Wire gauge	2.5 ... 6 mm <sup>2</sup>	4 ... 10 mm <sup>2</sup>	1.5 ... 10 mm <sup>2</sup>	2.5 ... 6 mm <sup>2</sup>
Male insert (M)	09 12 002 2653	09 12 002 2651	09 12 002 3051	09 12 002 2654
Female insert (F)	09 12 002 2753	09 12 002 2751	09 12 002 3151	09 12 002 2754



# Inserts for Han-Yellock® 10













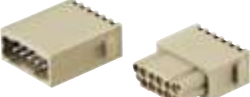
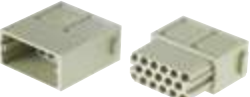


Series	Han® Q 2/0	Han® Q 2/0	Han® Q 3/0	Han® Q 5/0
Number of contacts	2 + ⊕	2 + ⊕	3 + ⊕	5 + ⊕
Termination	Axial screw terminal 	Crimp terminal 	Crimp terminal	Crimp terminal 
Rated current	40 A	40 A	40 A	16 A
Rated voltage	830 V	830 V	400 V	230 / 400 V
Wire gauge	4 ... 10 mm <sup>2</sup>	1.5 ... 10 mm <sup>2</sup>	1.5 ... 10 mm <sup>2</sup>	0.14 ... 2.5 mm <sup>2</sup>
Male insert (M)	09 12 002 2652	09 12 002 3052	09 12 003 3051	09 12 005 3001
Female insert (F)	09 12 002 2752	09 12 002 3152	09 12 003 3151	09 12 005 3101
Series	Han® Q 5/0 Quick Lock	Han® Q 7/0	Han® Q 12/0	
Number of contacts	5 + ⊕	7 + ⊕	12 + ⊕	
Termination	Quick Lock termination 	Crimp terminal 	Crimp termination/ Quick Lock termination 	
Rated current	16 A	10 A	10 A	
Rated voltage	230 / 400 V	400 V	400 V	
Wire gauge	0.5 ... 2.5 mm <sup>2</sup>	0.14 ... 2.5 mm <sup>2</sup>	0.14 ... 2.5 mm <sup>2</sup>	
Male insert (M)	09 12 005 2633	09 12 007 3001	09 12 012 3001	
Female insert (F)	09 12 005 2733	09 12 007 3101	09 12 012 3101	
Series	Han-Brid® RJ45 C	Han-Brid® RJ45 C	Han-Brid® RJ45 C	Han-Brid® RJ45 C
Number of contacts	2 / 8	2 / 8	2 / 8	2 / 8
Termination	Crimp terminal / RJ45 	Crimp terminal / RJ45 	Crimp terminal / RJ45 	Crimp terminal / RJ45 
Rated current	10 A	10 A	10 A	10 A
Rated voltage	24 V	24 V	24 V	24 V
Wire gauge	0.14 ... 2.5 mm <sup>2</sup>	0.14 ... 2.5 mm <sup>2</sup>	0.14 ... 2.5 mm <sup>2</sup>	0.14 ... 2.5 mm <sup>2</sup>
Male insert (M)	09 12 003 3021	09 12 003 3031		
Female insert (F)			09 12 003 2774	09 12 003 2776

Han  
25  
·  
8

By using in Han-Yellock® 10 hoods/housings the seal on the insert has to be removed.

# Inserts for adapter frames












Series	Han® CC Protected module	Han® CD module	Han E® module	Han® E Quick Lock module
Number of contacts	4	3	6	6
Modules	Crimp terminal 	Crimp terminal 	Crimp terminal 	Quick Lock termination 
Rated current	40 A	40 A	16 A	16 A
Rated voltage	830 V	830 V	500 V	500 V
Wire gauge	1.5 ... 6 mm <sup>2</sup>	1.5 ... 6 mm <sup>2</sup>	0.14 ... 4 mm <sup>2</sup>	0.5 ... 2.5 mm <sup>2</sup>
Series	Han® EE module	Han® EE Quick Lock module	Han E® Protected module	Han® EEE module
Number of contacts	8	8	6	20
Modules	Crimp terminal 	Quick Lock termination 	Crimp terminal 	Crimp terminal 
Rated current	16 A	16 A	16 A	16 A
Rated voltage	400 V	400 V	830 V	500 V
Wire gauge	0.14 ... 4 mm <sup>2</sup>	0.5 ... 2.5 mm <sup>2</sup>	0.14 ... 4 mm <sup>2</sup>	0.14 ... 4 mm <sup>2</sup>
Series	Han® ES module	Han DD® module	Han DD® Quick Lock module	Han® DDD module
Number of contacts	5	12	12	17
Modules	Cage-clamp terminal 	Crimp terminal 	Quick Lock termination 	Crimp terminal 
Rated current	16 A	10 A	10 A	10 A
Rated voltage	400 V	250 V	250 V	160 V
Wire gauge	0.14 ... 2.5 mm <sup>2</sup>	0.14 ... 2.5 mm <sup>2</sup>	0.25 ... 1.5 mm <sup>2</sup>	0.14 ... 2.5 mm <sup>2</sup>
Series	Han® High Density module	Han® D-Sub module		
Number of contacts	25	9		
Modules	Crimp terminal 	Crimp terminal 		
Rated current	4 A	5 A		
Rated voltage	50 V	50 V		
Wire gauge	0.08 ... 0.52 mm <sup>2</sup>	0.08 ... 0.52 mm <sup>2</sup>		

Yellow

# Inserts for adapter frames



Series	Han® USB module	Han® GigaBit module		
Number of contacts	4	8		
Modules	USB 2.0	Ethernet Cat. 6		
				

Series	Han-Quintax® module				Han® Multi module
Number of contacts	2				
Modules					
Contacts	Han-Quintax® contact 4 + shielding 	High Density Quintax contact 8 + shielding 	Han D® Coax contact 75 Ω 1 + shielding  75 Ω	Han E® Coax contact 50 Ω 1 + shielding  50 Ω	Coaxial contact  50 Ω RG 174 75 Ω RG 179 50 Ω RG 58

## Features

- Snap-in assembly from mating side and from termination side
- Bus bar within bridge attachments
- Finger safe design
- Fast and tool-less assembly
- Mating compatible to the crimp version

## Technical characteristics

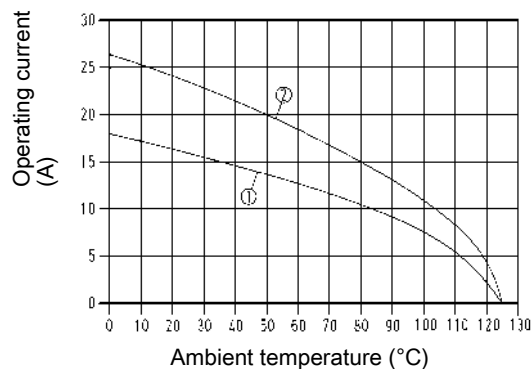
Number of contacts	5
Rated current	20 A, 10 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 2 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption, compliant

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



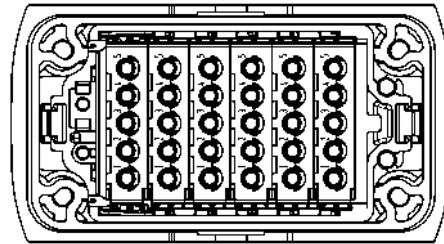
- ① Conductor cross-section 1.5 mm<sup>2</sup>
- ② Conductor cross-section 2.5 mm<sup>2</sup>  
for connector with 3 Han-Yellock® modules, fully loaded (multiplier 1:1)

## Specifications and approvals

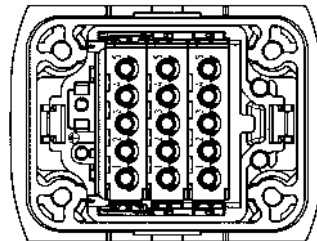
EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
DNV GL

Yellock

## Details



Placement for Han-Yellock® 60 with 6 Han-Yellock® modules



Placement for Han-Yellock® 30 with 3 Han-Yellock® modules

# Quick Lock module


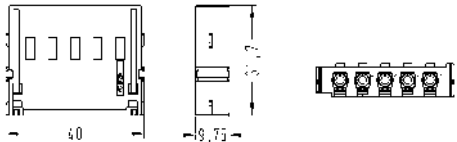



Number of contacts

# 5

20 A 500 V 6 kV 3

Yellowlock

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number Male	Drawing (dimensions in mm)
<p>Han-<i>Yellowlock</i><sup>®</sup>, Module, Han-Quick Lock<sup>®</sup> termination, 20 A Contact surface: Silver plated</p>  <p>Blue slide</p>	0.5 ... 2.5	11 05 105 2633	 <p>Stripping length 10 mm</p>
<p>Han-<i>Yellowlock</i><sup>®</sup>, Module, Han-Quick Lock<sup>®</sup> termination, 10 A Contact surface: Silver plated</p>  <p>Black slide</p>	0.25 ... 1.5	11 05 105 2634	

## Features

- Snap-in assembly from mating side and from termination side
- Wiring with male contacts only
- Bus bar within bridge attachments
- Finger safe design
- Fast and tool-less assembly

## Technical characteristics

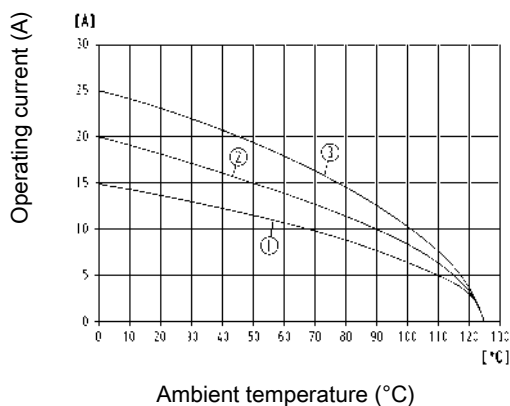
Number of contacts	5
Rated current	20 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 2 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey), RAL 5015 (sky blue), RAL 3000 (flame red)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 1.5 mm<sup>2</sup>
- ② Conductor cross-section 2.5 mm<sup>2</sup>
- ③ Conductor cross-section 4 mm<sup>2</sup>  
for connector with 3 Han-Yellock® modules, fully loaded (multiplier 1:1)

## Specifications and approvals

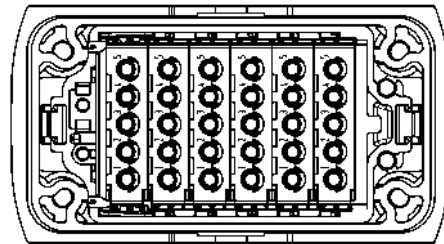
EN 60664-1  
IEC 61984  
DNV GL

## Details

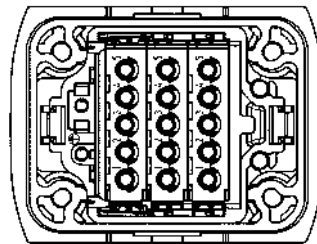
**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.



Placement for Han-Yellock® 60 with 6 Han-Yellock® modules



Placement for Han-Yellock® 30 with 3 Han-Yellock® modules

Number of contacts

# 5

20 A 500 V 6 kV 3

Yellowlock

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number Male	Drawing (dimensions in mm)																		
Han- <i>Yellowlock</i> <sup>®</sup> , Module, Crimp termination, Contact surface: Silver plated	0.14 ... 4 0.14 ... 4 0.14 ... 4	11 05 105 3001 11 05 105 3011 11 05 105 3012	  11 05 105 3001 Grey 11 05 105 3011 Blue 11 05 105 3012 Red																		
Han- <i>Yellowlock</i> <sup>®</sup> , Crimp contact, Contact surface: Silver plated	0.14 ... 0.37 0.5 0.75 1 1.5 2.5 3 4	11 05 000 6101 11 05 000 6102 11 05 000 6103 11 05 000 6104 11 05 000 6105 11 05 000 6106 11 05 000 6107 11 05 000 6108																			
Han- <i>Yellowlock</i> <sup>®</sup> , Crimp contact, Contact surface: Gold plated	0.14 ... 0.37 0.5 0.75 1 1.5 2.5 3 4	11 05 000 6121 11 05 000 6122 11 05 000 6123 11 05 000 6124 11 05 000 6125 11 05 000 6126 11 05 000 6127 11 05 000 6128	<table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>6.5 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>6.5 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>6.5 mm</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>6.5 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>6.5 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>6.5 mm</td> </tr> <tr> <td>3 mm<sup>2</sup> AWG 12</td> <td>6.5 mm</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>6.5 mm</td> </tr> </tbody> </table> Removal tool 09 99 000 0319 See chapter Han 90	Conductor cross-section	Stripping length	0.14-0.37 mm <sup>2</sup> AWG 26-22	6.5 mm	0.5 mm <sup>2</sup> AWG 20	6.5 mm	0.75 mm <sup>2</sup> AWG 18	6.5 mm	1 mm <sup>2</sup> AWG 18	6.5 mm	1.5 mm <sup>2</sup> AWG 16	6.5 mm	2.5 mm <sup>2</sup> AWG 14	6.5 mm	3 mm <sup>2</sup> AWG 12	6.5 mm	4 mm <sup>2</sup> AWG 12	6.5 mm
Conductor cross-section	Stripping length																				
0.14-0.37 mm <sup>2</sup> AWG 26-22	6.5 mm																				
0.5 mm <sup>2</sup> AWG 20	6.5 mm																				
0.75 mm <sup>2</sup> AWG 18	6.5 mm																				
1 mm <sup>2</sup> AWG 18	6.5 mm																				
1.5 mm <sup>2</sup> AWG 16	6.5 mm																				
2.5 mm <sup>2</sup> AWG 14	6.5 mm																				
3 mm <sup>2</sup> AWG 12	6.5 mm																				
4 mm <sup>2</sup> AWG 12	6.5 mm																				

## Features

- Up to 3 Han-Yellock® multipliers can be used in one multiplier bloc
- By using the multipliers, the potential of one up to five contacts can be multiplied
- Needs 3 places in the Han-Modular® Docking frame and Hinged frame
- Wiring with male contacts only

## Technical characteristics

Number of contacts	15
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 1 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Specifications and approvals

EN 60664-1  
IEC 61984

Yellock

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.



# Multiplier block


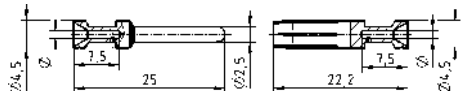



Number of contacts

# 15

16 A 500 V 6 kV 3



Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han- <i>Yellock</i> <sup>®</sup> , Multiplier block, Crimp termination   Please order crimp contacts separately.	0.14 ... 4	09 14 015 3001	09 14 015 3101	
Han E <sup>®</sup> , Crimp contact, Contact surface: Silver plated  	0.14 ... 0.37 0.5 0.75 1 1.5 2.5 3 4	09 33 000 6127 09 33 000 6121 09 33 000 6114 09 33 000 6105 09 33 000 6104 09 33 000 6102 09 33 000 6106 09 33 000 6107		

## Features

- Snap-in assembly from mating side and from termination side
- Bus bar within bridge attachments
- Visible bridge position from mating side and from termination side
- Fast and easy exchange

## Technical characteristics

Number of contacts	5
Insulation resistance	$>10^{10} \Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey), RAL 3000 (flame red), RAL 5015 (sky blue)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

Yellow


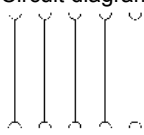
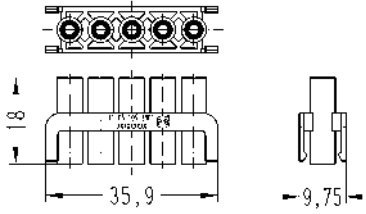

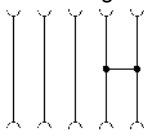
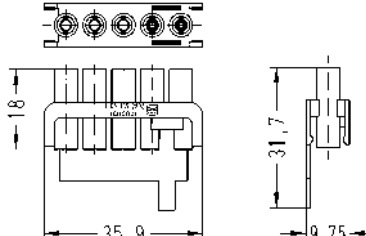

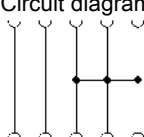
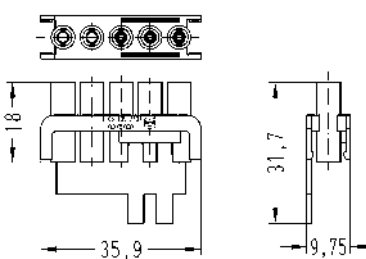
## Specifications and approvals


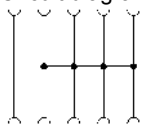
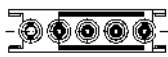
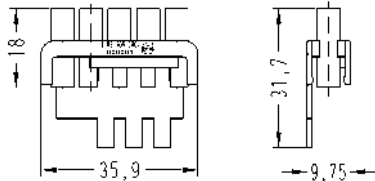


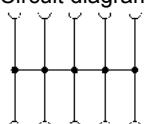

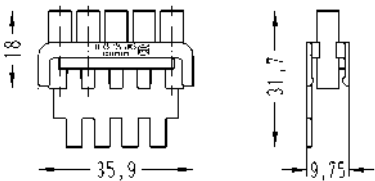

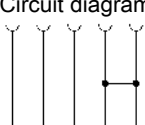

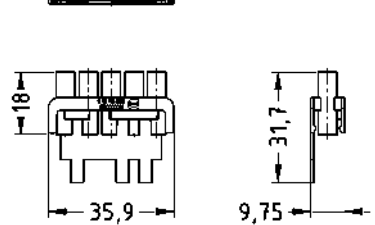
EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
DNV GL

Number of contacts

# 5

Yellowlock

Identification	Part number Female	Drawing (dimensions in mm)
<p>Han-<i>Yellowlock</i><sup>®</sup>, Multiplier, 0 Bridged contacts, 5 Unbridged contacts</p> 	<p>11 05 105 2801</p>	<p>Circuit diagram</p>  
<p>Han-<i>Yellowlock</i><sup>®</sup>, Multiplier, 2 Bridged contacts, 3 Unbridged contacts</p> 	<p>11 05 105 2802</p>	<p>Circuit diagram</p>  
<p>Han-<i>Yellowlock</i><sup>®</sup>, Multiplier, 3 Bridged contacts, 2 Unbridged contacts</p> 	<p>11 05 105 2803</p>	<p>Circuit diagram</p>  

Identification	Part number Female	Drawing (dimensions in mm)
<p>Han-<i>Yellock</i><sup>®</sup>, Multiplier, 4 Bridged contacts, 1 Unbridged contacts</p> 	<p>11 05 105 2804</p>	<p>Circuit diagram</p>   
<p>Han-<i>Yellock</i><sup>®</sup>, Multiplier, 5 Bridged contacts, 0 Unbridged contacts</p>  	<p>11 05 105 2805 11 05 105 2815</p>	<p>Circuit diagram</p>    <p>11 05 105 2805 Red 11 05 105 2815 Blue</p>
<p>Han-<i>Yellock</i><sup>®</sup>, Multiplier, 2 Bridged contacts, 3 Bridged contacts</p> 	<p>11 05 105 2823</p>	<p>Circuit diagram</p>   

Yellock

## Features

- Suitable for Han-Modular® modules
- Fast and tool-less assembly
- Snap-in assembly from mating side and from termination side
- Removal from mating side and from termination side possible

## Technical characteristics

Material (accessories)	Polycarbonate (PC)
Colour (accessories)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Specifications and approvals

EN 60664-1  
IEC 61984  
DNV GL

## Details

### Han-Yellock® adapter frame

Han-Modular® series interfaces can be established using the Han-Yellock® adapter frame. The connection is based on a male/female contact arrangement.

Inserting the adapter frame in the housing:

The adapter frame can be snapped into the housing, bulkhead mounting, on the termination side and the mating side (refer to the illustration).

The lateral plastic tabs („B“) are pressed into the metal clamps on the housing.

The adapter frame then snaps in with a distinctly audible click.

① metal clamp

### Removal of the adapter frame

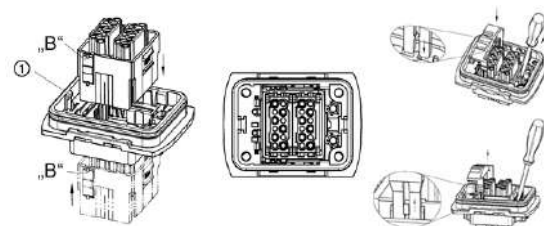
The removal tool part no. 11 99 000 0001 is required for disassembly. (see chapter 90)


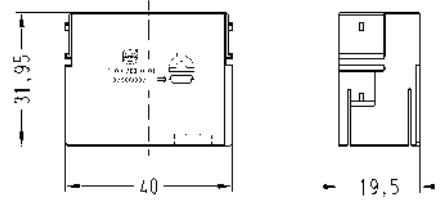

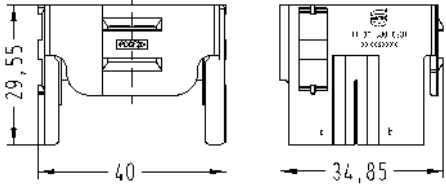

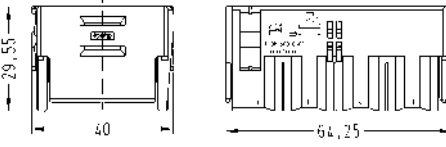

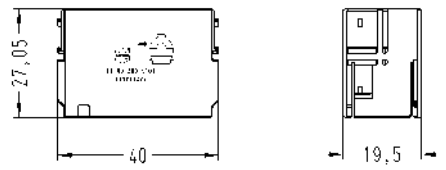
The removal tool is inserted into the metal clamp and pressed down as shown in the following illustration. A screwdriver need also be placed into the notch in the housing.

The removal tool should then be pulled outwards to remove the adapter frame from the housing.

The removal can be made from the termination side as well as from the mating side.

The process is identical for both housings, bulkhead mounting, and carrier hoods.



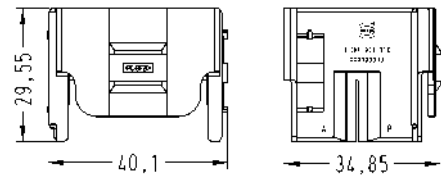
Identification	Part number	Drawing (dimensions in mm)
<p>Han-<i>Yellock</i>®, Adapter frames, for bulkhead mounted housings, for Han-<i>Yellock</i>® 30, for Han-<i>Yellock</i>® 60</p> 	11 00 200 0301	
<p>Mounting/removal from termination side only!</p>		
<p>Han-<i>Yellock</i>®, Adapter frames, for bulkhead mounted housings, for Han-<i>Yellock</i>® 30</p> 	11 00 300 0301	
<p>Han-<i>Yellock</i>®, Adapter frames, for bulkhead mounted housings, for Han-<i>Yellock</i>® 60</p> 	11 00 600 0301	
<p>Han-<i>Yellock</i>®, Adapter frames, for carrier hoods, for Han-<i>Yellock</i>® 30, for Han-<i>Yellock</i>® 60</p> 	11 00 200 0101	
<p>Mounting/removal from termination side only!</p>		

Identification	Part number	Drawing (dimensions in mm)
----------------	-------------	-------------------------------

Han-Yellock®,  
Adapter frames,  
for carrier hoods,  
for Han-Yellock® 30



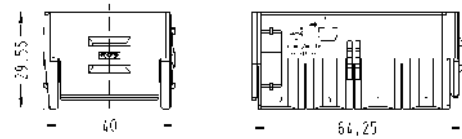
11 00 300 0101



Han-Yellock®,  
Adapter frames,  
for carrier hoods,  
for Han-Yellock® 60



11 00 600 0101



Combinations	Han-Yellock® Hood/Housing				
	30	30	60	60	60
Han-Yellock® 20 Adapter frame (for Han-Yellock® 30 und 60)	1		2	1	
Han-Yellock® 30 Adapter frame		1			
Han-Yellock® 60 Adapter frame					1
Han-Yellock® Module	1		2	4	

Yellock

## Features

- Snap-in assembly from mating side and from termination side
- Finger safe design
- Fast and tool-less assembly

## Technical characteristics

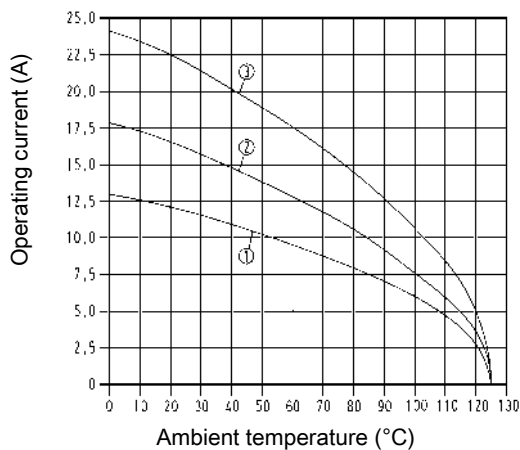
Number of contacts	25, 48
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 2 \text{ m}\Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Derating

### Current carrying capacity

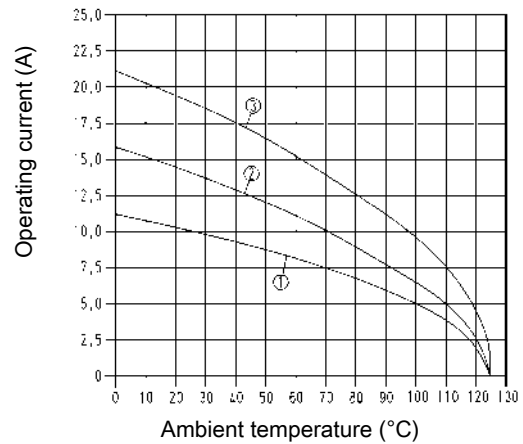
The current carrying capacity of the connectors is limited by the thermal load capability of the contact element material including the connections and the insulating parts. The derating curve is therefore valid for currents which flow constantly (non-intermittent) through each contact element of the connector evenly, without exceeding the allowed maximum temperature.

Measuring and testing techniques acc. to IEC 60512-5-2



- ① Conductor cross-section 1.5 mm<sup>2</sup>
- ② Conductor cross-section 2.5 mm<sup>2</sup>
- ③ Conductor cross-section 4 mm<sup>2</sup>

## Derating



- ① Conductor cross-section 1.5 mm<sup>2</sup>
- ② Conductor cross-section 2.5 mm<sup>2</sup>
- ③ Conductor cross-section 4 mm<sup>2</sup>

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076  
DNV GL

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


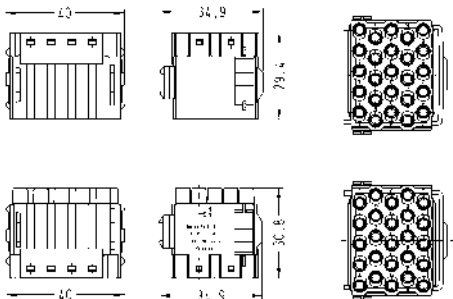

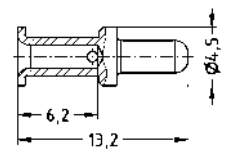

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.



Number of contacts

# 25

16 A 500 V 6 kV 3


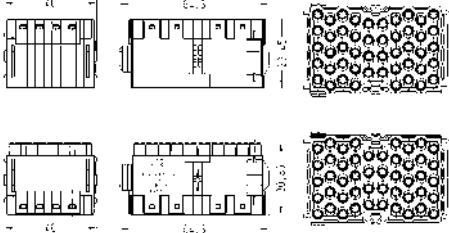

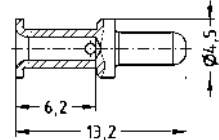


Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																		
		Male	Female																			
<p>Han-Yellock®, Monoblock, Crimp termination</p>  <p>Please order crimp contacts separately. ATTENTION! It is not possible to use 2 monoblocks 30 in the Han-Yellock® 60 series!</p>	0.14 ... 4	11 05 325 3001	11 05 325 3101																			
<p>Han-Yellock®, Crimp contact, Contact surface: Silver plated</p> 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5 3 4	11 05 000 6101 11 05 000 6102 11 05 000 6103 11 05 000 6104 11 05 000 6105 11 05 000 6106 11 05 000 6107 11 05 000 6108	11 05 000 6201 11 05 000 6202 11 05 000 6203 11 05 000 6204 11 05 000 6205 11 05 000 6206 11 05 000 6207 11 05 000 6208																			
<p>Han-Yellock®, Crimp contact, Contact surface: Gold plated</p> 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5 3 4	11 05 000 6121 11 05 000 6122 11 05 000 6123 11 05 000 6124 11 05 000 6125 11 05 000 6126 11 05 000 6127 11 05 000 6128	11 05 000 6221 11 05 000 6222 11 05 000 6223 11 05 000 6224 11 05 000 6225 11 05 000 6226 11 05 000 6227 11 05 000 6228	<table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>6.5 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>6.5 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>6.5 mm</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>6.5 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>6.5 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>6.5 mm</td> </tr> <tr> <td>3 mm<sup>2</sup> AWG 12</td> <td>6.5 mm</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>6.5 mm</td> </tr> </tbody> </table> <p>Removal tool 09 99 000 0319 See chapter Han 90</p>	Conductor cross-section	Stripping length	0.14-0.37 mm <sup>2</sup> AWG 26-22	6.5 mm	0.5 mm <sup>2</sup> AWG 20	6.5 mm	0.75 mm <sup>2</sup> AWG 18	6.5 mm	1 mm <sup>2</sup> AWG 18	6.5 mm	1.5 mm <sup>2</sup> AWG 16	6.5 mm	2.5 mm <sup>2</sup> AWG 14	6.5 mm	3 mm <sup>2</sup> AWG 12	6.5 mm	4 mm <sup>2</sup> AWG 12	6.5 mm
Conductor cross-section	Stripping length																					
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2.5 mm <sup>2</sup> AWG 14	6.5 mm																					
3 mm <sup>2</sup> AWG 12	6.5 mm																					
4 mm <sup>2</sup> AWG 12	6.5 mm																					

Number of contacts

**48**

16 A 500 V 6 kV 3

Yellock

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																		
		Male	Female																			
<p>Han-Yellock®, Monoblock, Crimp termination</p>  <p>Please order crimp contacts separately.</p>	0.14 ... 4	11 05 648 3001	11 05 648 3101																			
<p>Han-Yellock®, Crimp contact, Contact surface: Silver plated</p> 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5 3 4	11 05 000 6101 11 05 000 6102 11 05 000 6103 11 05 000 6104 11 05 000 6105 11 05 000 6106 11 05 000 6107 11 05 000 6108	11 05 000 6201 11 05 000 6202 11 05 000 6203 11 05 000 6204 11 05 000 6205 11 05 000 6206 11 05 000 6207 11 05 000 6208	 																		
<p>Han-Yellock®, Crimp contact, Contact surface: Gold plated</p> 	0.14 ... 0.37 0.5 0.75 1 1.5 2.5 3 4	11 05 000 6121 11 05 000 6122 11 05 000 6123 11 05 000 6124 11 05 000 6125 11 05 000 6126 11 05 000 6127 11 05 000 6128	11 05 000 6221 11 05 000 6222 11 05 000 6223 11 05 000 6224 11 05 000 6225 11 05 000 6226 11 05 000 6227 11 05 000 6228	<table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.14-0.37 mm<sup>2</sup> AWG 26-22</td> <td>6.5 mm</td> </tr> <tr> <td>0.5 mm<sup>2</sup> AWG 20</td> <td>6.5 mm</td> </tr> <tr> <td>0.75 mm<sup>2</sup> AWG 18</td> <td>6.5 mm</td> </tr> <tr> <td>1 mm<sup>2</sup> AWG 18</td> <td>6.5 mm</td> </tr> <tr> <td>1.5 mm<sup>2</sup> AWG 16</td> <td>6.5 mm</td> </tr> <tr> <td>2.5 mm<sup>2</sup> AWG 14</td> <td>6.5 mm</td> </tr> <tr> <td>3 mm<sup>2</sup> AWG 12</td> <td>6.5 mm</td> </tr> <tr> <td>4 mm<sup>2</sup> AWG 12</td> <td>6.5 mm</td> </tr> </tbody> </table> <p>Removal tool 09 99 000 0319 See chapter Han 90</p>	Conductor cross-section	Stripping length	0.14-0.37 mm <sup>2</sup> AWG 26-22	6.5 mm	0.5 mm <sup>2</sup> AWG 20	6.5 mm	0.75 mm <sup>2</sup> AWG 18	6.5 mm	1 mm <sup>2</sup> AWG 18	6.5 mm	1.5 mm <sup>2</sup> AWG 16	6.5 mm	2.5 mm <sup>2</sup> AWG 14	6.5 mm	3 mm <sup>2</sup> AWG 12	6.5 mm	4 mm <sup>2</sup> AWG 12	6.5 mm
Conductor cross-section	Stripping length																					
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2.5 mm <sup>2</sup> AWG 14	6.5 mm																					
3 mm <sup>2</sup> AWG 12	6.5 mm																					
4 mm <sup>2</sup> AWG 12	6.5 mm																					

## Features

- Hoods/housings for industrial applications
- Highly EMC resistant
- High robustness due to internal locking mechanism
- Compatible with inserts size Han® 3 A

## Technical characteristics

Un-/locking temperature	-10 ... +85 °C
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Degree of protection acc. to IEC 60529	IP65, IP67
Material (hood/housing)	Zinc die-cast
Surface (hood/housing)	Powder-coated, Zinc passivation
Colour (hood/housing)	RAL 7021 (black grey), Metallic
Material (seal)	NBR
Material (locking)	Polyamide (PA), Stainless steel
Colour (locking)	Melon yellow
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Specifications and approvals

EN 60664-1  
IEC 61984  
DNV GL



## Details

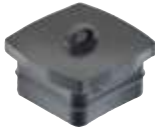
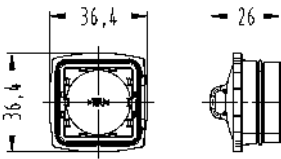

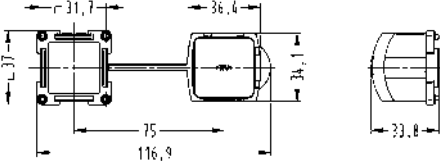

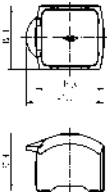
For use with inserts Han® Q, the seal on the insert has to be removed.

Hoods/housings for industrial applications  
Push button

Yellock

Identification	Cable entry	Part number	Drawing (dimensions in mm)
Han- <i>Yellock</i> ®, Hood, Top entry, IP65, IP67	1x M20 1x M25	11 20 003 1400 11 20 003 1401	
Han- <i>Yellock</i> ®, Hood, Side entry, IP65, IP67	1x M20 1x M25	11 20 003 1600 11 20 003 1601	
Han- <i>Yellock</i> ®, Bulkhead mounted housing, Straight, IP65, IP67		11 20 003 0300  11 20 003 0800	

Yellock

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han-<i>Yellock</i>®, Protection cover, for hoods, Thermoplastic</p> 		11 20 003 5456	
<p>Han-<i>Yellock</i>®, Protection cover, for bulkhead mounted housings, Thermoplastic, With seal</p> 		11 20 003 5406	
<p>Han-<i>Yellock</i>®, Protection cover, for bulkhead mounted housings, Thermoplastic</p> 		11 20 003 5407	

## Features

- for three Han-Yellock® modules
- High robustness due to internal locking mechanism
- Two-part hood
- Earthed contacts PE in crimped or Han-Quick Lock® termination
- Protection cover retrofit on housing side

## Technical characteristics

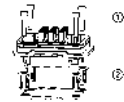
Un-/locking temperature	-10 ... +85 °C
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Degree of protection acc. to IEC 60529	IP65, IP67
Material (hood/housing)	Zinc die-cast, Aluminium die-cast
Surface (hood/housing)	Zinc passivation, Powder-coated, Passivated
Colour (hood/housing)	Metallic, RAL 7021 (black grey), RAL 9005 (jet black)
Material (seal)	NBR
Material (locking)	Polyamide (PA), Stainless steel
Colour (locking)	Melon yellow
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Specifications and approvals

EN 60664-1  
IEC 61984  
DNV GL

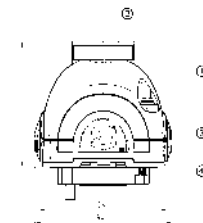


## Details



① M4 fixing screw (screw length > 20 mm, tightening torque: 1Nm)

② Panel fastener (tightening torque: 2.3 Nm)



① Shell with top entry


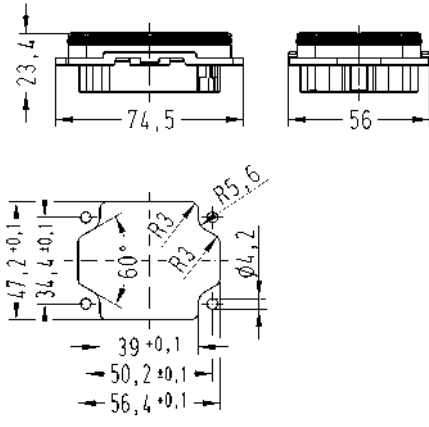

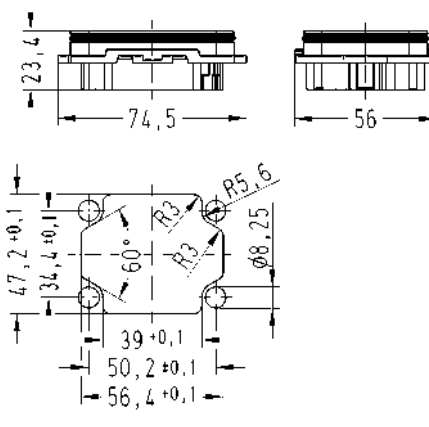
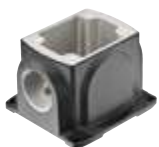
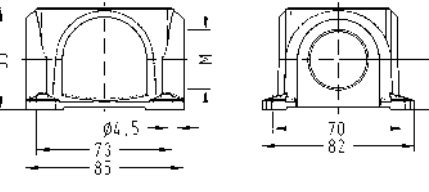
② Cable entry M20 ... M40


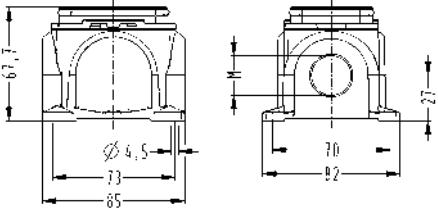

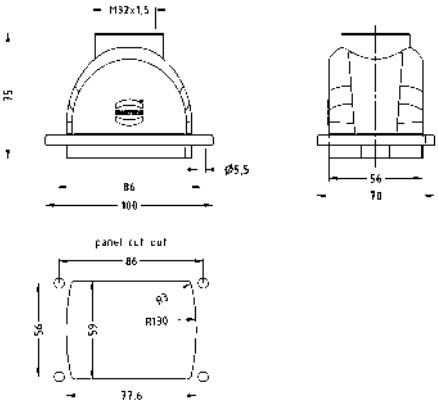

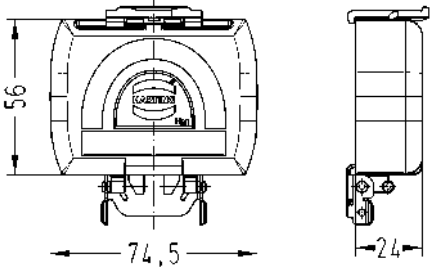
③ Carrier hood with push button release

④ Bulkhead mounted housing

Hoods/housings for industrial applications

Yellock

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han-Yellock®, Bulkhead mounted housing, IP65, IP67</p> 		11 12 300 0301	
<p>Han-Yellock®, Bulkhead mounted housing, IP65, IP67</p> <p>Pack contents: incl. 4 panel fastener</p> 		11 12 300 0302	
<p>Han-Yellock®, Surface mounted housing, Side entry, IP65, IP67</p> 	<p>1x M20 1x M25 1x M32 2x M20 2x M25 2x M32</p>	<p>11 12 300 1200 11 12 300 1201 11 12 300 1202 11 12 300 1204 11 12 300 1205 11 12 300 1206</p>	


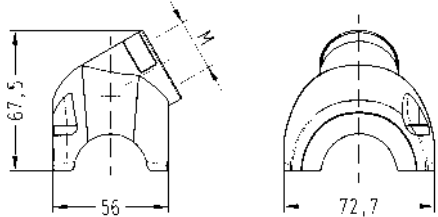

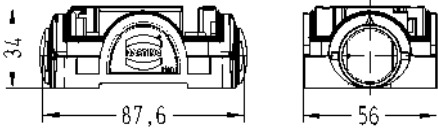

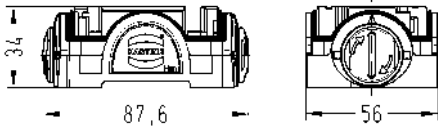

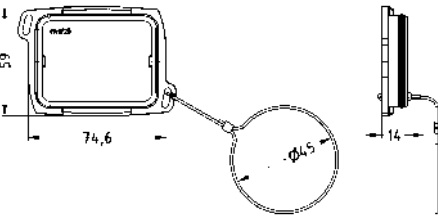
Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han-Yellok®, Surface mounted housing, incl. bulkhead mounted housings, Side entry, IP65, IP67</p> 	<p>1x M20 1x M25 1x M32 2x M20 2x M25 2x M32</p>	<p>11 12 300 1210 11 12 300 1211 11 12 300 1212 11 12 300 1214 11 12 300 1215 11 12 300 1216</p>	
<p>Han-Yellok®, Panel feed through housing, Top entry, IP65, IP67</p> 	<p>1x M32</p>	<p>11 12 300 1702</p>	
<p>Han-Yellok®, Protection cover, for bulkhead mounted housings, Thermoplastic, IP65, IP67</p> 		<p>11 12 300 5401</p>	



Hoods/housings for industrial applications  
Push button

Yellock

Identification	Cable entry	Part number	Drawing (dimensions in mm)	
Han-Yellock®, Shell, Top entry, IP65, IP67	1x M20 1x M25 1x M32	11 12 300 1400 11 12 300 1401 11 12 300 1402		
Han-Yellock®, Shell, Side entry, IP65, IP67	1x M20 1x M25 1x M32	11 12 300 1500 11 12 300 1501 11 12 300 1502		
Han-Yellock®, Shell, White, Side entry, IP65, IP67	1x M20	11 12 300 1510		
Han-Yellock®, Shell, EMC version, Side entry, IP65, IP67	1x M25	11 12 300 1581		

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han-<i>Yellock</i>®, Shell, Angled entry, IP65, IP67</p> 	<p>1x M20 1x M25 1x M32</p>	<p>11 12 300 1600 11 12 300 1601 11 12 300 1602</p>	
<p>Han-<i>Yellock</i>®, Carrier hood, Plain push button, IP65, IP67</p> 		<p>11 12 300 0100</p>	
<p>Han-<i>Yellock</i>®, Carrier hood, Push button, slot, IP65, IP67</p> 		<p>11 12 300 0110</p>	
<p>Han-<i>Yellock</i>®, Protection cover, for carrier hoods, With fixing cord, Thermoplastic, IP65, IP67</p> 		<p>11 12 300 5451</p>	

Hoods/housings for outdoor applications

Yellock

Identification	Part number	Drawing (dimensions in mm)
Han- <i>Yellock</i> ®, Bulkhead mounted housing, IP65, IP67	11 13 300 0301	
Han- <i>Yellock</i> ®, Bulkhead mounted housing, IP65, IP67 Pack contents: incl. 4 panel fastener	11 13 300 0302	



Hoods/housings for outdoor applications  
Push button

Yellock

Identification	Cable entry	Part number	Drawing (dimensions in mm)
Han-Yellock®, Shell, Top entry, IP65, IP67	1x M25	11 13 300 1401	
Han-Yellock®, Shell, Side entry, IP65, IP67	1x M25	11 13 300 1501	
Han-Yellock®, Shell, Angled entry, IP65, IP67	1x M25	11 13 300 1601	
Han-Yellock®, Carrier hood, Plain push button, IP65, IP67		11 13 300 0100	
Han-Yellock®, Carrier hood, Push button, slot, IP65, IP67		11 13 300 0110	

## Features

- for six Han-Yellock® modules
- High robustness due to internal locking mechanism
- Two-part hood
- Earthed contacts PE in crimped or Han-Quick Lock® termination
- Protection cover retrofit on housing side

## Technical characteristics

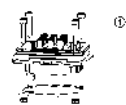
Un-/locking temperature	-10 ... +85 °C
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Degree of protection acc. to IEC 60529	IP65, IP67
Material (hood/housing)	Zinc die-cast, Aluminium die-cast
Surface (hood/housing)	Passivated, Powder-coated
Colour (hood/housing)	Metallic, RAL 7021 (black grey), RAL 9005 (jet black)
Material (seal)	NBR
Material (locking)	Polyamide (PA), Stainless steel
Colour (locking)	Melon yellow
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Specifications and approvals

EN 60664-1  
IEC 61984  
DNV GL



## Details


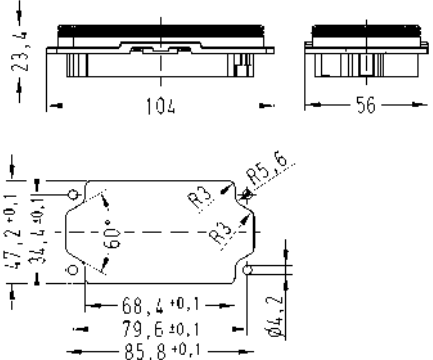

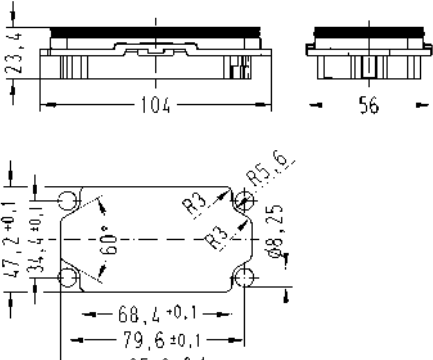

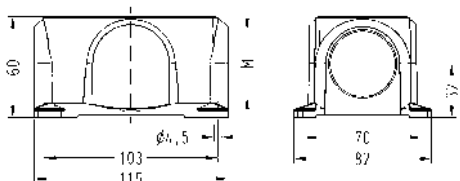


① M4 fixing screw (screw length > 20 mm, tightening torque: 1Nm)


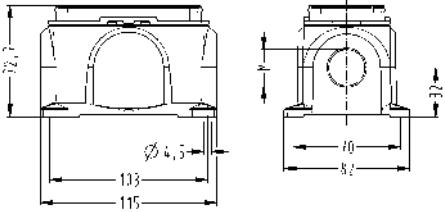

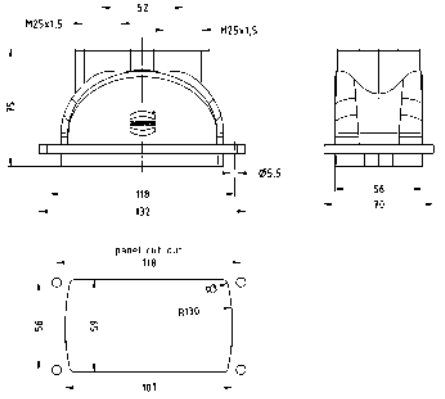

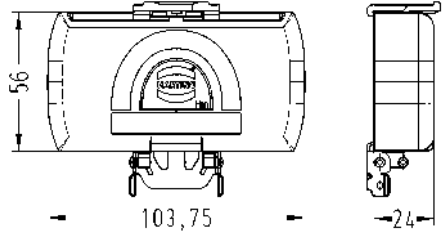
② Panel fastener (tightening torque: 2.3 Nm)

Hoods/housings for industrial applications

Yellock


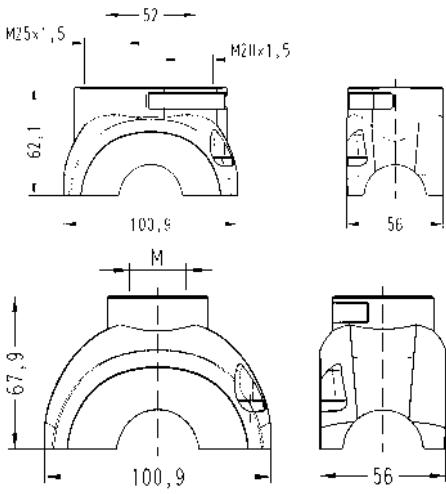

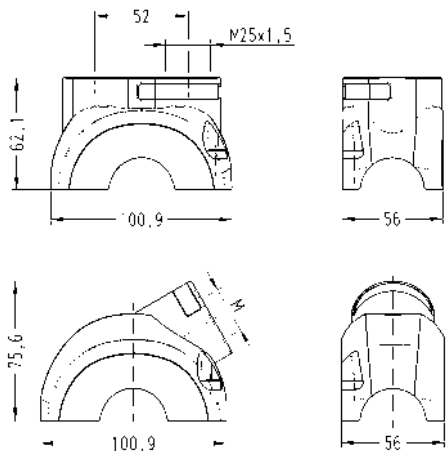

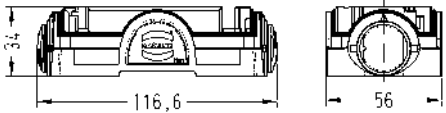
Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han-<i>Yellock</i>®, Bulkhead mounted housing, IP65, IP67</p> 		11 12 600 0301	
<p>Han-<i>Yellock</i>®, Bulkhead mounted housing, IP65, IP67</p> <p>Pack contents: incl. 4 panel fastener</p> 		11 12 600 0302	
<p>Han-<i>Yellock</i>®, Surface mounted housing, Side entry, IP65, IP67</p> 	<p>1x M25 1x M32 1x M40 2x M25 2x M32 2x M40</p>	<p>11 12 600 1201 11 12 600 1202 11 12 600 1203 11 12 600 1205 11 12 600 1206 11 12 600 1207</p>	

Yellock

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han-Yellock®, Surface mounted housing, incl. bulkhead mounted housings, Side entry, IP65, IP67</p> 	<p>1x M25 1x M32 1x M40 2x M25 2x M32 2x M40</p>	<p>11 12 600 1211 11 12 600 1212 11 12 600 1213 11 12 600 1215 11 12 600 1216 11 12 600 1217</p>	
<p>Han-Yellock®, Panel feed through housing, Top entry, IP65, IP67</p> 	<p>1x M32 2x M25</p>	<p>11 12 600 1702 11 12 600 1711</p>	
<p>Han-Yellock®, Protection cover, for bulkhead mounted housings, Thermoplastic, IP65, IP67</p> 		<p>11 12 600 5401</p>	


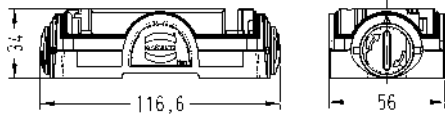

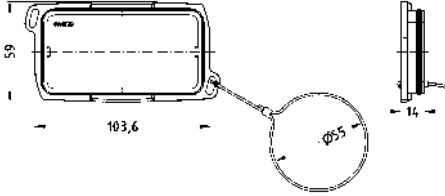
Hoods/housings for industrial applications  
Push button

Yellock

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han-<i>Yellock</i>®, Shell, Top entry, IP65, IP67</p> 	<p>1x M20, 1x M25 1x M25 1x M32 1x M40 2x M25</p>	<p>11 12 600 1415 11 12 600 1401 11 12 600 1402 11 12 600 1403 11 12 600 1411</p>	
<p>Han-<i>Yellock</i>®, Shell, Side entry, IP65, IP67</p> 	<p>1x M25 1x M32 1x M40</p>	<p>11 12 600 1501 11 12 600 1502 11 12 600 1503</p>	
<p>Han-<i>Yellock</i>®, Carrier hood, Plain push button, IP65, IP67</p> 		<p>11 12 600 0100</p>	



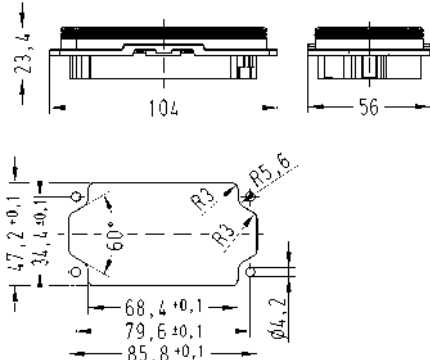


Yellock

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han-<i>Yellock</i>®, Carrier hood, Push button, slot, IP65, IP67</p> 		11 12 600 0110	
<p>Han-<i>Yellock</i>®, Protection cover, for carrier hoods, With fixing cord, Thermoplastic, IP65, IP67</p> 		11 12 600 5451	


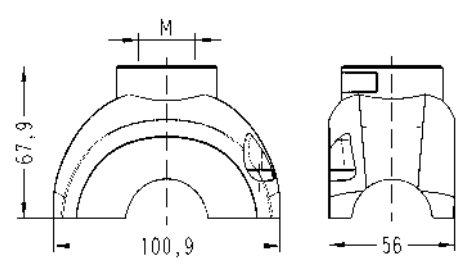

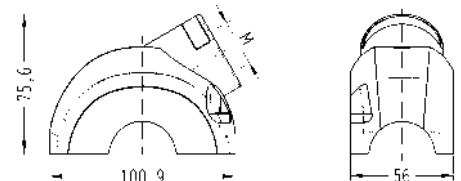

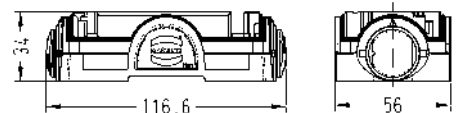

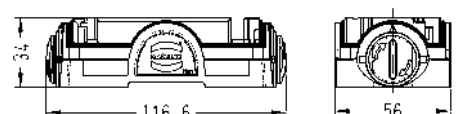
Hoods/housings for outdoor applications

Yellock

Identification	Part number	Drawing (dimensions in mm)
<p>Han-<i>Yellock</i>®, Bulkhead mounted housing, IP65, IP67</p> 	<p>11 13 600 0301</p>	
<p>Han-<i>Yellock</i>®, Bulkhead mounted housing, IP65, IP67</p> <p>Pack contents: incl. 4 panel fastener</p> 	<p>11 13 600 0302</p>	

Hoods/housings for outdoor applications  
Push button

Yellock


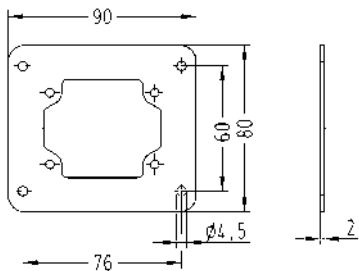

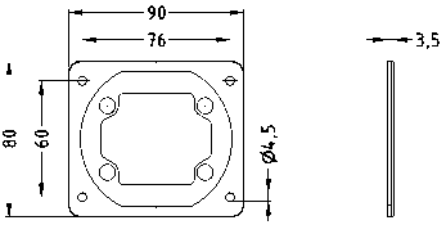

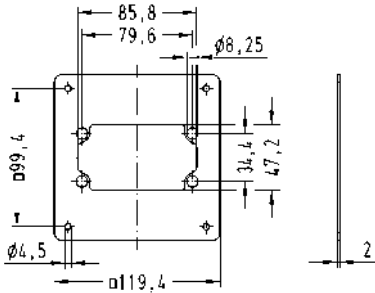
Identification	Cable entry	Part number	Drawing (dimensions in mm)
Han- <i>Yellock</i> ®, Shell, Top entry, IP65, IP67  	1x M32 1x M40	11 13 600 1402 11 13 600 1403	
Han- <i>Yellock</i> ®, Shell, Side entry, IP65, IP67  	1x M32	11 13 600 1502	
Han- <i>Yellock</i> ®, Carrier hood, Plain push button, IP65, IP67  		11 13 600 0100	
Han- <i>Yellock</i> ®, Carrier hood, Push button, slot, IP65, IP67  		11 13 600 0110	


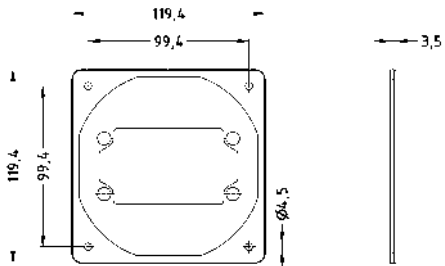

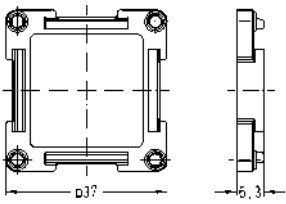

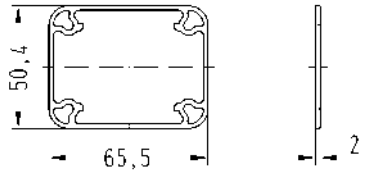

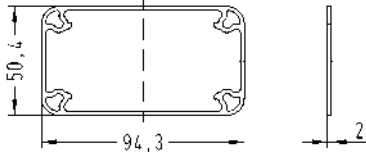


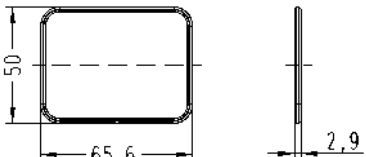

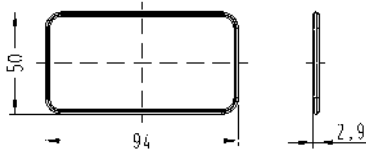
## Technical characteristics

Material (seal) NBR  
 Colour (seal) Black

## Technical characteristics

Material (accessories) Steel, zinc plated, Thermoplastic  
 RoHS compliant





Identification	Part number	Drawing (dimensions in mm)
<p>Adapter plate, for Han-<i>Yellowlock</i>® 30</p>  <p>Circular 68 mm punch for Han-<i>Yellowlock</i>® panel cut out</p>	11 00 300 9601	
<p>Adapter plate, for Han-<i>Yellowlock</i>® 30, With seal</p> 	11 00 300 9603	
<p>Adapter plate, for Han-<i>Yellowlock</i>® 60</p> 	11 00 600 9601	

Identification		Part number	Drawing (dimensions in mm)
Adapter plate, for Han- <i>Yellock</i> ® 60, With seal		11 00 600 9603	
Flange gasket, for Han- <i>Yellock</i> ® 10		11 20 003 9904	
Flange gasket, for Han- <i>Yellock</i> ® 30		11 00 300 9503	
Flange gasket, for Han- <i>Yellock</i> ® 60		11 00 600 9503	
Profile gasket, for Han- <i>Yellock</i> ® 10		11 20 003 9905	
Profile gasket, for Han- <i>Yellock</i> ® 30		11 00 300 9501	
Profile gasket, for Han- <i>Yellock</i> ® 60		11 00 600 9501	

Identification	Part number	Drawing (dimensions in mm)
Shaped gasket, for Han- <i>Yellock</i> ® 30	11 00 300 9502	
Shaped gasket, for Han- <i>Yellock</i> ® 60	11 00 600 9502	
Shielding frame, for Han- <i>Yellock</i> ® 30, for fastening with cable ties	11 12 300 5201	
Shielding frame, for Han- <i>Yellock</i> ® 30, Earthing with saddle terminals	11 12 300 5202	
Shielding frame, for Han- <i>Yellock</i> ® 60, for fastening with cable ties	11 12 600 5201	
Han- <i>Yellock</i> ®, Coding element, Pack contents: 8 pieces per frame	11 00 000 9501	

Yellock

Yellowlock

Identification	Part number	Drawing (dimensions in mm)
<p>Fixing screws, M3, for Han-<i>Yellowlock</i>® 10</p> 	<p>11 20 003 9903</p>	
<p>Han-<i>Yellowlock</i>®, Identification strip, Pack contents: 500 pieces on a reel</p> 	<p>11 00 000 9601</p>	
<p>PE / N rail, Suitable for Han-<i>Yellowlock</i>® 30 surface mounted housing, Pack contents: 1 bar with fixing screws</p> 	<p>11 00 000 9512</p>	
<p>PE / N rail, Suitable Han-<i>Yellowlock</i>® 60 surface mounted housing, Pack contents: 1 bar with fixing screws</p> 	<p>11 00 000 9511</p>	

## Technical characteristics

Contact resistance	≤2 mΩ
Material (contacts)	Copper alloy
RoHS	compliant with exemption

## Specifications and approvals

EN 60664-1  
IEC 61984

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number Male	Drawing (dimensions in mm)
Han- <i>Yellowlock</i> <sup>®</sup> , PE contact, Crimp termination, Contact surface: Silver plated	6 10	11 00 000 9509 11 00 000 9510	<p>Stripping length 7.5 mm</p> <p>Stripping length 7.5 mm</p>
Han- <i>Yellowlock</i> <sup>®</sup> , PE contact chamber, Han-Quick Lock <sup>®</sup> termination, Contact surface: Silver plated	0.5 ... 2.5	11 05 001 2601	<p>Stripping length 10 mm</p>



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Han-Eco® Monoblocks .....	<b>Han 29.7</b>
Han-Eco® Modular for industrial applications .....	<b>Han 29.12</b>
Han-Eco® Modular for outdoor applications .....	<b>Han 29.25</b>
Han-Eco® A for industrial applications .....	<b>Han 29.38</b>
Han-Eco® A for outdoor applications .....	<b>Han 29.45</b>
Han-Eco® B for industrial applications.....	<b>Han 29.52</b>
Han-Eco® B for outdoor applications.....	<b>Han 29.82</b>
Accessories .....	<b>Han 29.106</b>

**Han-Eco® Modular**  
19 41 xxx xxxx



**Han-Eco® A**  
19 46 xxx xxxx



**Han-Eco® B**  
19 43 xxx xxxx



The Han-Eco® B series is a new series of hoods and housings in the Han-Eco® portfolio that comes in sizes 6B – 24B. This series is completely compatible with the Han® B industrial standard. Standard inserts and modules in conjunction with the hinged frames from the Han-Modular® portfolio may be used.

**Highlights Han-Eco® B**



Backwards compatibility with the Han® B metal hoods and housings



Rear mounting for the inserts enables faster installation



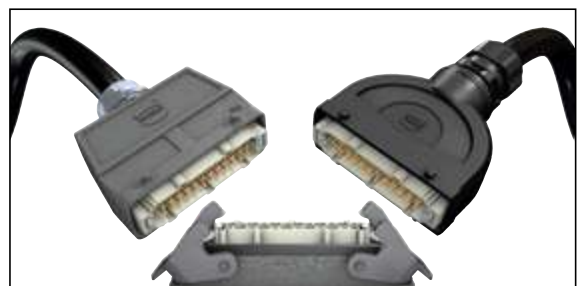
Minimal weight with excellent mechanical robustness







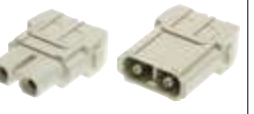




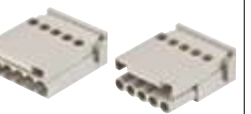
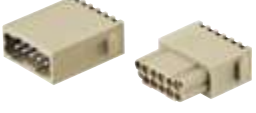
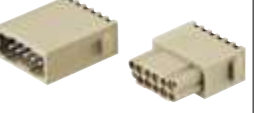


Outdoor variant is available for more extreme environmental conditions



"Click and mate" installation ensures secure assembly



70 - 100 A		Han® 100 A Axial module	Han® 100 A Crimp module	Han® 100 A Single module	Han® 70 A Crimp module
					
	Number of contacts	2*	2*	1	2
	Electrical data	100 A / 1000 V	100 A / 1000 V	100 A / 830 V	70 A / 1000 V
	Termination type	Axial screw termination	Crimp termination	Crimp termination	Crimp termination
	Cross-section	16 ... 35 mm <sup>2</sup>	10 ... 35 mm <sup>2</sup>	10 ... 35 mm <sup>2</sup>	6 ... 25 mm <sup>2</sup>
	Male module (M)	09 14 002 2651	09 14 002 3051	09 14 001 3031	09 14 002 3041
	Female module (F)	09 14 002 2751	09 14 002 3151	09 14 001 3131	09 14 002 3141
40 - 70 A		Han® 70 A Axial module	Han® 70 A Hybrid module	Han® 40 A Axial module	Han® C Axial module
					
	Number of contacts	2	1 + (4 x Han E®)	2	3
	Electrical data	70 A / 1000 V	70 A / 1000 V	40 A / 1000 V	40 A / 690 V
	Termination type	Axial screw termination	Axial screw termination	Axial screw termination	Axial screw termination
	Cross-section	14 ... 22 mm <sup>2</sup>	14 ... 22 mm <sup>2</sup>	6 ... 10 mm <sup>2</sup>	6 ... 10 mm <sup>2</sup>
	Male module (M)	09 14 002 2647	09 14 005 2647	09 14 002 2602	09 14 003 2602
	Female module (F)	09 14 002 2742	09 14 005 2742	09 14 002 2702	09 14 003 2702
16 A		Han E® Quick Lock module	Han® EE Quick Lock module	Han® ES module	Han E® screw module
					
	Number of contacts	6	8	5	5
	Electrical data	16 A / 500 V	16 A / 400 V	16 A / 400 V	16 A / 230/400 V
	Termination type	Quick Lock termination	Quick Lock termination	Cage clamp termination	Screw termination
	Cross-section	0.5 ... 2.5 mm <sup>2</sup>	0.5 ... 2.5 mm <sup>2</sup>	0.14 ... 2.5 mm <sup>2</sup>	0.5 ... 2.5 mm <sup>2</sup>
	Male module (M)	09 14 006 2633	09 14 008 2633	09 14 005 2616	09 14 005 2601
	Female module (F)	09 14 006 2733	09 14 008 2733	09 14 005 2716	09 14 005 2701
≤ 10 A		Han DD® Quick Lock module	Han DD® Quick Lock module		
					
	Number of contacts	12, silver plated	12, gold plated		
	Electrical data	10 A / 250 V	10 A / 250 V		
	Termination type	Quick Lock termination	Quick Lock termination		
	Cross-section	0.25 ... 1.5 mm <sup>2</sup>	0.25 ... 1.5 mm <sup>2</sup>		
Male module (M)	09 14 012 2632	09 14 012 2634			
Female module (F)	09 14 012 2732	09 14 012 2734			

\* Double module, requires two places in the frame

Han  
Eco

40 A		<b>Han® A Crimp module</b>	<b>Han® C module</b>	<b>Han® CC module</b>	<b>Han® CD module</b>
	Number of contacts	2	3	4	3 + 4
	Electrical data	40 A / 1000 V	40 A / 690 V	40 A / 830 V	40 A + 10 A / 830 V
	Cross-section	1.5 ... 10 mm <sup>2</sup>	1.5 ... 6 mm <sup>2</sup>	1.5 ... 6 mm <sup>2</sup>	0.14 ... 6 mm <sup>2</sup>
Termination type	Crimp termination, Han® C				
Male module (M)	09 14 002 3002	09 14 003 3001	09 14 004 3041	09 14 007 3001	
Female module (F)	09 14 002 3102	09 14 003 3101	09 14 004 3141	09 14 007 3101	
16 A		<b>Han E® module</b>	<b>Han® EE module</b>	<b>Han® EEE module</b>	<b>Han E® Protected module</b>
	Number of contacts	6	8	20*	6
	Electrical data	16 A / 500 V	16 A / 400 V	16 A / 500 V	16 A / 830 V
	Cross-section	0.14 ... 4 mm <sup>2</sup>	0.14 ... 4 mm <sup>2</sup>	0.14 ... 4 mm <sup>2</sup>	0.14 ... 4 mm <sup>2</sup>
Termination type	Crimp termination, Han E®				
Male module (M)	09 14 006 3001	09 14 008 3001	09 14 020 3001	09 14 006 3041	
Female module (F)	09 14 006 3101	09 14 008 3101	09 14 020 3101	09 14 006 3141	
≤ 10 A		<b>Han DD® module</b>	<b>Han® DDD module</b>	<b>Han DD® Quad module</b>	
	Number of contacts	12	17	25	
	Electrical data	10 A / 250 V	10 A / 150 V	4 A / 50 V	
	Cross-section	0.14 ... 2.5 mm <sup>2</sup>	0.14 ... 2.5 mm <sup>2</sup>	0.08 ... 0.52 mm <sup>2</sup>	
Termination type	Crimp termination, Han D®				
Male module (M)	09 14 012 3002	09 14 017 3001	09 14 025 3001		
Female module (F)	09 14 012 3102	09 14 017 3101	09 14 025 3101		
High voltage		<b>Han® HV module 40 A</b>	<b>Han® HV module 16 A</b>	<b>Han® HV Single module</b>	
	Number of contacts	2*	2*	2	
	Electrical data	40 A / 2900/5000 V	16 A / 2900/5000 V	16 A / 2500 V	
	Cross-section	1.5 ... 10 mm <sup>2</sup>	0.14 ... 4 mm <sup>2</sup>	0.14 ... 4 mm <sup>2</sup>	
Termination type	Crimp termination, Han E®				
Male module (M)	09 14 002 3023	09 14 002 3021	09 14 002 3025		
Female module (F)	09 14 002 3123	09 14 002 3121	09 14 002 3125		

\* Double module, requires two places in the frame

# Modules and monoblocks for Han-Eco® Modular



Han Eco

Han® RJ45 modules	Han® RJ45 module	for patch cable	for IDC	for patch cable	for IDC and preLink
	- 8 contacts - Cat. 6 <sub>A</sub> - 10 Gbit/s				
	Part numbers	Male module (M) 09 14 001 4623	Male module (M) 09 14 001 4623	Female module (F) 09 14 001 4721	Female module (F) 09 14 001 4722
		Adapter for patch cables: 09 14 000 9966	RJ Industrial IDC: 09 45 400 1560	-	RJ45 female IDC: 09 14 545 1561
Patch cable cat. 6: 09 47 474 71xx		-	-	RJ45 female preLink: 09 14 008 4720	
Han-Quintax® modules	Quintax module	Han-Quintax®	Han® High Density Quintax	Han D® Coax	Han E® Coax
	Number of contacts	2 x 4*	2 x 8*	2 x Coax*	2 x Coax*
	Male module (M)	09 14 002 3001	09 14 002 3001	09 14 002 3001	09 14 002 3001
	Female module (F)	09 14 002 3101	09 14 002 3101	09 14 002 3101	09 14 002 3101
	Insert (Cable Ø ≤ 9.5 mm)				
	Data rate	100 Mbit/s (Cat. 5e)	100 Mbit/s (Cat. 5e)	≤ 500 Mhz / 75 Ω	≤ 500 Mhz / 50 Ω
	Electrical data	10 A / 50 V	5 A / 50 V	10 A / 50 V	16 A / 50 V
	Cross-section	0.14 ... 2.5 mm <sup>2</sup>	0.09 ... 0.52 mm <sup>2</sup>	0.14 ... 2.5 mm <sup>2</sup>	0.14 ... 4 mm <sup>2</sup>
	Termination type	Crimp termination, Han D®	Crimp termination, D-Sub	Crimp termination, Han D®	Crimp termination, Han E®
	PE shielding termination	Optional shielding termination to the hinged frame with the aid of Han-Quintax® metal adapter 09 14 000 9915			
Han® GigaBit – Han® MegaBit modules	Adapter Modul	Han® GigaBit module	Han® MegaBit module	Han® MegaBit module with 1 cable entry	Han® Shielded module
	Male module (M)	09 14 001 3011	09 14 001 3011	09 14 001 3011	09 14 001 3011
	Female module (F)	09 14 001 3111	09 14 001 3111	09 14 001 3111	09 14 001 3111
	Insert (Cable Ø ≤ 14 mm)				
	Number of contacts	8	2 x 4	8	20
	Data rate	10 Gbit/s (Cat. 6 <sub>A</sub> )	2 x 100 Mbit/s (Cat. 5e)	1 Gbit/s (Cat. 5e)	4 A / 32 V
	Electrical data	5 A / 50 V	10 A / 50 V	10 A / 50 V	0.09 ... 0.52 mm <sup>2</sup>
	Cross-section	0.09 ... 0.52 mm <sup>2</sup>	0.14 ... 2.5 mm <sup>2</sup>	0.14 ... 2.5 mm <sup>2</sup>	0.09 ... 0.52 mm <sup>2</sup>
	Termination type	Crimp termination, D-Sub	Crimp termination, Han D®	Crimp termination, Han D®	Crimp termination, D-Sub
	Shielding termination	Crimp flange	2 x crimp flange	Crimp flange	Crimp flange
Male insert (M)	09 14 008 3011	09 14 008 3016	09 14 008 3021	09 14 020 3013	
Female insert (F)	09 14 008 3111	09 14 008 3116	09 14 008 3121	09 14 020 3113	
	with PE shielding termination	with PE shielding termination	with PE shielding termination	-	
Male insert (M)	09 14 008 3012	09 14 008 3017	09 14 008 3022		
Female insert (F)	09 14 008 3112	09 14 008 3117	09 14 008 3122		
Serial Bus modules		Han D-Sub module	Han® USB module	Han® FireWire module	
	Number of contacts	9 + shielding	8	6	
	Datenrate	12 Mbit/s (Profibus)	5 Gbit/s (USB 3.0)	400 Mbit/s (IEEE 1394a)	
	Electrical data	5 A / 50 V	1 A / 50 V	1 A / 50 V	
	Cross-section	0.09 ... 0.52 mm <sup>2</sup>			
Termination type	Crimp termination, D-Sub	USB patch cable	FireWire patch cable		
Male module (M)	09 14 009 3001	09 14 001 4601	09 14 001 4611		
Female module (F)	09 14 009 3101	09 14 001 4703	09 14 001 4711		







\* Double module, requires two places in the frame



For more technical details see chapter Han 06

Removal tools 09 99 000 0331, 09 99 000 0828 and 09 99 000 0842 see chapter Han 90



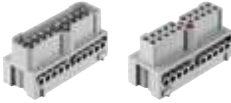

\* Take care of the wiring space! Choose inner positions.

Han Eco

	Han® SC module	Han® Multi module	Han® Multi module
Number of contacts	 4	 4	 12*
Male module (M)	09 14 004 4701	09 14 004 4501	09 14 012 4501
Female module (F)	09 14 004 4713	09 14 004 4512	09 14 012 4512
Contacts			
1 mm POF	20 10 001 5211	Male: 20 10 001 4211 Female: 20 10 001 4221	Male: 20 10 001 4211 Female: 20 10 001 4221
1 mm POF Fast assembly termination	20 10 001 5217		
SI-Fibre 200 / 230 µm Multi-Mode	20 10 230 5211	Male: 20 10 230 4211 Female: 20 10 230 4221	Male: 20 10 230 4211 Female: 20 10 230 4221
GI-Fibre 50-62.5 / 125 µm Multi-Mode	20 10 125 5211	Male: 20 10 125 4212 Female: 20 10 125 4222	Male: 20 10 125 4212 Female: 20 10 125 4222

	Han-Eco® PE module	Han® Dummy module
Field of application	for Han-Eco® hoods/housings only	to fill-up empty module places
Number of contacts	 1 x PE	
Electrical data		
Cross-section	1.5 ... 16 mm <sup>2</sup>	
Termination type	Screw termination	
Male module (M)	19 41 001 2600	09 14 000 9950
Female module (F)	19 41 001 2700	

\* Double module, requires two places in the frame

	6 B	10 B	16 B	24 B
Number of contacts	 10	 14	 20	 28
Electrical data	16 A / 500 V	16 A / 500 V	16 A / 500 V	16 A / 500 V
Cross section	0.75 ... 2.5 mm <sup>2</sup>	0.75 ... 2.5 mm <sup>2</sup>	0.75 ... 2.5 mm <sup>2</sup>	0.75 ... 2.5 mm <sup>2</sup>
Termination type	Screw termination	Screw termination	Screw termination	Screw termination
Male	19 41 010 2601	19 41 014 2601	19 41 020 2601	19 41 028 2601
Female	19 41 010 2701	19 41 014 2701	19 41 020 2701	19 41 028 2701

## Features

- Suitable for Han-Eco® hoods/housings and the Han-Modular® docking frame
- Higher contact density compared to Han E® standard screw inserts (up to 65%)
- Han-Eco® “click and mate” assembly concept
- 6 coding options

## Technical characteristics

Number of contacts	10, 14, 20, 28
Rated current	16 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Rated voltage acc. to CSA	600 V
Insulation resistance	$>10^{10} \Omega$
Limiting temperature	-40 ... +125 °C
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

Number of contacts

# 10+

16 A 500 V 6 kV 3

Han  
Eco

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han-Eco®, Screw termination, With wire protection, Contact surface: Silver plated</p>	0.75 ... 2.5	19 41 010 2601	19 41 010 2701	<p>Tightening torque 0.5 Nm</p>



Number of contacts

# 14+

16 A 500 V 6 kV 3

Han  
Eco

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han-Eco®, Screw termination, With wire protection, Contact surface: Silver plated	0.75 ... 2.5	19 41 014 2601	19 41 014 2701	<p>Tightening torque 0.5 Nm</p>

Number of contacts

# 20+

16 A 500 V 6 kV 3

Han  
Eco

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han-Eco®, Screw termination, With wire protection, Contact surface: Silver plated</p>	0.75 ... 2.5	19 41 020 2601	19 41 020 2701	<p>Tightening torque 0.5 Nm</p>

Number of contacts

# 28+

16 A 500 V 6 kV 3

Han  
Eco

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han-Eco®, Screw termination, With wire protection, Contact surface: Silver plated	0.75 ... 2.5	19 41 028 2601	19 41 028 2701	<p>Tightening torque 0.5 Nm</p>

## Features

- With integrated cable gland
- Optional PE contact module to hold the protective ground conductor
- Suitable for applications according to protection class II

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Number of relockings	≥500
Degree of protection acc. to IEC 60529	IP65
Material (hood/housing)	Polyamide (PA), Fibre-glass reinforced
Colour (hood/housing)	RAL 9005 (jet black)
Material (seal)	NBR
Colour (seal)	RAL 9005 (jet black)
Material (locking)	Polyamide (PA), Fibre-glass reinforced
Colour (locking)	RAL 9005 (jet black)
Material flammability class acc. to UL 94	V-0
Material flammability class acc. to UL 94 (locking levers)	V-0
RoHS	compliant

## Specifications and approvals

IEC 61984  
 EN 45545-2 R22: HL1, HL2, HL3  
 EN 45545-2 R23: HL1, HL2, HL3  
 EN 45545-2 R24: HL1, HL2, HL3  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076




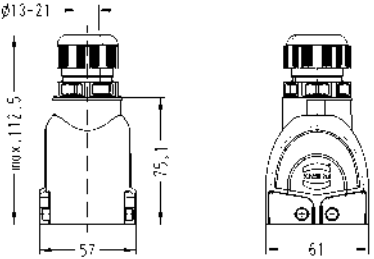

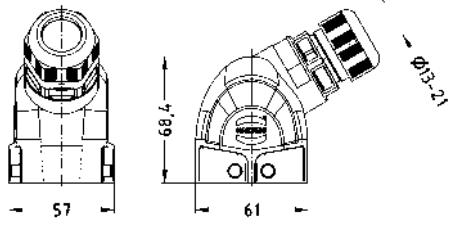

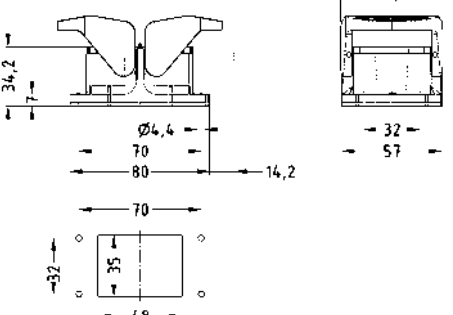
## Details

Assembly dimensions are identical for the Han® B bulkhead mounted housings - not mating compatible with the hoods and housings of the series Han® B.

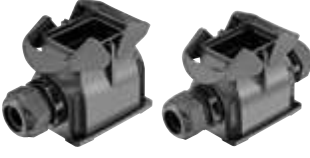
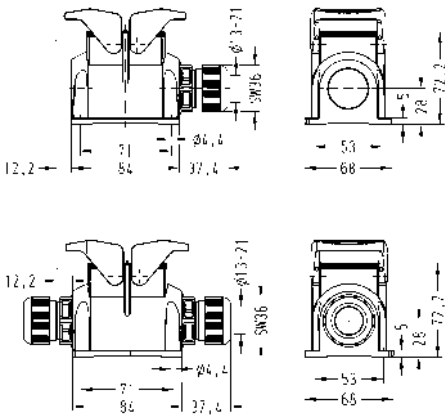

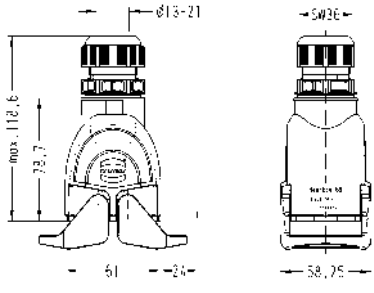

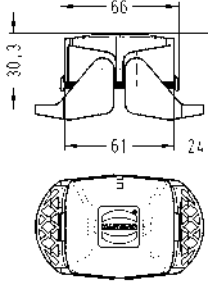

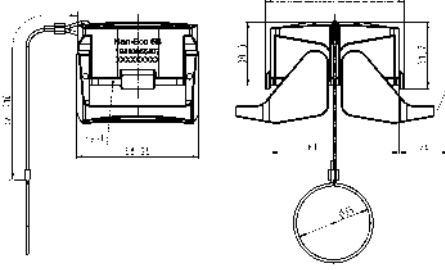
Size	Module slots
6 B	3
10 B	4
16 B	5
24 B	7


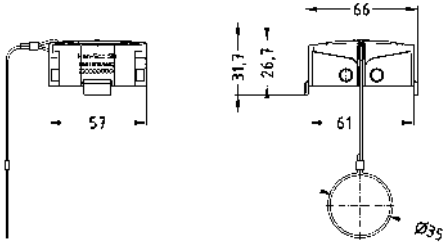

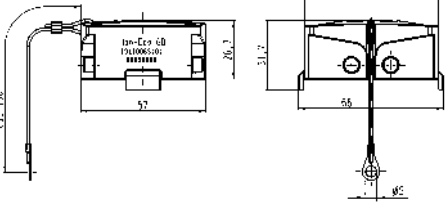

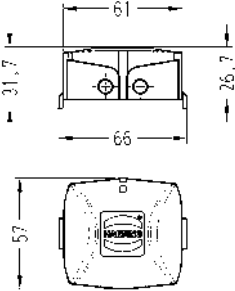
Double locking lever

Han Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Han-Eco® Modular, Hood, With integrated cable gland, Top entry, IP65 	1x M32 1x M40	13 ... 21 16 ... 28	19 41 106 0422 19 41 106 0423	
Han-Eco® Modular, Hood, With integrated cable gland, Side entry, IP65 	1x M32	13 ... 21	19 41 106 0522	
Han-Eco® Modular, Bulkhead mounted housing, IP65 			19 41 006 0301	 <p>Panel cut out</p>


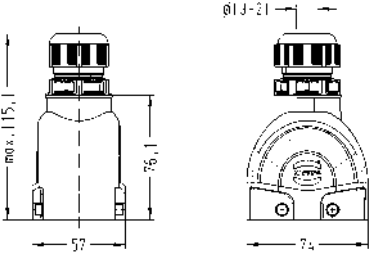

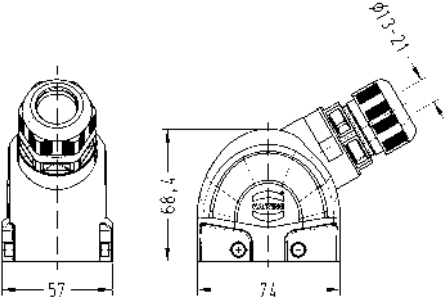

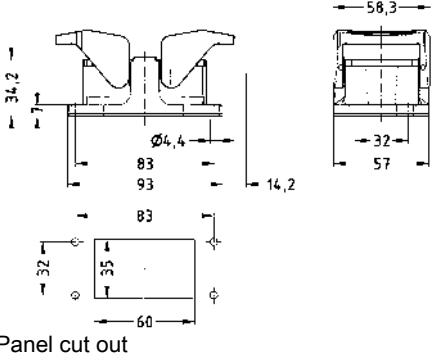
Han Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® Modular, Surface mounted housing, With integrated cable gland, Side entry, IP65</p> 	<p>1x M32 2x M32</p>	<p>13 ... 21 13 ... 21</p>	<p>19 41 106 0232 19 41 106 0272</p>	
<p>Han-Eco® Modular, Cable to cable housing, With integrated cable gland, Top entry, IP65</p> 	<p>1x M32 1x M40</p>	<p>13 ... 21 16 ... 28</p>	<p>19 41 106 0722 19 41 106 0723</p>	
<p>Han-Eco® Modular, Protection cover, for hoods, IP65</p> 			<p>19 41 006 5406</p>	
<p>Han-Eco® Modular, Protection cover, for hoods, With fixing cord (loop), IP65</p> 			<p>19 41 006 5407</p>	

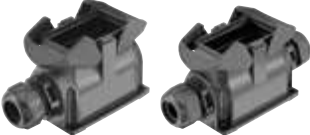
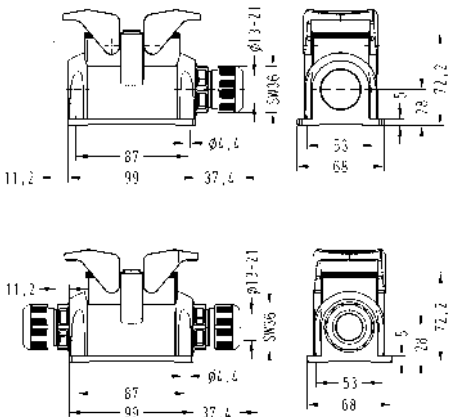

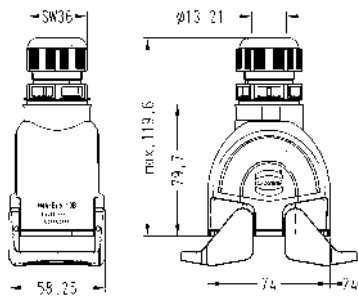

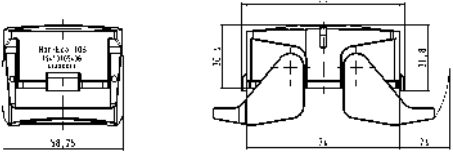

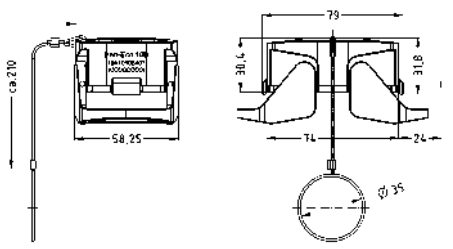

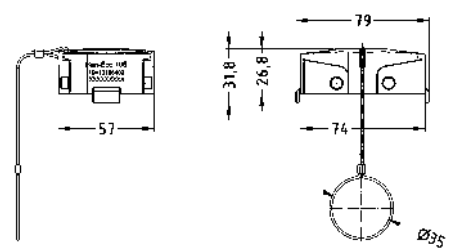
Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® Modular, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, With fixing cord (loop), IP65</p> 			19 41 006 5402	
<p>Han-Eco® Modular, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, With fixing cord (cable shoe), IP65</p> 			19 41 006 5404	
<p>Han-Eco® Modular, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, IP65</p> 			19 41 006 5405	

Double locking lever


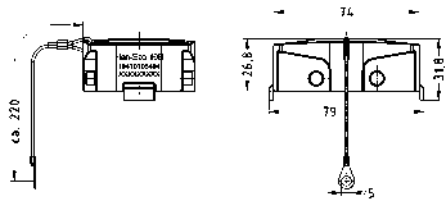

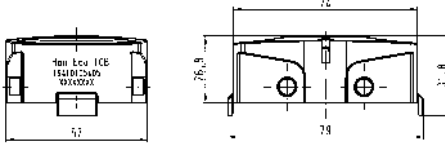
Han  
Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® Modular, Hood, With integrated cable gland, Top entry, IP65</p> 	<p>1x M32</p>	<p>13 ... 21</p>	<p>19 41 110 0422</p>	
<p>Han-Eco® Modular, Hood, With integrated cable gland, Side entry, IP65</p> 	<p>1x M32</p>	<p>13 ... 21</p>	<p>19 41 110 0522</p>	
<p>Han-Eco® Modular, Bulkhead mounted housing, IP65</p> 			<p>19 41 010 0301</p>	 <p>Panel cut out</p>




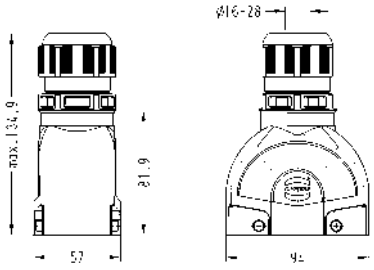

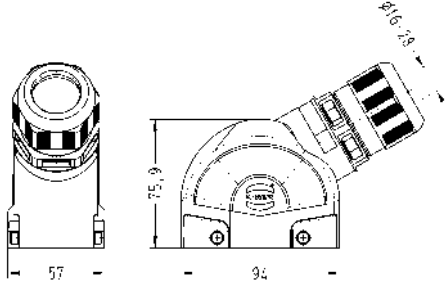

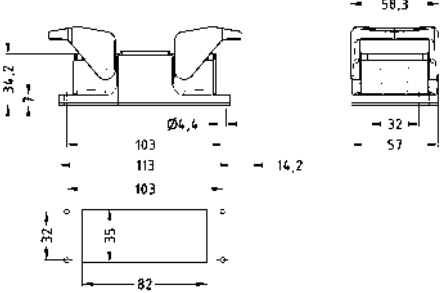
Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® Modular, Surface mounted housing, With integrated cable gland, Side entry, IP65</p> 	<p>1x M32 2x M32</p>	<p>13 ... 21 13 ... 21</p>	<p>19 41 110 0232 19 41 110 0272</p>	
<p>Han-Eco® Modular, Cable to cable housing, With integrated cable gland, Top entry, IP65</p> 	<p>1x M32</p>	<p>13 ... 21</p>	<p>19 41 110 0722</p>	
<p>Han-Eco® Modular, Protection cover, for hoods, IP65</p> 			<p>19 41 010 5406</p>	
<p>Han-Eco® Modular, Protection cover, for hoods, With fixing cord (loop), IP65</p> 			<p>19 41 010 5407</p>	
<p>Han-Eco® Modular, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, With fixing cord (loop), IP65</p> 			<p>19 41 010 5402</p>	

Han  
Eco


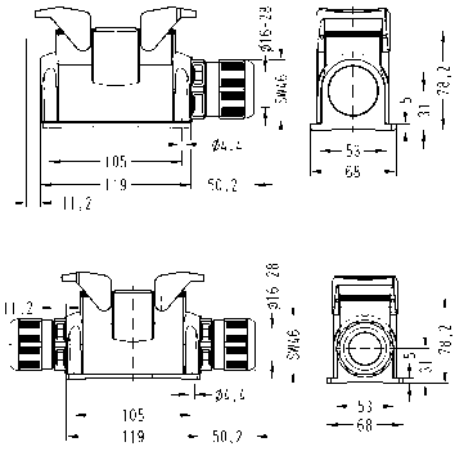

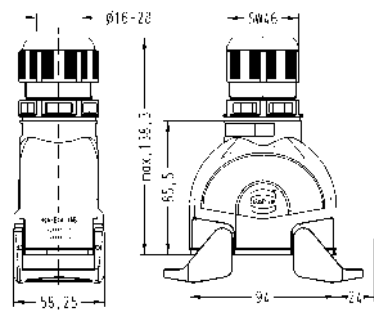

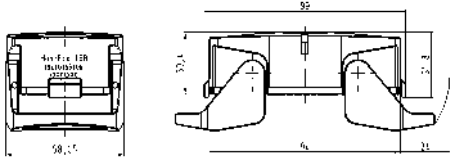

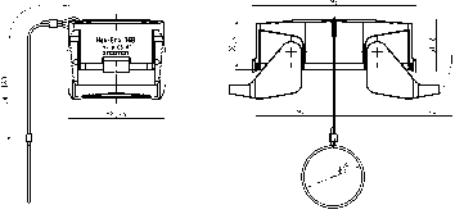

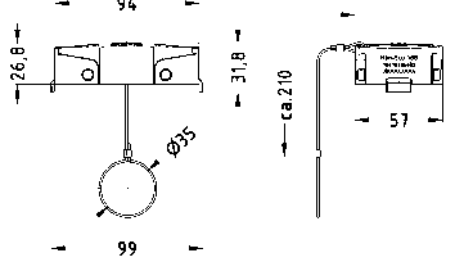
Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® Modular, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, With fixing cord (cable shoe), IP65</p> 			19 41 010 5404	
<p>Han-Eco® Modular, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, IP65</p> 			19 41 010 5405	


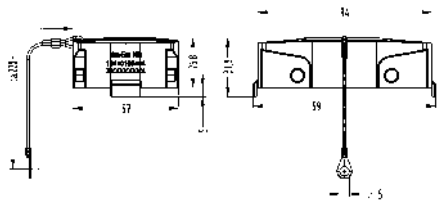

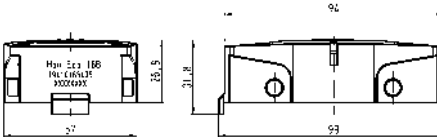
Double locking lever

Han  
Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Han-Eco® Modular, Hood, With integrated cable gland, Top entry, IP65  	1x M40	16 ... 28	19 41 116 0423	
Han-Eco® Modular, Hood, With integrated cable gland, Side entry, IP65  	1x M40	16 ... 28	19 41 116 0523	
Han-Eco® Modular, Bulkhead mounted housing, IP65  			19 41 016 0301	 <p>Panel cut out</p>


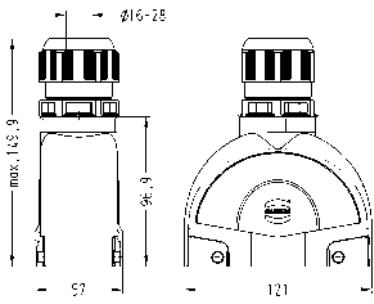

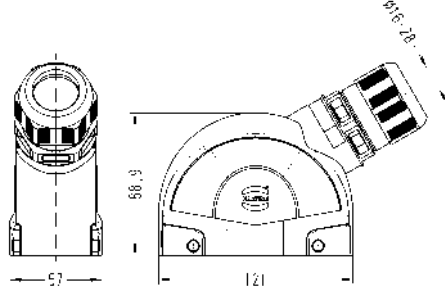

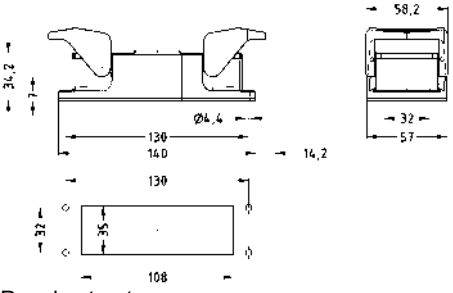
Han Eco


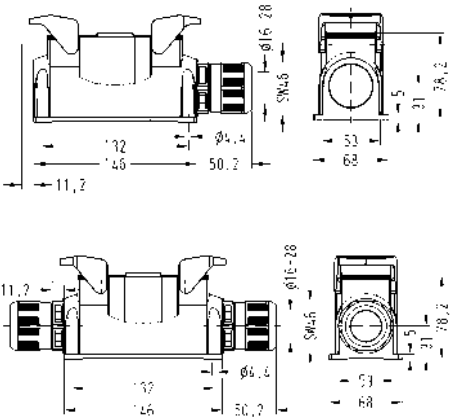

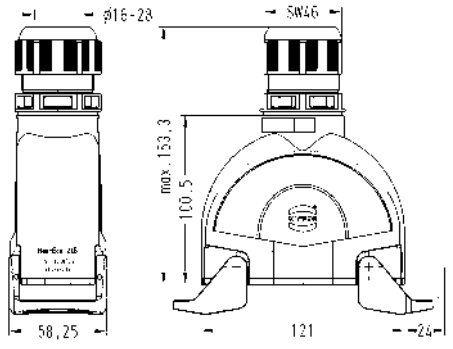

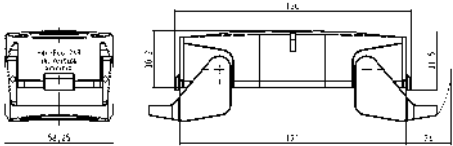

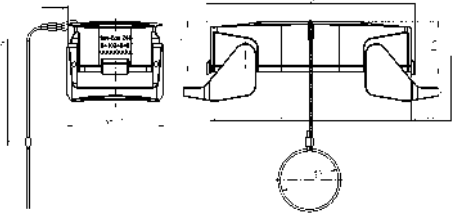

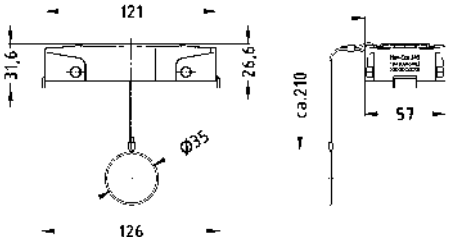
Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® Modular, Surface mounted housing, With integrated cable gland, Side entry, IP65</p> 	<p>1x M40 2x M40</p>	<p>16 ... 28 16 ... 28</p>	<p>19 41 116 0233 19 41 116 0273</p>	
<p>Han-Eco® Modular, Cable to cable housing, With integrated cable gland, Top entry, IP65</p> 	<p>1x M40</p>	<p>16 ... 28</p>	<p>19 41 116 0723</p>	
<p>Han-Eco® Modular, Protection cover, for hoods, IP65</p> 			<p>19 41 016 5406</p>	
<p>Han-Eco® Modular, Protection cover, for hoods, With fixing cord (loop), IP65</p> 			<p>19 41 016 5407</p>	
<p>Han-Eco® Modular, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, With fixing cord (loop), IP65</p> 			<p>19 41 016 5402</p>	

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® Modular, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, With fixing cord (cable shoe), IP65</p> 			19 41 016 5404	
<p>Han-Eco® Modular, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, IP65</p> 			19 41 016 5405	


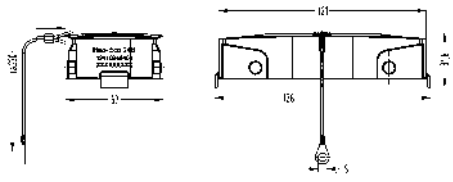

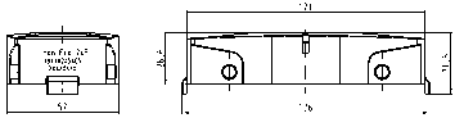
Double locking lever

Han  
Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Han-Eco® Modular, Hood, With integrated cable gland, Top entry, IP65  	1x M40	16 ... 28	19 41 124 0423	
Han-Eco® Modular, Hood, With integrated cable gland, Side entry, IP65  	1x M40	16 ... 28	19 41 124 0523	
Han-Eco® Modular, Bulkhead mounted housing, IP65  			19 41 024 0301	 <p>Panel cut out</p>

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® Modular, Surface mounted housing, With integrated cable gland, Side entry, IP65</p> 	<p>1x M40 2x M40</p>	<p>16 ... 28 16 ... 28</p>	<p>19 41 124 0233 19 41 124 0273</p>	
<p>Han-Eco® Modular, Cable to cable housing, With integrated cable gland, Top entry, IP65</p> 	<p>1x M40</p>	<p>16 ... 28</p>	<p>19 41 124 0723</p>	
<p>Han-Eco® Modular, Protection cover, for hoods, IP65</p> 			<p>19 41 024 5406</p>	
<p>Han-Eco® Modular, Protection cover, for hoods, With fixing cord (loop), IP65</p> 			<p>19 41 024 5407</p>	
<p>Han-Eco® Modular, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, With fixing cord (loop), IP65</p> 			<p>19 41 024 5402</p>	

Han  
Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® Modular, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, With fixing cord (cable shoe), IP65</p> 			19 41 024 5404	
<p>Han-Eco® Modular, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, IP65</p> 			19 41 024 5405	



## Features

- With integrated cable gland
- Optional PE contact module to hold the protective ground conductor
- Suitable for applications according to protection class II

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Number of relockings	≥500
Degree of protection acc. to IEC 60529	IP65
Material (hood/housing)	Polyamide (PA), Fibre-glass reinforced
Colour (hood/housing)	RAL 9005 (jet black)
Material (seal)	FPM
Colour (seal)	RAL 7001 (silver-grey)
Material (locking)	Polyamide (PA), Fibre-glass reinforced
Colour (locking)	RAL 9005 (jet black)
Material flammability class acc. to UL 94	V-0
Material flammability class acc. to UL 94 (locking levers)	V-0
RoHS	compliant

## Specifications and approvals

IEC 61984  
 EN 45545-2 R22: HL1, HL2, HL3  
 EN 45545-2 R23: HL1, HL2, HL3  
 EN 45545-2 R24: HL1, HL2, HL3  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076




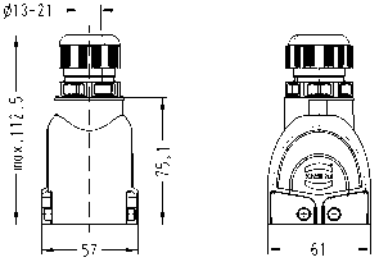

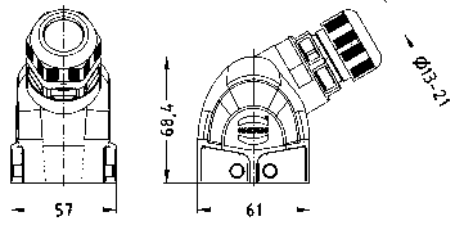

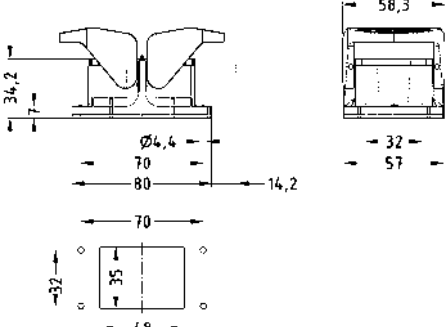
## Details






Assembly dimensions are identical for the Han® B bulkhead mounted housings - not mating compatible with the hoods and housings of the series Han® B.

Size	Module slots
6 B	3
10 B	4
16 B	5
24 B	7

Double locking lever


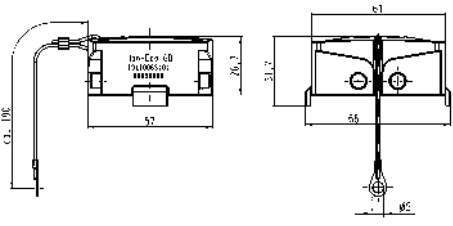

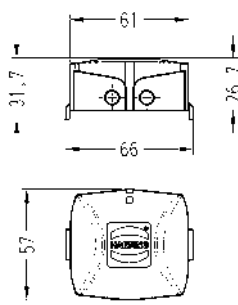
Han  
Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Han-Eco® Modular, Hood, With integrated cable gland, Top entry, IP65 	1x M32 1x M40	13 ... 21 16 ... 28	19 41 106 0422 19 41 106 0423	
Han-Eco® Modular, Hood, With integrated cable gland, Side entry, IP65 	1x M32	13 ... 21	19 41 106 0522	
Han-Eco® Modular, Bulkhead mounted housing, IP65 			19 41 206 0301	 <p>Panel cut out</p>

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Han-Eco® Modular, Surface mounted housing, With integrated cable gland, Side entry, IP65 	1x M32 2x M32	13 ... 21 13 ... 21	19 41 306 0232 19 41 306 0272	
Han-Eco® Modular, Cable to cable housing, With integrated cable gland, Top entry, IP65 	1x M32	13 ... 21	19 41 306 0722	
Han-Eco® Modular, Protection cover, for hoods, IP65 			19 41 206 5406	
Han-Eco® Modular, Protection cover, for hoods, With fixing cord (loop), IP65 			19 41 206 5407	
Han-Eco® Modular, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, With fixing cord (loop), IP65 			19 41 006 5402	


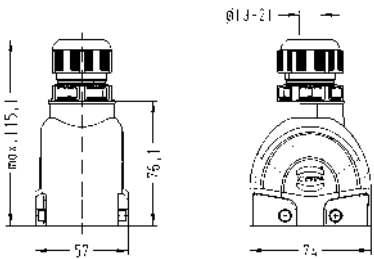

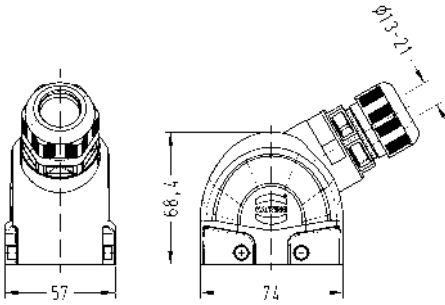

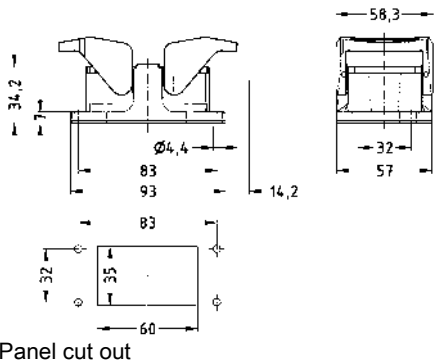


Han  
Eco


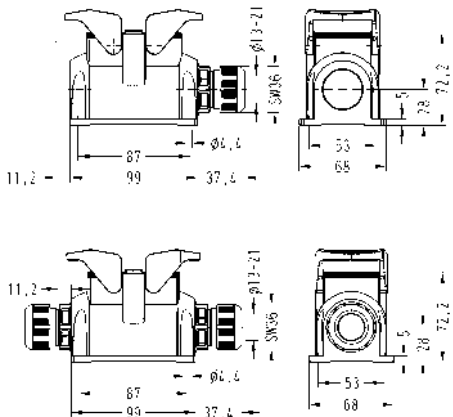

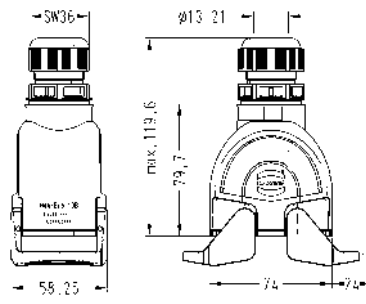

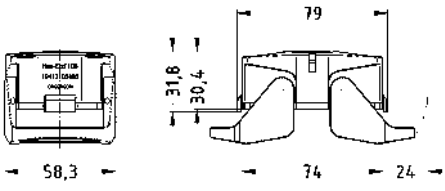

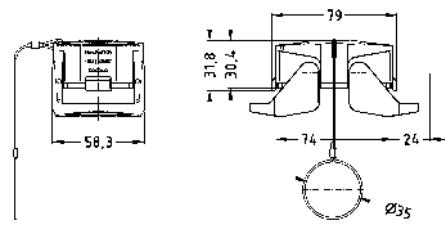

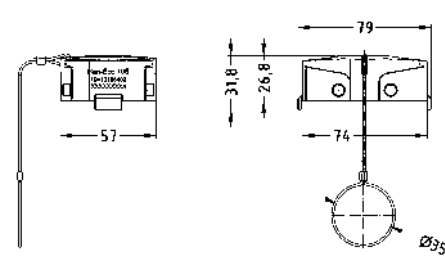
Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® Modular, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, With fixing cord (cable shoe), IP65</p> 			19 41 006 5404	
<p>Han-Eco® Modular, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, IP65</p> 			19 41 006 5405	


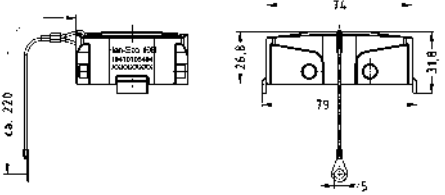

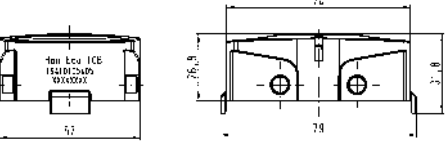
Double locking lever

Han  
Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Han-Eco® Modular, Hood, With integrated cable gland, Top entry, IP65 	1x M32	13 ... 21	19 41 110 0422	
Han-Eco® Modular, Hood, With integrated cable gland, Side entry, IP65 	1x M32	13 ... 21	19 41 110 0522	
Han-Eco® Modular, Bulkhead mounted housing, IP65 			19 41 210 0301	 <p>Panel cut out</p>


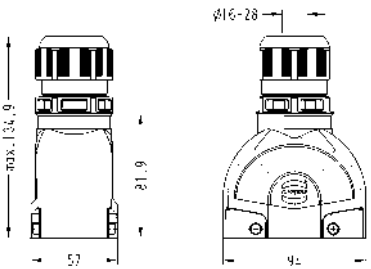

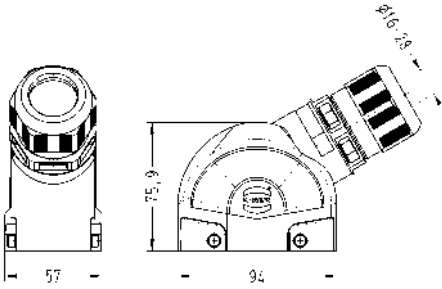

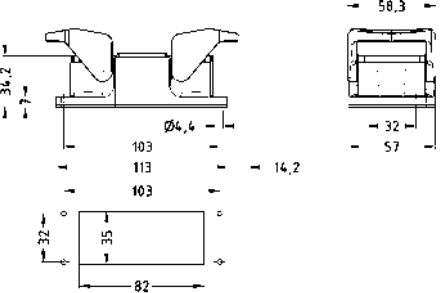
Han Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® Modular, Surface mounted housing, With integrated cable gland, Side entry, IP65</p> 	<p>1x M32 2x M32</p>	<p>13 ... 21 13 ... 21</p>	<p>19 41 310 0232 19 41 310 0272</p>	
<p>Han-Eco® Modular, Cable to cable housing, With integrated cable gland, Top entry, IP65</p> 	<p>1x M32</p>	<p>13 ... 21</p>	<p>19 41 310 0722</p>	
<p>Han-Eco® Modular, Protection cover, for hoods, IP65</p> 			<p>19 41 210 5406</p>	
<p>Han-Eco® Modular, Protection cover, for hoods, With fixing cord (loop), IP65</p> 			<p>19 41 210 5407</p>	
<p>Han-Eco® Modular, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, With fixing cord (loop), IP65</p> 			<p>19 41 010 5402</p>	


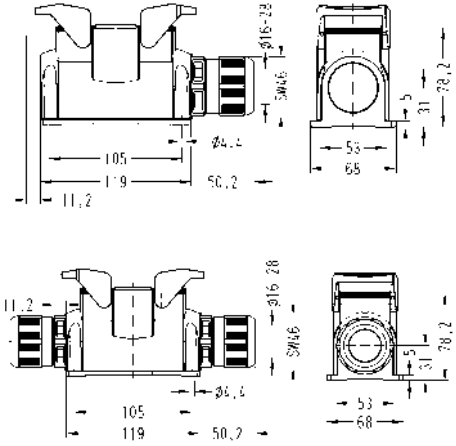

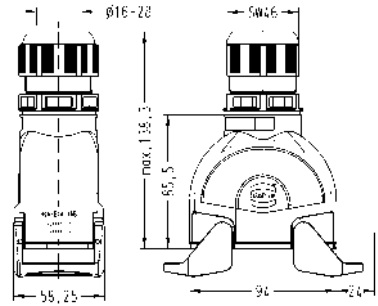


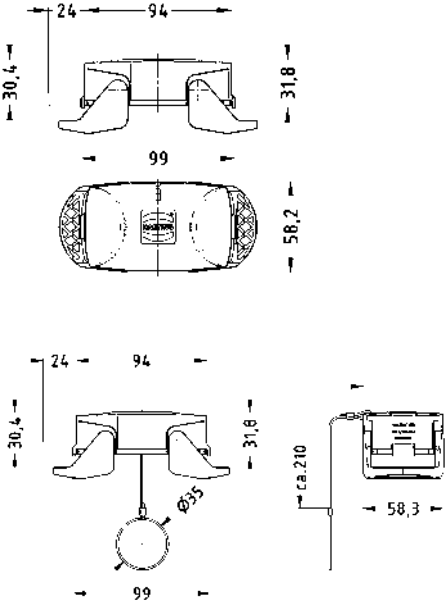
Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® Modular, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, With fixing cord (cable shoe), IP65</p> 			19 41 010 5404	
<p>Han-Eco® Modular, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, IP65</p> 			19 41 010 5405	

Double locking lever


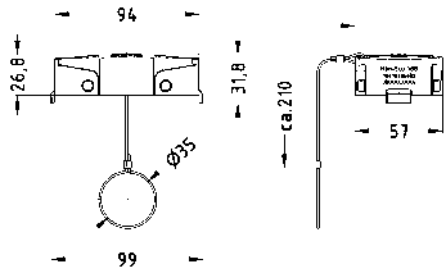

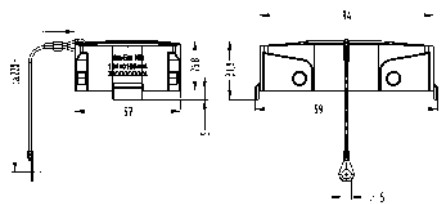

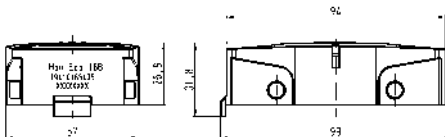
Han  
Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Han-Eco® Modular, Hood, With integrated cable gland, Top entry, IP65 	1x M40	16 ... 28	19 41 116 0423	
Han-Eco® Modular, Hood, With integrated cable gland, Side entry, IP65 	1x M40	16 ... 28	19 41 116 0523	
Han-Eco® Modular, Bulkhead mounted housing, IP65 			19 41 216 0301	 <p>Panel cut out</p>




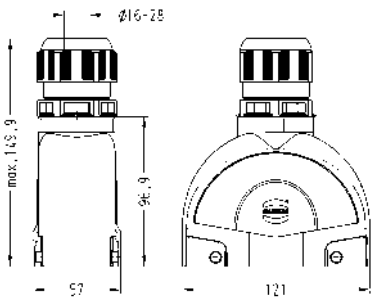

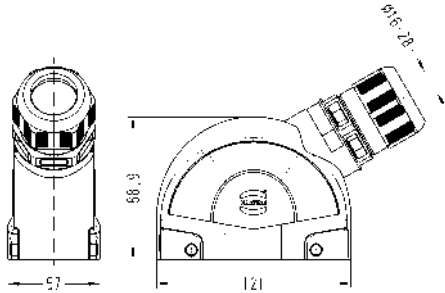

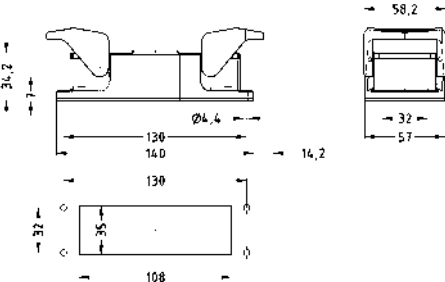
Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® Modular, Surface mounted housing, With integrated cable gland, Side entry, IP65</p> 	<p>1x M40 2x M40</p>	<p>16 ... 28 16 ... 28</p>	<p>19 41 316 0233 19 41 316 0273</p>	
<p>Han-Eco® Modular, Cable to cable housing, With integrated cable gland, Top entry, IP65</p> 	<p>1x M40</p>	<p>16 ... 28</p>	<p>19 41 316 0723</p>	
<p>Han-Eco® Modular, Protection cover, for hoods, IP65</p>  <p>Han-Eco® Modular, Protection cover, for hoods, With fixing cord (loop), IP65</p> 			<p>19 41 216 5406</p> <p>19 41 216 5407</p>	

Han Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® Modular, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, With fixing cord (loop), IP65</p> 			19 41 016 5402	
<p>Han-Eco® Modular, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, With fixing cord (cable shoe), IP65</p> 			19 41 016 5404	
<p>Han-Eco® Modular, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, IP65</p> 			19 41 016 5405	


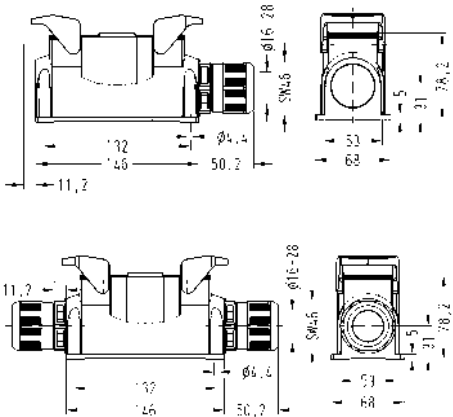

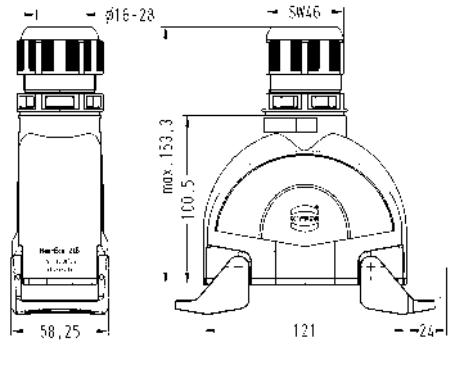



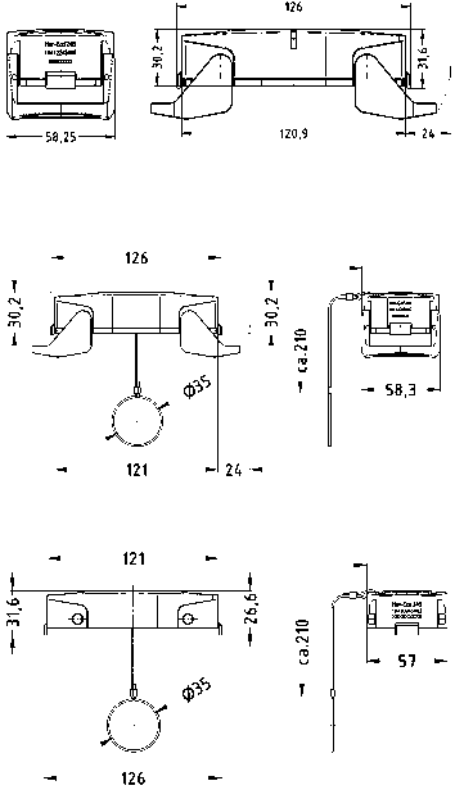
Double locking lever


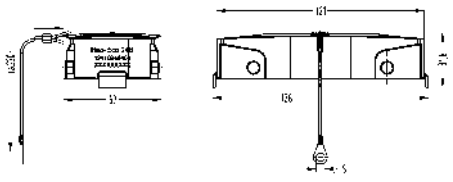

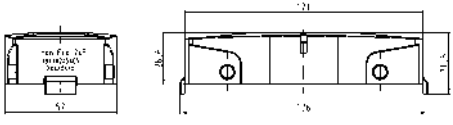
Han  
Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Han-Eco® Modular, Hood, With integrated cable gland, Top entry, IP65  	1x M40	16 ... 28	19 41 124 0423	
Han-Eco® Modular, Hood, With integrated cable gland, Side entry, IP65  	1x M40	16 ... 28	19 41 124 0523	
Han-Eco® Modular, Bulkhead mounted housing, IP65  			19 41 224 0301	 <p>Panel cut out</p>



Han Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® Modular, Surface mounted housing, With integrated cable gland, Side entry, IP65</p> 	<p>1x M40 2x M40</p>	<p>16 ... 28 16 ... 28</p>	<p>19 41 324 0233 19 41 324 0273</p>	
<p>Han-Eco® Modular, Cable to cable housing, With integrated cable gland, Top entry, IP65</p> 	<p>1x M40</p>	<p>16 ... 28</p>	<p>19 41 324 0723</p>	
<p>Han-Eco® Modular, Protection cover, for hoods, IP65</p>  <p>Han-Eco® Modular, Protection cover, for hoods, With fixing cord (loop), IP65</p>  <p>Han-Eco® Modular, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, With fixing cord (loop), IP65</p> 			<p>19 41 224 5406  19 41 224 5407  19 41 024 5402</p>	

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® Modular, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, With fixing cord (cable shoe), IP65</p> 			19 41 024 5404	
<p>Han-Eco® Modular, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, IP65</p> 			19 41 024 5405	

## Features

- With integrated cable gland
- Suitable for applications according to protection class I

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Number of relockings	≥500
Degree of protection acc. to IEC 60529	IP65
Material (hood/housing)	Polyamide (PA), Fibre-glass reinforced
Colour (hood/housing)	RAL 9005 (jet black)
Material (seal)	NBR
Colour (seal)	RAL 9005 (jet black)
Material (locking)	Polyamide (PA), Fibre-glass reinforced
Colour (locking)	RAL 9005 (jet black)
Material flammability class acc. to UL 94	V-0
Material flammability class acc. to UL 94 (locking levers)	V-0
RoHS	compliant with exemption, compliant

## Specifications and approvals

IEC 61984  
 EN 45545-2 R22: HL1, HL2, HL3  
 EN 45545-2 R23: HL1, HL2, HL3  
 EN 45545-2 R24: HL1, HL2, HL3




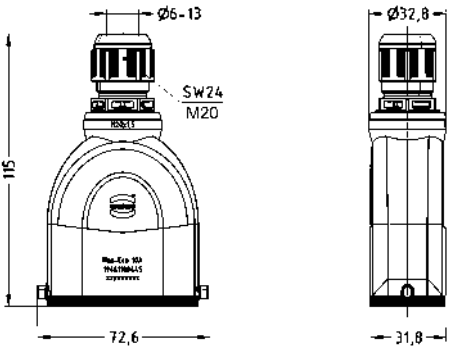

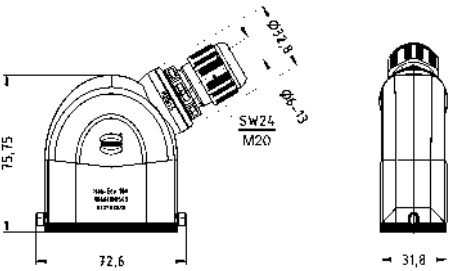

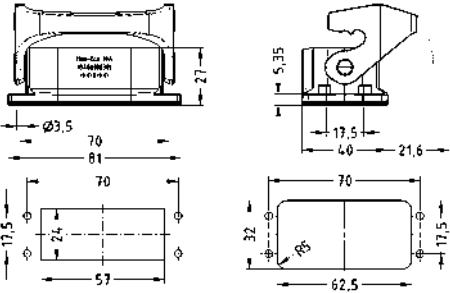
## Details

Assembly dimensions are identical for the Han® A bulkhead and surface mounted housings – mating compatible with all metal hoods and housings of the series Han® A.


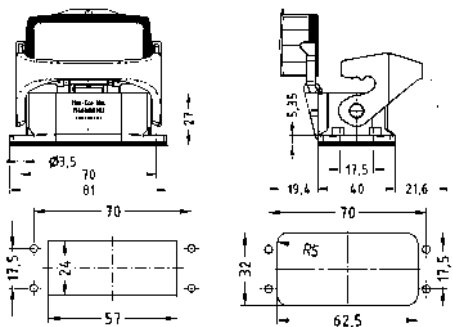

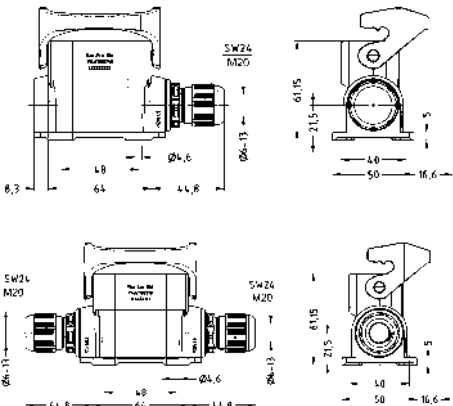

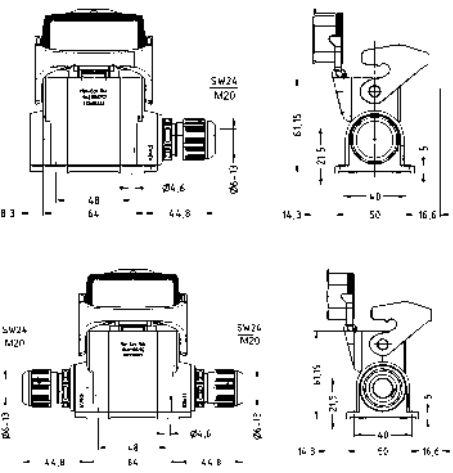
As an option a larger panel cut out for the rear assembly of the bulkhead mounted housings is possible.

Single locking lever


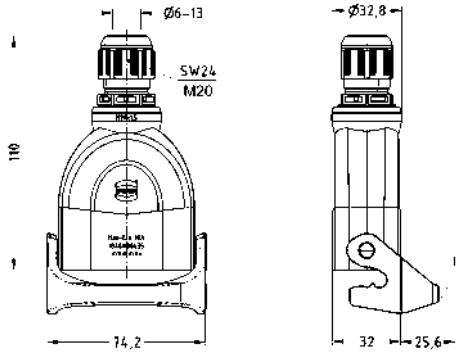

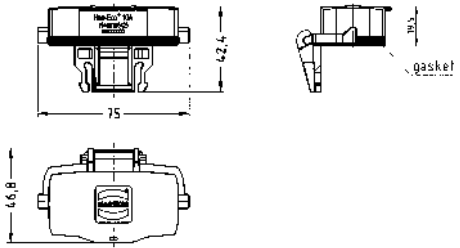
Han  
Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® A, Hood, With integrated cable gland, Top entry, IP65</p> 	<p>1x M20 1x M25</p>	<p>6 ... 13 9 ... 17</p>	<p>19 46 110 0445 19 46 110 0446</p>	
<p>Han-Eco® A, Hood, With integrated cable gland, Side entry, IP65</p> 	<p>1x M20 1x M25</p>	<p>6 ... 13 9 ... 17</p>	<p>19 46 110 0545 19 46 110 0546</p>	
<p>Han-Eco® A, Bulkhead mounted housing, IP65</p> 			<p>19 46 010 0301</p>	 <p>Panel cut out Front mounting / Rear mounting</p>

Han Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® A, Bulkhead mounted housing, With thermo-plastic cover, IP65</p> 			19 46 010 0302	 <p>Panel cut out Front mounting / Rear mounting</p>
<p>Han-Eco® A, Surface mounted housing, With integrated cable gland, Side entry, IP65</p> 	1x M20 1x M25 2x M20 2x M25	6 ... 13 9 ... 17 6 ... 13 9 ... 17	19 46 110 0250 19 46 110 0251 19 46 110 0290 19 46 110 0291	
<p>Han-Eco® A, Surface mounted housing, With thermo-plastic cover, With integrated cable gland, Side entry, IP65</p> 	1x M20 1x M25 2x M20 2x M25	6 ... 13 9 ... 17 6 ... 13 9 ... 17	19 46 110 0252 19 46 110 0253 19 46 110 0292 19 46 110 0293	




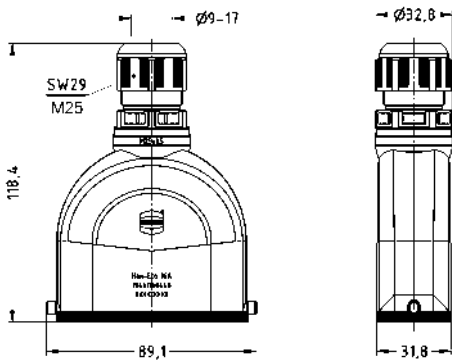

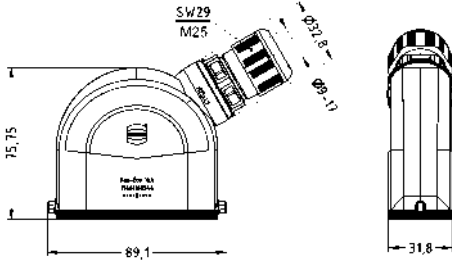

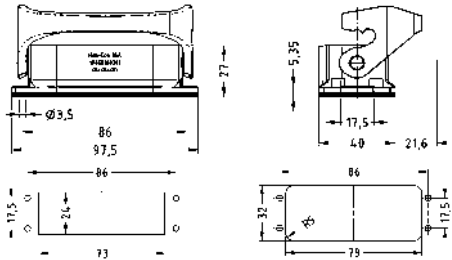
Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® A, Cable to cable housing, With integrated cable gland, Top entry, IP65</p> 	<p>1x M20 1x M25</p>	<p>6 ... 13 9 ... 17</p>	<p>19 46 110 0435 19 46 110 0436</p>	
<p>Han-Eco® A, Protection cover, for bulkhead mounted housings, for surface mounted housings, IP65</p> 			<p>19 46 010 5425</p>	


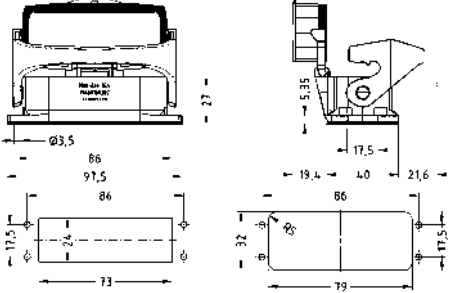

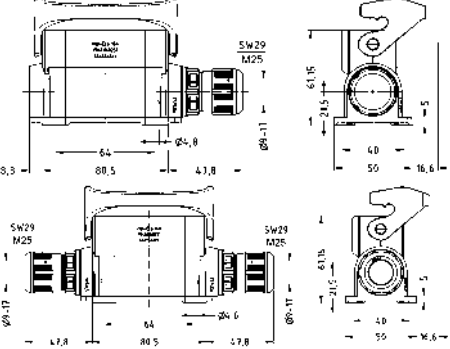

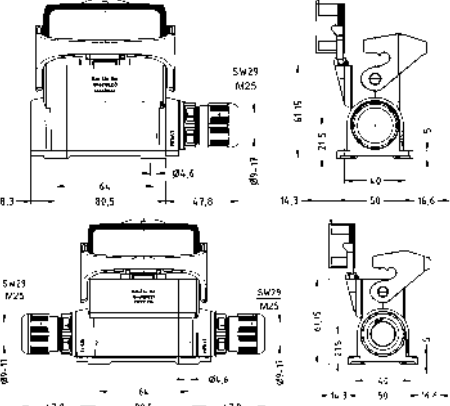

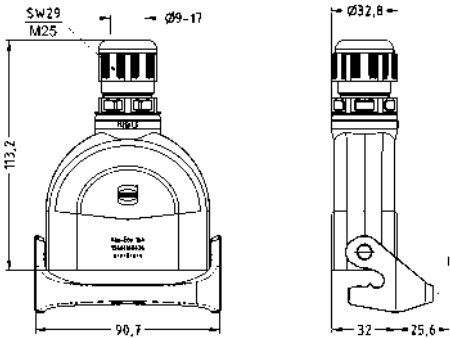
Han Eco

Single locking lever




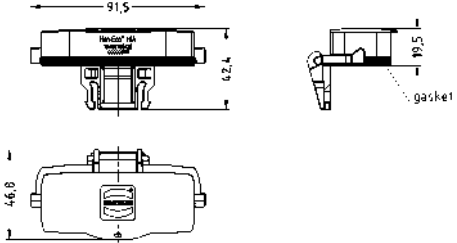
Han  
Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Han-Eco® A, Hood, With integrated cable gland, Top entry, IP65  	1x M20 1x M25	6 ... 13 9 ... 17	19 46 116 0445 19 46 116 0446	
Han-Eco® A, Hood, With integrated cable gland, Side entry, IP65  	1x M20 1x M25	6 ... 13 9 ... 17	19 46 116 0545 19 46 116 0546	
Han-Eco® A, Bulkhead mounted housing, IP65  			19 46 016 0301	 <p>Panel cut out Front mounting / Rear mounting</p>

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® A, Bulkhead mounted housing, With thermo-plastic cover, IP65</p> 			19 46 016 0302	 <p>Panel cut out Front mounting / Rear mounting</p>
<p>Han-Eco® A, Surface mounted housing, With integrated cable gland, Side entry, IP65</p> 	1x M20 1x M25 2x M20 2x M25	6 ... 13 9 ... 17 6 ... 13 9 ... 17	19 46 116 0250 19 46 116 0251 19 46 116 0290 19 46 116 0291	
<p>Han-Eco® A, Surface mounted housing, With thermo-plastic cover, With integrated cable gland, Side entry, IP65</p> 	1x M20 1x M25 2x M20 2x M25	6 ... 13 9 ... 17 6 ... 13 9 ... 17	19 46 116 0252 19 46 116 0253 19 46 116 0292 19 46 116 0293	
<p>Han-Eco® A, Cable to cable housing, With integrated cable gland, Top entry, IP65</p> 	1x M20 1x M25	6 ... 13 9 ... 17	19 46 116 0435 19 46 116 0436	



Han  
Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® A, Protection cover, for bulkhead mounted housings, for surface mounted housings, IP65</p> 			19 46 016 5425	

## Features

- With integrated cable gland
- Suitable for applications according to protection class I

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Number of relockings	≥500
Degree of protection acc. to IEC 60529	IP65
Material (hood/housing)	Polyamide (PA), Fibre-glass reinforced
Colour (hood/housing)	RAL 9005 (jet black)
Material (seal)	FPM
Colour (seal)	RAL 7001 (silver-grey)
Material (locking)	Polyamide (PA), Fibre-glass reinforced
Colour (locking)	RAL 9005 (jet black)
Material flammability class acc. to UL 94	V-0
Material flammability class acc. to UL 94 (locking levers)	V-0
RoHS	compliant with exemption, compliant

## Specifications and approvals

IEC 61984  
 EN 45545-2 R22: HL1, HL2, HL3  
 EN 45545-2 R23: HL1, HL2, HL3  
 EN 45545-2 R24: HL1, HL2, HL3



## Details


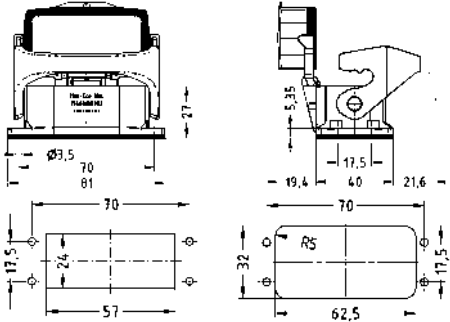

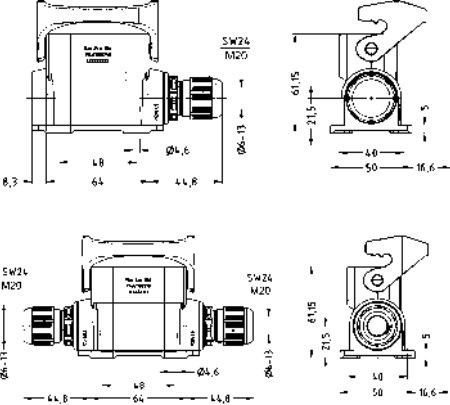

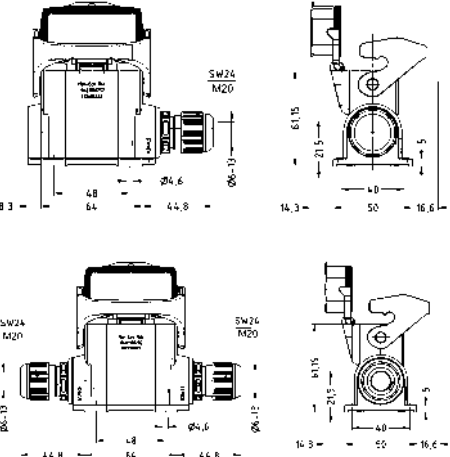
Assembly dimensions are identical for the Han® A bulkhead and surface mounted housings – mating compatible with all metal hoods and housings of the series Han® A.

As an option a larger panel cut out for the rear assembly of the bulkhead mounted housings is possible.


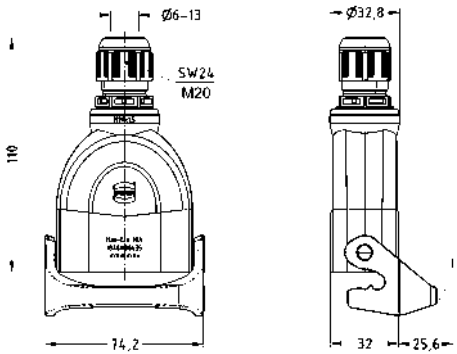

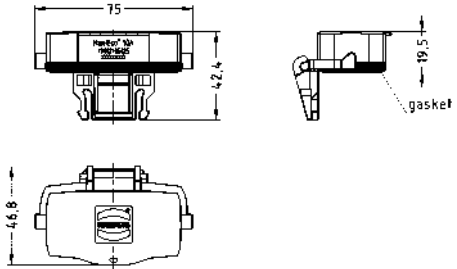
Single locking lever

Han  
Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Han-Eco® A, Hood, With integrated cable gland, Top entry, IP65	1x M20 1x M25	6 ... 13 9 ... 17	19 46 310 0445 19 46 310 0446	
Han-Eco® A, Hood, With integrated cable gland, Side entry, IP65	1x M20 1x M25	6 ... 13 9 ... 17	19 46 310 0545 19 46 310 0546	
Han-Eco® A, Bulkhead mounted housing, IP65			19 46 210 0301	<p>Panel cut out Front mounting / Rear mounting</p>

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® A, Bulkhead mounted housing, With thermo-plastic cover, IP65</p> 			19 46 210 0302	 <p>Panel cut out Front mounting / Rear mounting</p>
<p>Han-Eco® A, Surface mounted housing, With integrated cable gland, Side entry, IP65</p> 	<p>1x M20 1x M25 2x M20 2x M25</p>	<p>6 ... 13 9 ... 17 6 ... 13 9 ... 17</p>	<p>19 46 110 0250 19 46 110 0251 19 46 110 0290 19 46 110 0291</p>	
<p>Han-Eco® A, Surface mounted housing, With thermo-plastic cover, With integrated cable gland, Side entry, IP65</p> 	<p>1x M20 1x M25 2x M20 2x M25</p>	<p>6 ... 13 9 ... 17 6 ... 13 9 ... 17</p>	<p>19 46 310 0252 19 46 310 0253 19 46 310 0292 19 46 310 0293</p>	

Han  
Eco


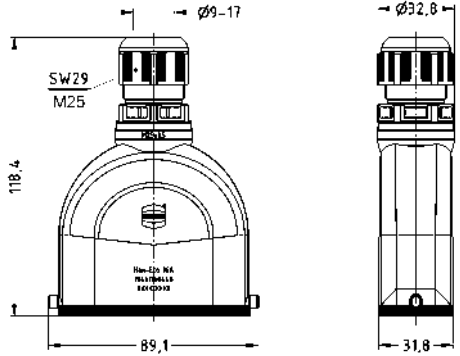

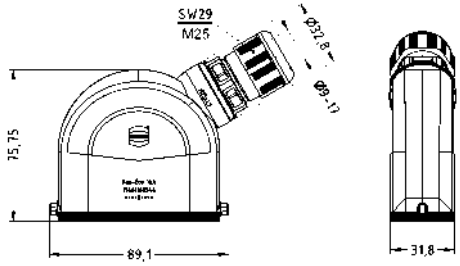

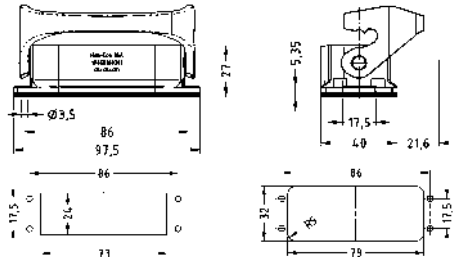
Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® A, Cable to cable housing, With integrated cable gland, Top entry, IP65</p> 	<p>1x M20 1x M25</p>	<p>6 ... 13 9 ... 17</p>	<p>19 46 110 0435 19 46 110 0436</p>	
<p>Han-Eco® A, Protection cover, for bulkhead mounted housings, for surface mounted housings, IP65</p> 			<p>19 46 210 5425</p>	




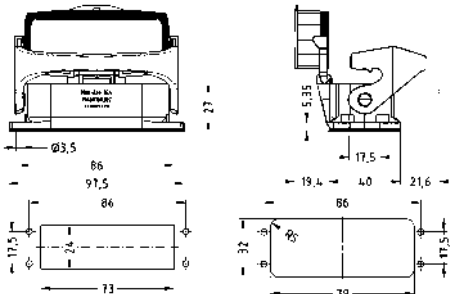

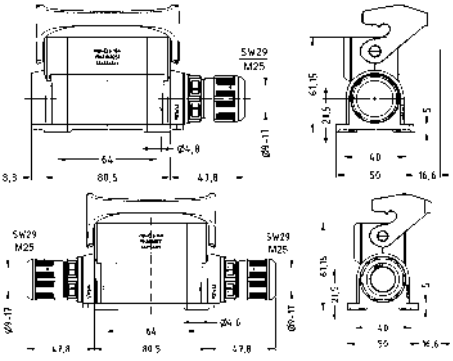

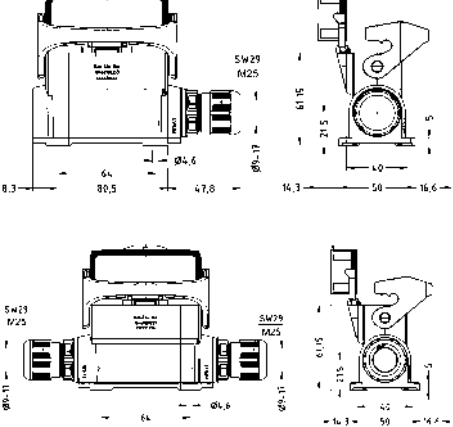

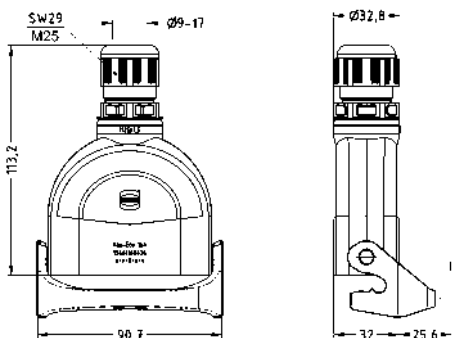
Single locking lever




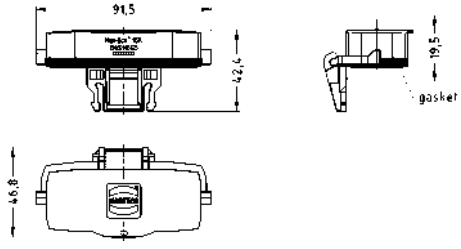
Han Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® A, Hood, With integrated cable gland, Top entry, IP65</p> 	<p>1x M20 1x M25</p>	<p>6 ... 13 9 ... 17</p>	<p>19 46 316 0445 19 46 316 0446</p>	
<p>Han-Eco® A, Hood, With integrated cable gland, Side entry, IP65</p> 	<p>1x M20 1x M25</p>	<p>6 ... 13 9 ... 17</p>	<p>19 46 316 0545 19 46 316 0546</p>	
<p>Han-Eco® A, Bulkhead mounted housing, IP65</p> 			<p>19 46 216 0301</p>	 <p>Panel cut out Front mounting / Rear mounting</p>

Han Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® A, Bulkhead mounted housing, With thermo-plastic cover, IP65</p> 			19 46 216 0302	 <p>Panel cut out Front mounting / Rear mounting</p>
<p>Han-Eco® A, Surface mounted housing, With integrated cable gland, Side entry, IP65</p> 	1x M20 1x M25 2x M20 2x M25	6 ... 13 9 ... 17 6 ... 13 9 ... 17	19 46 116 0250 19 46 116 0251 19 46 116 0290 19 46 116 0291	
<p>Han-Eco® A, Surface mounted housing, With thermo-plastic cover, With integrated cable gland, Side entry, IP65</p> 	1x M20 1x M25 2x M20 2x M25	6 ... 13 9 ... 17 6 ... 13 9 ... 17	19 46 316 0252 19 46 316 0253 19 46 316 0292 19 46 316 0293	
<p>Han-Eco® A, Cable to cable housing, With integrated cable gland, Top entry, IP65</p> 	1x M20 1x M25	6 ... 13 9 ... 17	19 46 116 0435 19 46 116 0436	



Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® A, Protection cover, for bulkhead mounted housings, for surface mounted housings, IP65</p> 			<p>19 46 216 5425</p>	

Han Eco

## Features

- Suitable for standard inserts and modules from the Han-Modular® portfolio
- With integrated cable gland
- Suitable for applications according to protection class I
- Minimal weight with excellent mechanical robustness

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Number of relockings	≥500
Degree of protection acc. to IEC 60529	IP66
Material (hood/housing)	Polyamide (PA), Fibre-glass reinforced
Colour (hood/housing)	RAL 9005 (jet black)
Material (seal)	NBR
Colour (seal)	RAL 9005 (jet black)
Material (locking)	Polyamide (PA), Fibre-glass reinforced
Colour (locking)	RAL 9005 (jet black)
Material flammability class acc. to UL 94	V-0
Material flammability class acc. to UL 94 (locking levers)	V-0
RoHS	compliant with exemption, compliant

## Specifications and approvals

IEC 61984  
 EN 45545-2 R22: HL1, HL2, HL3  
 EN 45545-2 R23: HL1, HL2, HL3  
 EN 45545-2 R24: HL1, HL2, HL3




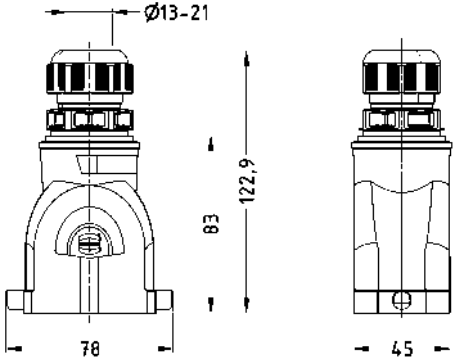

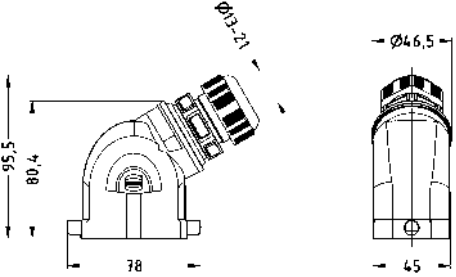

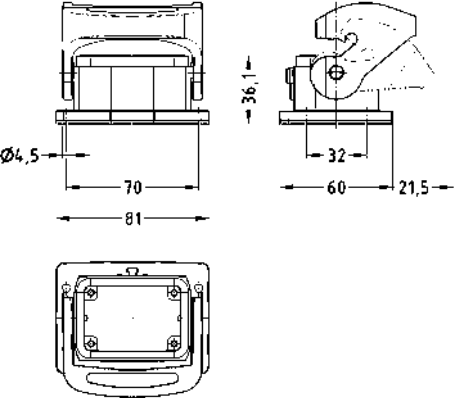
## Details

Mating compatible with all metal hoods and housings of the series Han® B.

As an option a larger panel cut out for the rear assembly of the bulkhead mounted housings is possible.

Single locking lever

Han  
Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Hood, With integrated cable gland, Top entry, IP66</p> 	<p>1x M20 1x M25 1x M32</p>	<p>6 ... 13 9 ... 17 13 ... 21</p>	<p>19 43 106 0445 19 43 106 0446 19 43 106 0447</p>	
<p>Han-Eco® B, Hood, With integrated cable gland, Side entry, IP66</p> 	<p>1x M20 1x M25 1x M32</p>	<p>6 ... 13 9 ... 17 13 ... 21</p>	<p>19 43 106 0545 19 43 106 0546 19 43 106 0547</p>	
<p>Han-Eco® B, Bulkhead mounted housing, IP66</p> 			<p>19 43 006 0340</p>	

Han Eco

Identification

Cable entry

Clamping range (mm)

Part number

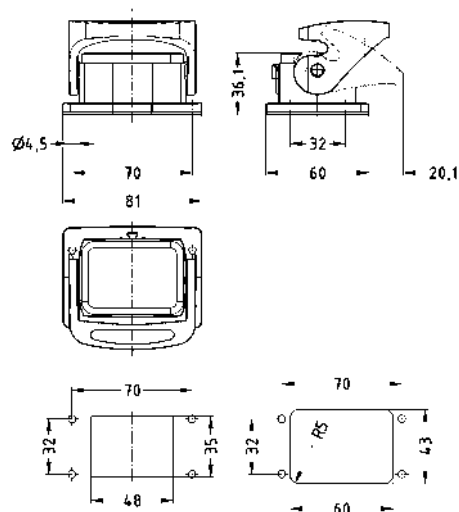
Drawing (dimensions in mm)

Han-Eco® B,  
Bulkhead mounted housing,  
Without frame,  
IP66



Please order frame 19 43 006 0001 separately.

19 43 006 0330

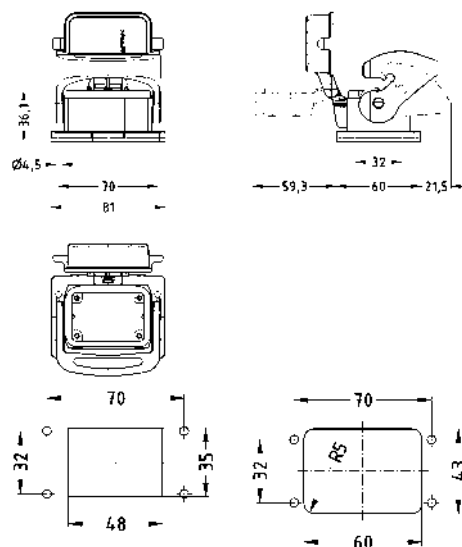


Panel cut out  
Front mounting / Rear mounting


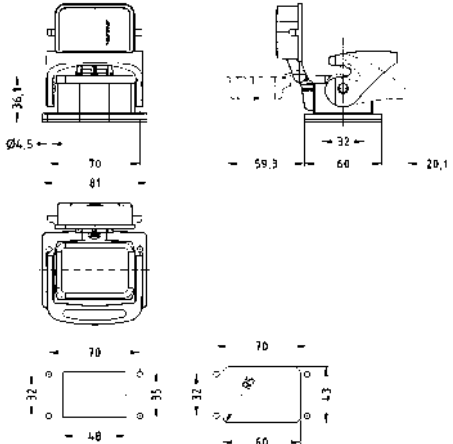

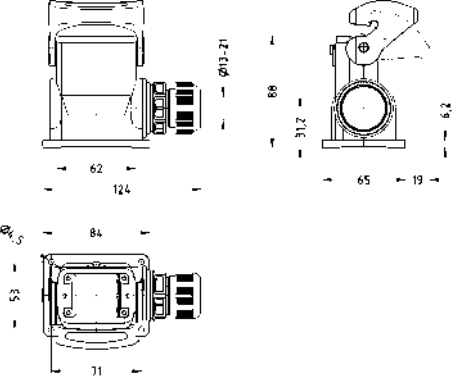

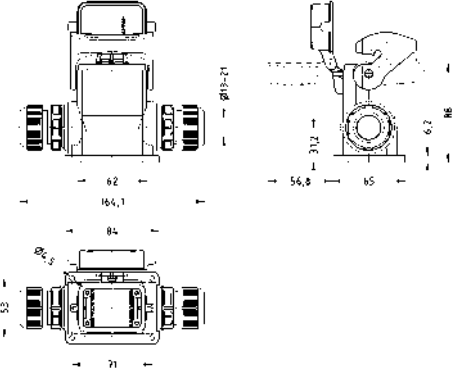
Han-Eco® B,  
Bulkhead mounted housing,  
With thermo-plastic cover,  
IP66



19 43 006 0341


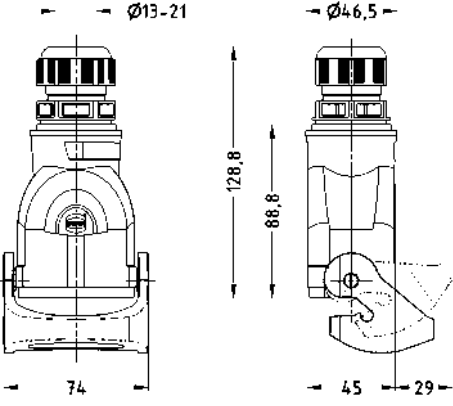



Panel cut out  
Front mounting / Rear mounting

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Bulkhead mounted housing, With thermo-plastic cover, Without frame, IP66</p>  <p>Please order frame 19 43 006 0001 separately.</p>			19 43 006 0331	 <p>Panel cut out Front mounting / Rear mounting</p>
<p>Han-Eco® B, Surface mounted housing, With integrated cable gland, Side entry, IP66</p> 	<p>1x M20 1x M25 1x M32 2x M20 2x M25 2x M32</p>	<p>6 ... 13 9 ... 17 13 ... 21 6 ... 13 9 ... 17 13 ... 21</p>	<p>19 43 106 0250 19 43 106 0251 19 43 106 0252 19 43 106 0290 19 43 106 0291 19 43 106 0292</p>	
<p>Han-Eco® B, Surface mounted housing, With thermo-plastic cover, With integrated cable gland, Side entry, IP66</p> 	<p>1x M20 1x M25 1x M32 2x M20 2x M25 2x M32</p>	<p>6 ... 13 9 ... 17 13 ... 21 6 ... 13 9 ... 17 13 ... 21</p>	<p>19 43 106 0255 19 43 106 0256 19 43 106 0257 19 43 106 0295 19 43 106 0296 19 43 106 0297</p>	




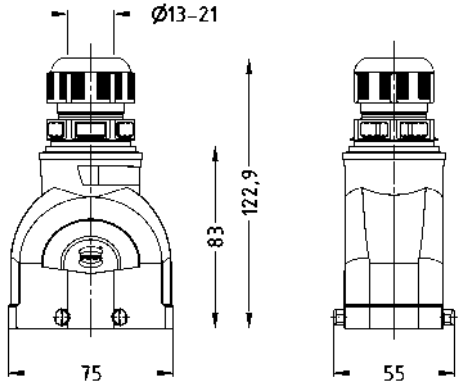

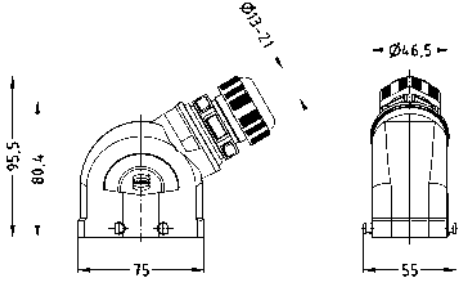

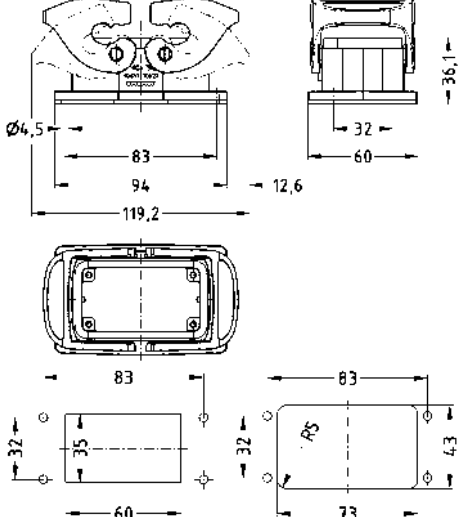
Han  
Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Cable to cable housing, With integrated cable gland, Top entry, IP66</p> 	<p>1x M20 1x M25 1x M32</p>	<p>6 ... 13 9 ... 17 13 ... 21</p>	<p>19 43 106 0755 19 43 106 0756 19 43 106 0757</p>	
<p>Han-Eco® B, Protection cover, for hoods, IP66</p> <p>Han-Eco® B, Protection cover, for bulkhead mounted housings, for surface mounted housings, IP66</p>  <p>Han-Eco® B, Protection cover, for cable to cable housing, IP66</p>			<p>19 43 006 5442</p> <p>19 43 006 5410</p> <p>19 43 006 5446</p>	



Double locking lever

Han  
Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Hood, With integrated cable gland, Top entry, IP66</p> 	<p>1x M20 1x M25 1x M32</p>	<p>6 ... 13 9 ... 17 13 ... 21</p>	<p>19 43 110 0425 19 43 110 0426 19 43 110 0427</p>	
<p>Han-Eco® B, Hood, With integrated cable gland, Side entry, IP66</p> 	<p>1x M20 1x M25 1x M32</p>	<p>6 ... 13 9 ... 17 13 ... 21</p>	<p>19 43 110 0525 19 43 110 0526 19 43 110 0527</p>	
<p>Han-Eco® B, Bulkhead mounted housing, IP66</p> 			<p>19 43 010 0320</p>	 <p>Panel cut out Front mounting / Rear mounting</p>

Han Eco

Identification

Cable entry

Clamping range (mm)

Part number

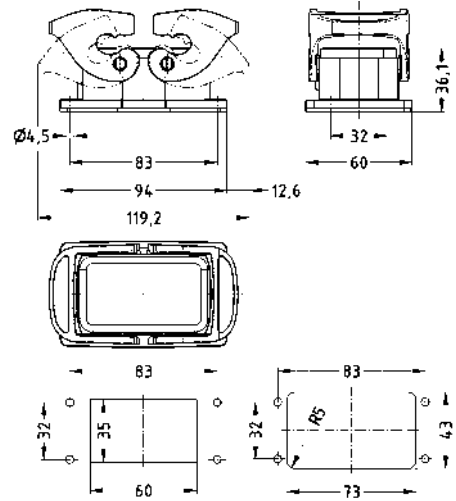
Drawing (dimensions in mm)

Han-Eco® B,  
Bulkhead mounted housing,  
Without frame,  
IP66



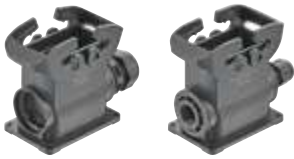
Please order frame 19 43 010 0001 separately.

19 43 010 0310



Panel cut out  
Front mounting / Rear mounting

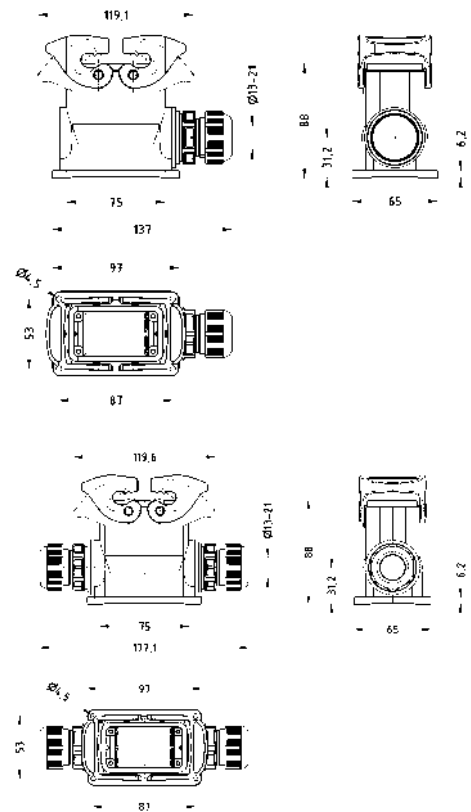
Han-Eco® B,  
Surface mounted housing,  
With integrated cable gland,  
Side entry,  
IP66


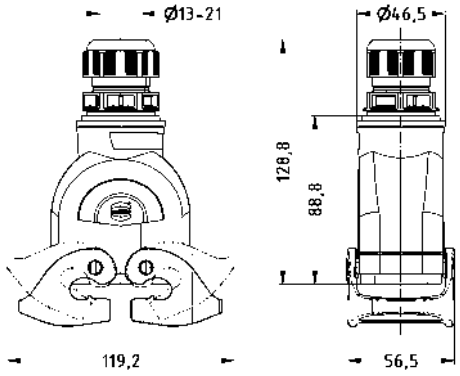

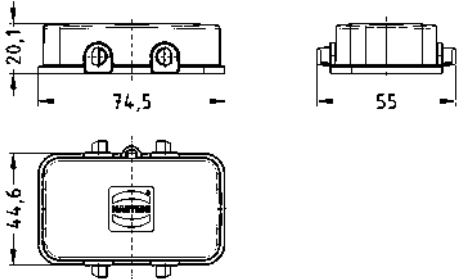


1x M20  
1x M25  
1x M32  
1x M40  
2x M20  
2x M25  
2x M32

6 ... 13  
9 ... 17  
13 ... 21  
16 ... 28  
6 ... 13  
9 ... 17  
13 ... 21


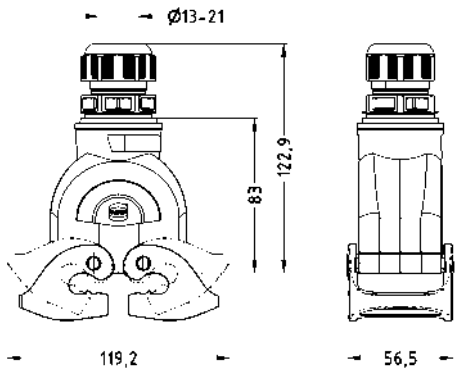

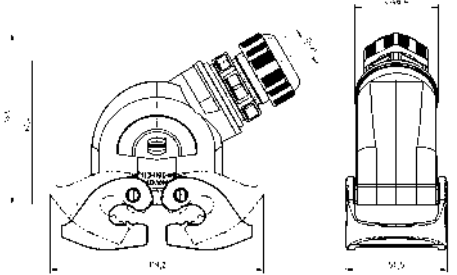

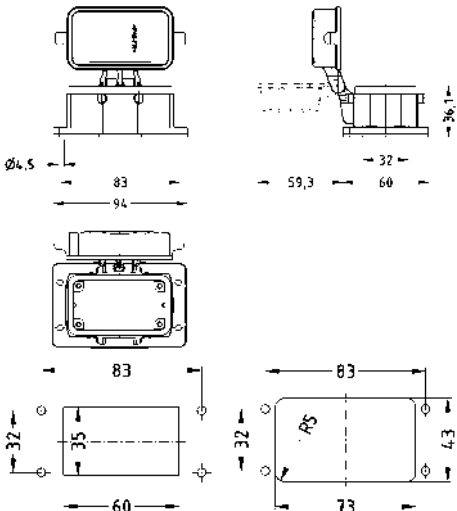
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19 43 110 0232  
19 43 110 0233  
19 43 110 0270  
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19 43 110 0272


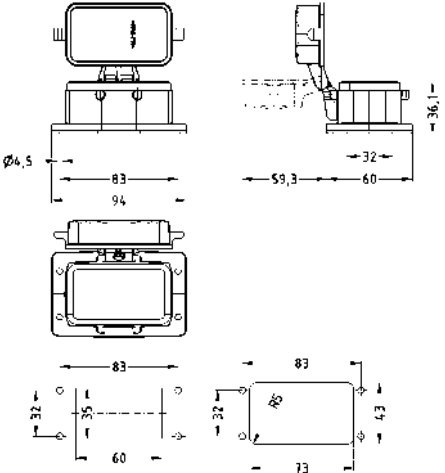

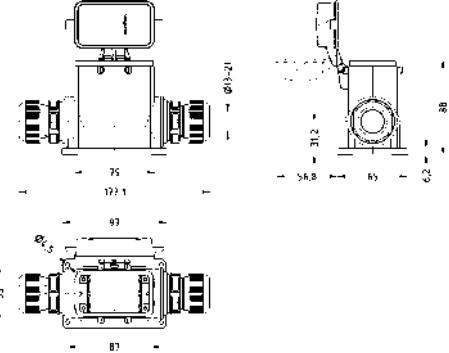


Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Cable to cable housing, With integrated cable gland, Top entry, IP66</p> 	<p>1x M20 1x M25 1x M32</p>	<p>6 ... 13 9 ... 17 13 ... 21</p>	<p>19 43 110 0735 19 43 110 0736 19 43 110 0737</p>	
<p>Han-Eco® B, Protection cover, for hoods, IP66</p> <p>Han-Eco® B, Protection cover, for bulkhead mounted housings, for surface mounted housings, IP66</p>  <p>Han-Eco® B, Protection cover, for cable to cable housing, IP66</p>			<p>19 43 010 5422</p> <p>19 43 010 5425</p> <p>19 43 010 5426</p>	

Double locking lever (on the hood)


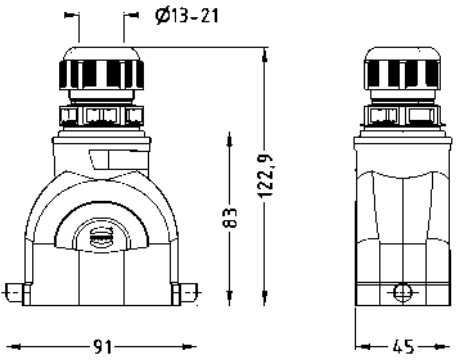

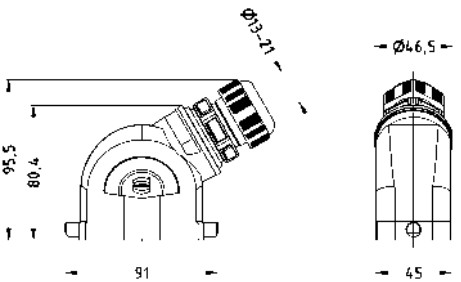

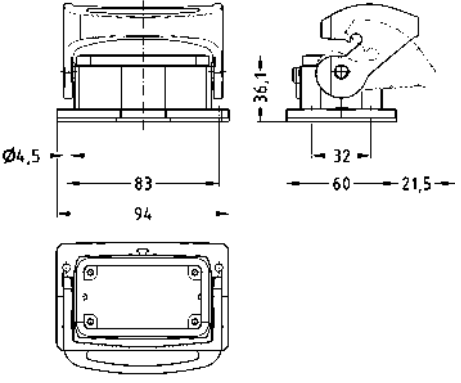
Han  
Eco


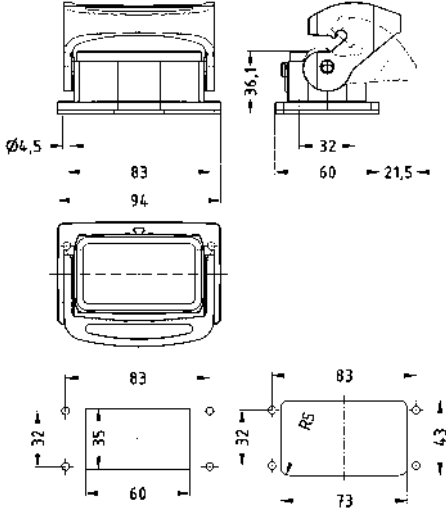

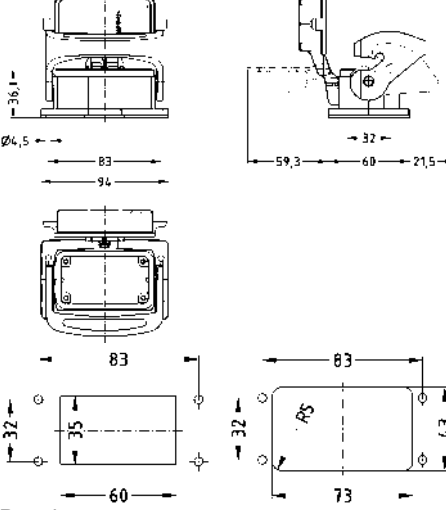
Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Han-Eco® B, Hood, With integrated cable gland, Top entry, IP66  	1x M32	13 ... 21	19 43 110 0437	
Han-Eco® B, Hood, With integrated cable gland, Side entry, IP66  	1x M32	13 ... 21	19 43 110 0537	
Han-Eco® B, Bulkhead mounted housing, With thermo-plastic cover, IP66  			19 43 010 0322	 <p>Panel cut out Front mounting / Rear mounting</p>

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Bulkhead mounted housing, With thermo-plastic cover, Without frame, IP66</p>  <p>Please order frame 19 43 010 0001 separately.</p>			<p>19 43 010 0312</p>	 <p>Panel cut out Front mounting / Rear mounting</p>
<p>Han-Eco® B, Surface mounted housing, With thermo-plastic cover, With integrated cable gland, Side entry, IP66</p> 	<p>1x M32 2x M32</p>	<p>13 ... 21 13 ... 21</p>	<p>19 43 110 0227 19 43 110 0267</p>	


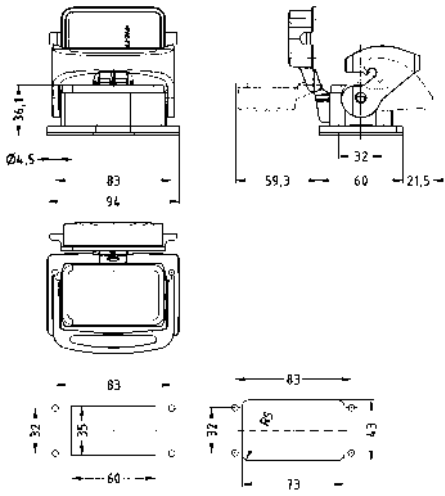

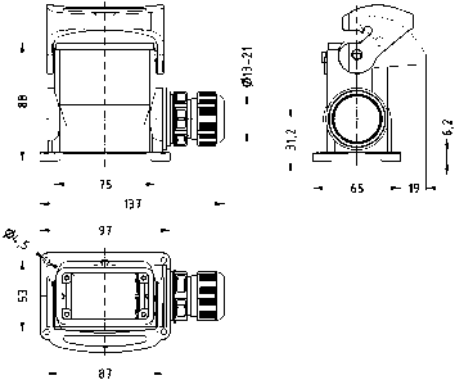

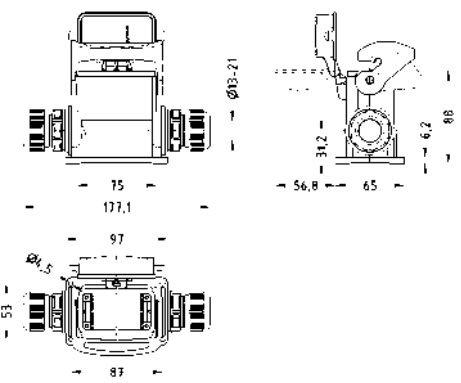
Single locking lever

Han  
Eco


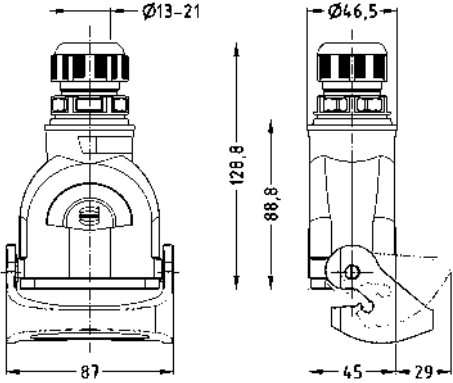

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Han-Eco® B, Hood, With integrated cable gland, Top entry, IP66  	1x M20 1x M25 1x M32	6 ... 13 9 ... 17 13 ... 21	19 43 110 0445 19 43 110 0446 19 43 110 0447	
Han-Eco® B, Hood, With integrated cable gland, Side entry, IP66  	1x M20 1x M25 1x M32	6 ... 13 9 ... 17 13 ... 21	19 43 110 0545 19 43 110 0546 19 43 110 0547	
Han-Eco® B, Bulkhead mounted housing, IP66  			19 43 010 0340	

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Bulkhead mounted housing, Without frame, IP66</p>  <p>Please order frame 19 43 010 0001 separately.</p>			<p>19 43 010 0330</p>	 <p>Panel cut out Front mounting / Rear mounting</p>
<p>Han-Eco® B, Bulkhead mounted housing, With thermo-plastic cover, IP66</p> 			<p>19 43 010 0341</p>	 <p>Panel cut out Front mounting / Rear mounting</p>

Han Eco


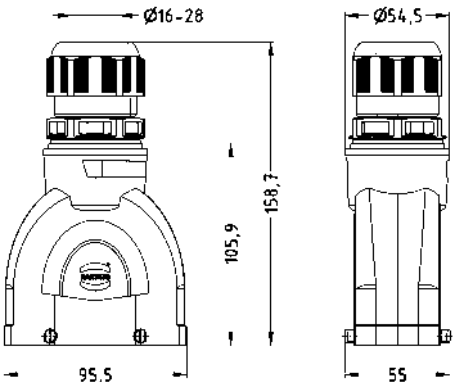

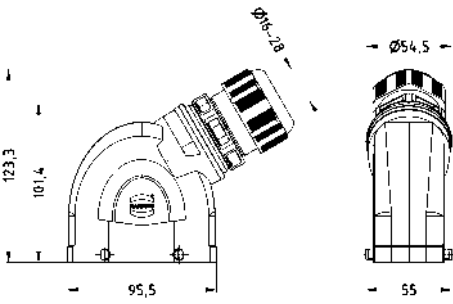

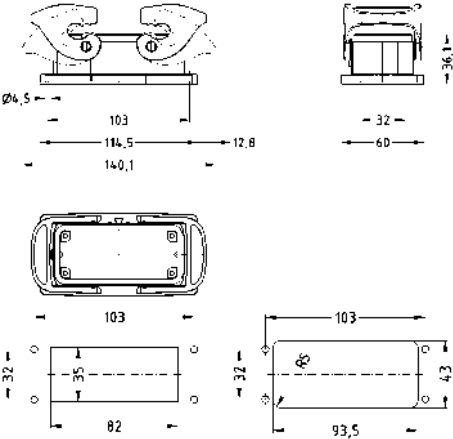
Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Bulkhead mounted housing, With thermo-plastic cover, Without frame, IP66</p>  <p>Please order frame 19 43 010 0001 separately.</p>			19 43 010 0331	 <p>Panel cut out Front mounting / Rear mounting</p>
<p>Han-Eco® B, Surface mounted housing, With integrated cable gland, Side entry, IP66</p> 	<p>1x M20 1x M25 1x M32 2x M20 2x M25 2x M32</p>	<p>6 ... 13 9 ... 17 13 ... 21 6 ... 13 9 ... 17 13 ... 21</p>	<p>19 43 110 0250 19 43 110 0251 19 43 110 0252 19 43 110 0290 19 43 110 0291 19 43 110 0292</p>	
<p>Han-Eco® B, Surface mounted housing, With thermo-plastic cover, With integrated cable gland, Side entry, IP66</p> 	<p>1x M20 1x M25 1x M32 2x M20 2x M25 2x M32</p>	<p>6 ... 13 9 ... 17 13 ... 21 6 ... 13 9 ... 17 13 ... 21</p>	<p>19 43 110 0255 19 43 110 0256 19 43 110 0257 19 43 110 0295 19 43 110 0296 19 43 110 0297</p>	


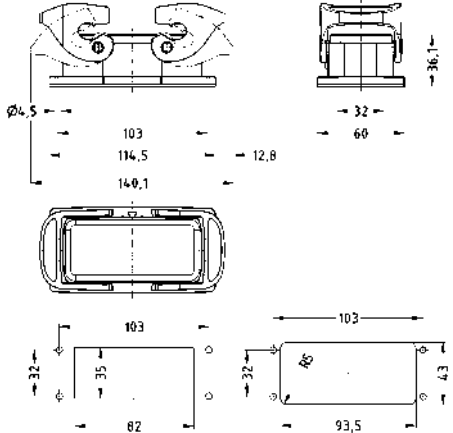

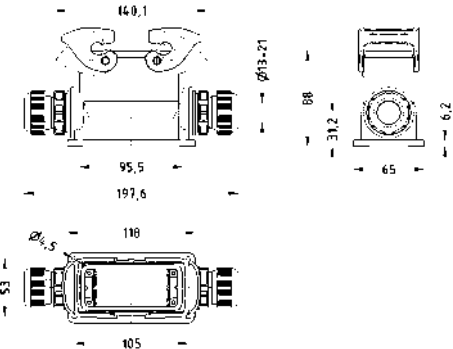

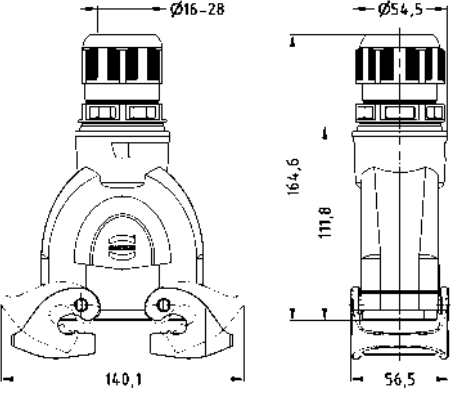


Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Cable to cable housing, With integrated cable gland, Top entry, IP66</p> 	<p>1x M20 1x M25 1x M32</p>	<p>6 ... 13 9 ... 17 13 ... 21</p>	<p>19 43 110 0755 19 43 110 0756 19 43 110 0757</p>	
<p>Han-Eco® B, Protection cover, for hoods, IP66</p> <p>Han-Eco® B, Protection cover, for bulkhead mounted housings, for surface mounted housings, IP66</p>  <p>Han-Eco® B, Protection cover, for cable to cable housing, IP66</p>			<p>19 43 010 5442</p> <p>19 43 010 5410</p> <p>19 43 010 5446</p>	

Double locking lever


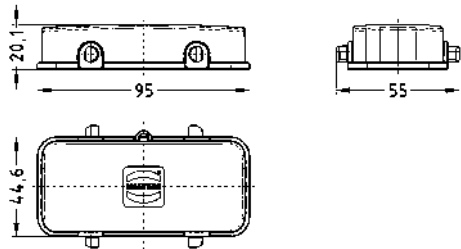
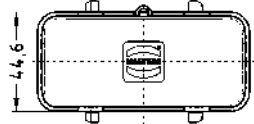
Han  
Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Han-Eco® B, Hood, With integrated cable gland, Top entry, IP66  	1x M25 1x M32 1x M40	9 ... 17 13 ... 21 16 ... 28	19 43 116 0426 19 43 116 0427 19 43 116 0428	
Han-Eco® B, Hood, With integrated cable gland, Side entry, IP66  	1x M25 1x M32 1x M40	9 ... 17 13 ... 21 16 ... 28	19 43 116 0526 19 43 116 0527 19 43 116 0528	
Han-Eco® B, Bulkhead mounted housing, IP66  			19 43 016 0320	 <p>Panel cut out Front mounting / Rear mounting</p>

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Bulkhead mounted housing, Without frame, IP66</p>  <p>Please order frame 19 43 016 0001 separately.</p>			19 43 016 0310	 <p>Panel cut out Front mounting / Rear mounting</p>
<p>Han-Eco® B, Surface mounted housing, With integrated cable gland, Side entry, IP66</p> 	<p>1x M25 1x M32 1x M40 2x M25 2x M32 2x M40</p>	<p>9 ... 17 13 ... 21 16 ... 28 9 ... 17 13 ... 21 16 ... 28</p>	<p>19 43 116 0231 19 43 116 0232 19 43 116 0233 19 43 116 0271 19 43 116 0272 19 43 116 0273</p>	
<p>Han-Eco® B, Cable to cable housing, With integrated cable gland, Top entry, IP66</p> 	<p>1x M25 1x M32 1x M40</p>	<p>9 ... 17 13 ... 21 16 ... 28</p>	<p>19 43 116 0736 19 43 116 0737 19 43 116 0738</p>	
<p>Han-Eco® B, Protection cover, for hoods, IP66</p>			19 43 016 5422	


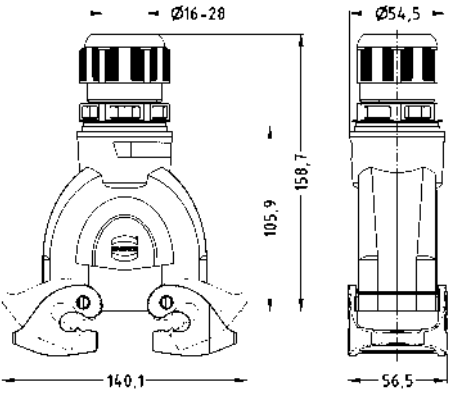

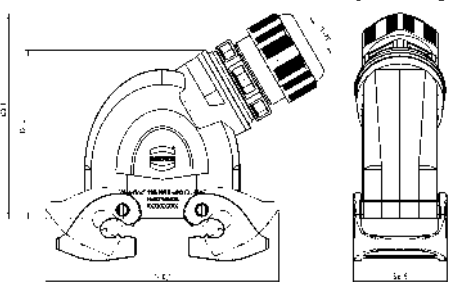

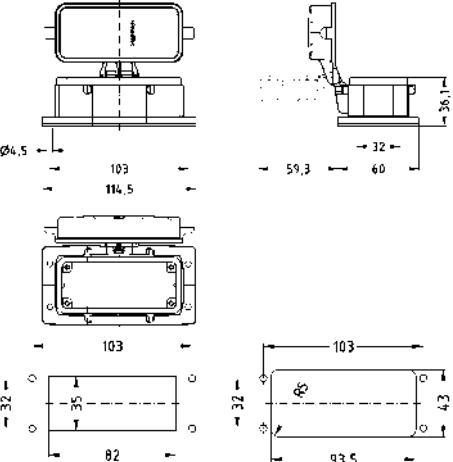


Han  
Eco


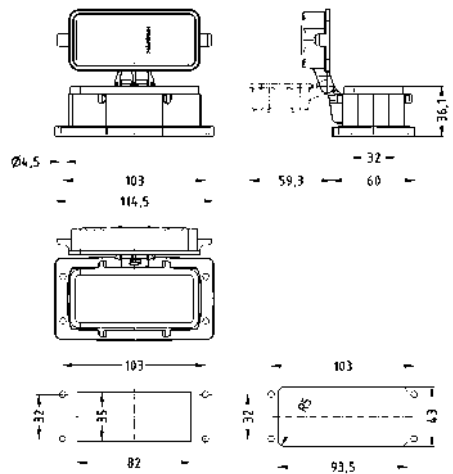

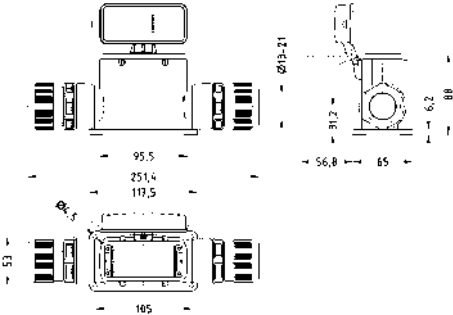
Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Protection cover, for bulkhead mounted housings, for surface mounted housings, IP66</p> 			19 43 016 5425	
<p>Han-Eco® B, Protection cover, for cable to cable housing, IP66</p>			19 43 016 5426	

Double locking lever (on the hood)

Han  
Eco


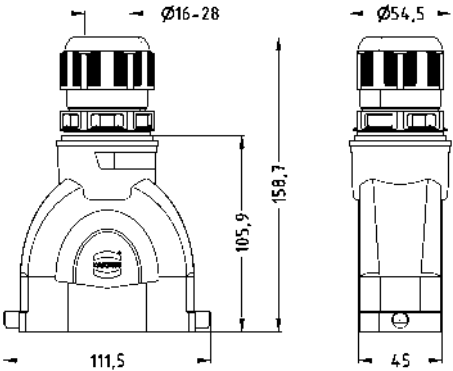

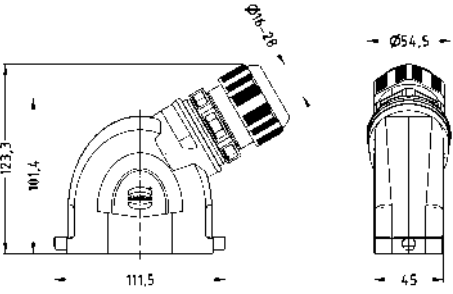

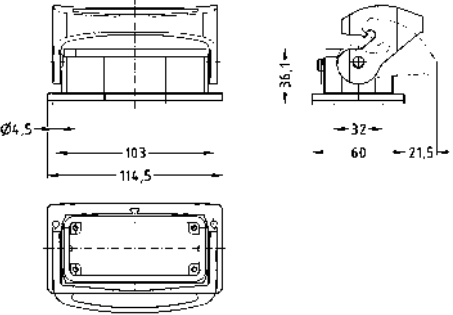
Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Hood, With integrated cable gland, Top entry, IP66</p> 	1x M40	16 ... 28	19 43 116 0438	
<p>Han-Eco® B, Hood, With integrated cable gland, Side entry, IP66</p> 	1x M40	16 ... 28	19 43 116 0538	
<p>Han-Eco® B, Bulkhead mounted housing, With thermo-plastic cover, IP66</p> 			19 43 016 0322	 <p>Panel cut out Front mounting / Rear mounting</p>

Han Eco


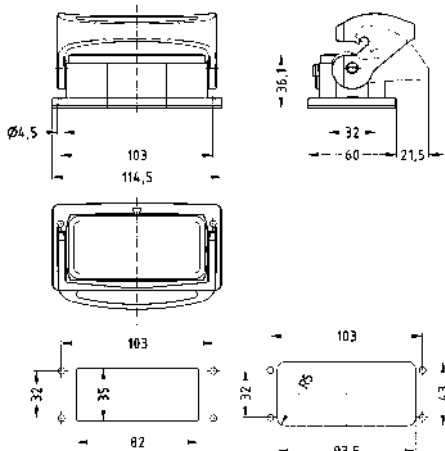

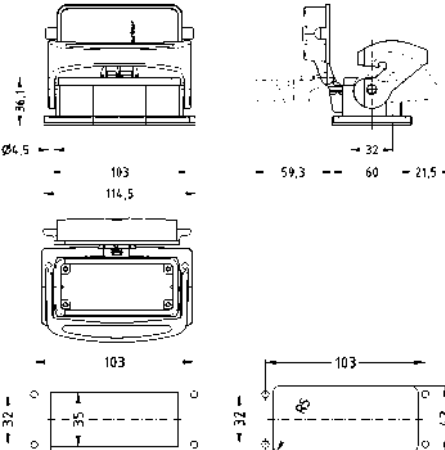

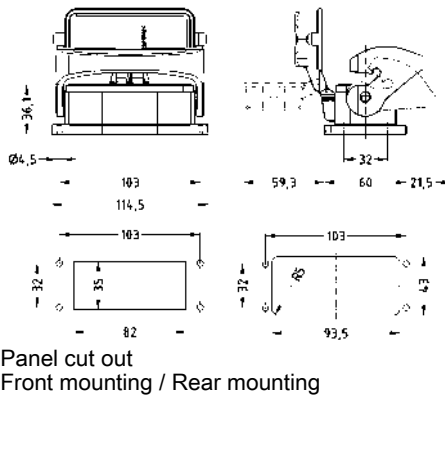
Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Bulkhead mounted housing, With thermo-plastic cover, Without frame, IP66</p>  <p>Please order frame 19 43 016 0001 separately.</p>			19 43 016 0312	 <p>Panel cut out Front mounting / Rear mounting</p>
<p>Han-Eco® B, Surface mounted housing, With thermo-plastic cover, With integrated cable gland, Side entry, IP66</p> 	1x M40 2x M40	16 ... 28 16 ... 28	19 43 116 0228 19 43 116 0268	

Single locking lever

Han Eco


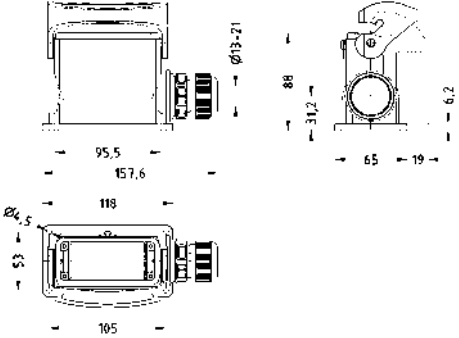

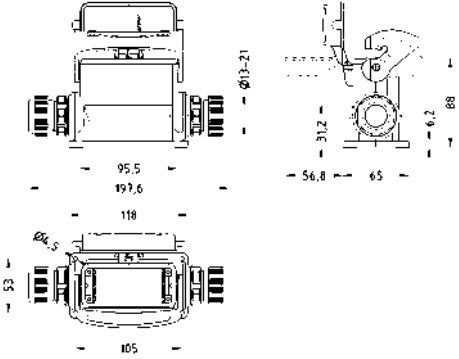

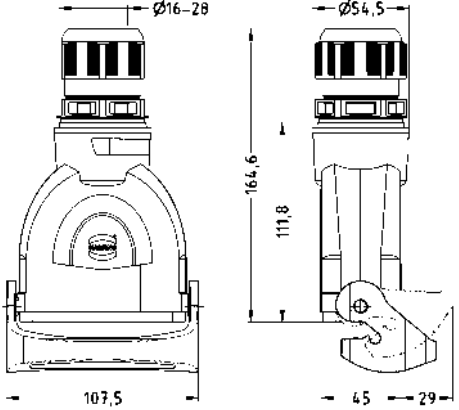
Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Han-Eco® B, Hood, With integrated cable gland, Top entry, IP66 	1x M25 1x M32 1x M40	9 ... 17 13 ... 21 16 ... 28	19 43 116 0446 19 43 116 0447 19 43 116 0448	
Han-Eco® B, Hood, With integrated cable gland, Side entry, IP66 	1x M25 1x M32 1x M40	9 ... 17 13 ... 21 16 ... 28	19 43 116 0546 19 43 116 0547 19 43 116 0548	
Han-Eco® B, Bulkhead mounted housing, IP66 			19 43 016 0340	

Han Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Bulkhead mounted housing, Without frame, IP66</p>  <p>Please order frame 19 43 016 0001 separately.</p>			19 43 016 0330	 <p>Panel cut out Front mounting / Rear mounting</p>
<p>Han-Eco® B, Bulkhead mounted housing, With thermo-plastic cover, IP66</p> 			19 43 016 0341	 <p>Panel cut out Front mounting / Rear mounting</p>
<p>Han-Eco® B, Bulkhead mounted housing, With thermo-plastic cover, Without frame, IP66</p>  <p>Please order frame 19 43 016 0001 separately.</p>			19 43 016 0331	 <p>Panel cut out Front mounting / Rear mounting</p>




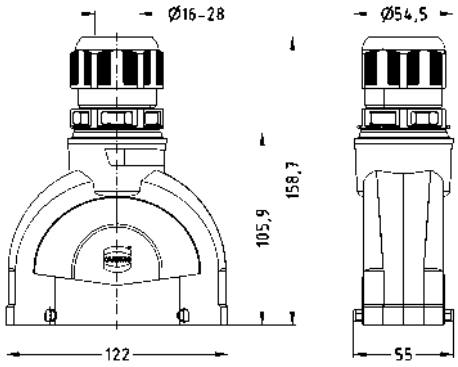

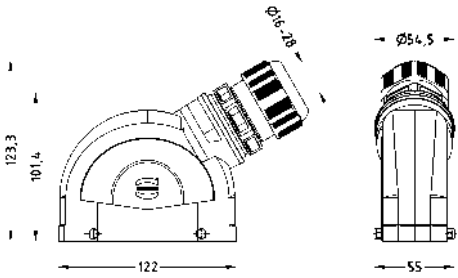

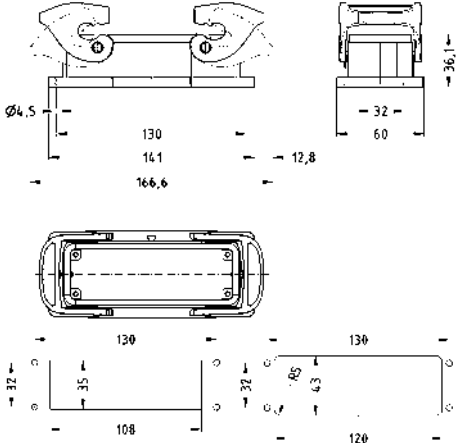



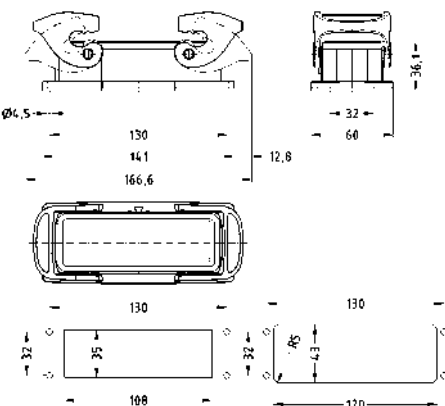

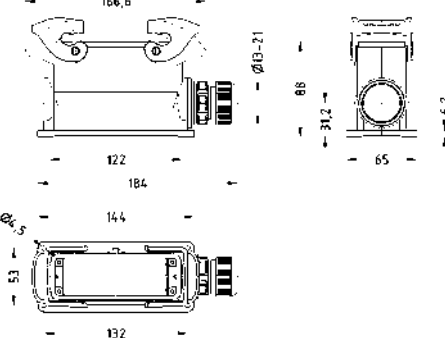

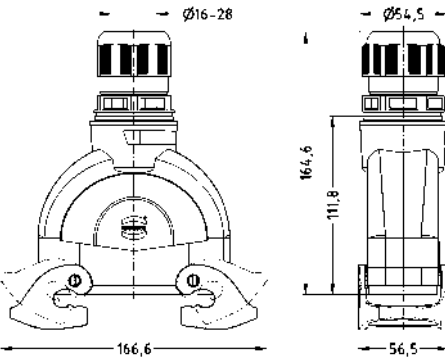

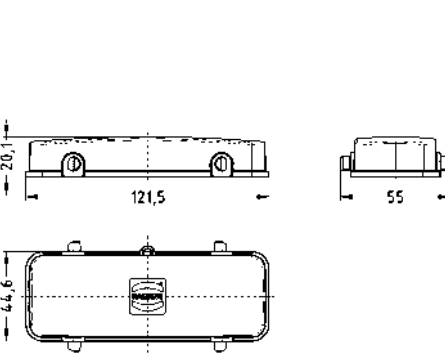
Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Han-Eco® B, Surface mounted housing, With integrated cable gland, Side entry, IP66 	1x M25 1x M32 1x M40 2x M25 2x M32 2x M40	9 ... 17 13 ... 21 16 ... 28 9 ... 17 13 ... 21 16 ... 28	19 43 116 0251 19 43 116 0252 19 43 116 0253 19 43 116 0291 19 43 116 0292 19 43 116 0293	
Han-Eco® B, Surface mounted housing, With thermo-plastic cover, With integrated cable gland, Side entry, IP66 	1x M25 1x M32 1x M40 2x M25 2x M32 2x M40	9 ... 17 13 ... 21 16 ... 28 9 ... 17 13 ... 21 16 ... 28	19 43 116 0256 19 43 116 0257 19 43 116 0258 19 43 116 0296 19 43 116 0297 19 43 116 0298	
Han-Eco® B, Cable to cable housing, With integrated cable gland, Top entry, IP66 	1x M25 1x M32 1x M40	9 ... 17 13 ... 21 16 ... 28	19 43 116 0756 19 43 116 0757 19 43 116 0758	
Han-Eco® B, Protection cover, for hoods, IP66 Han-Eco® B, Protection cover, for bulkhead mounted housings, for surface mounted housings, IP66 Han-Eco® B, Protection cover, for cable to cable housing, IP66			19 43 016 5442  19 43 016 5410  19 43 016 5446	



Double locking lever

Han  
Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Han-Eco® B, Hood, With integrated cable gland, Top entry, IP66  	1x M32 1x M40	13 ... 21 16 ... 28	19 43 124 0427 19 43 124 0428	
Han-Eco® B, Hood, With integrated cable gland, Side entry, IP66  	1x M32 1x M40	13 ... 21 16 ... 28	19 43 124 0527 19 43 124 0528	
Han-Eco® B, Bulkhead mounted housing, IP66  			19 43 024 0320	 <p>Panel cut out Front mounting / Rear mounting</p>

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Bulkhead mounted housing, Without frame, IP66</p>  <p>Please order frame 19 43 024 0001 separately.</p>			19 43 024 0310	 <p>Panel cut out Front mounting / Rear mounting</p>
<p>Han-Eco® B, Surface mounted housing, With integrated cable gland, Side entry, IP66</p> 	<p>1x M25 1x M32 1x M40 2x M25 2x M32 2x M40</p>	<p>9 ... 17 13 ... 21 16 ... 28 9 ... 17 13 ... 21 16 ... 28</p>	<p>19 43 124 0231 19 43 124 0232 19 43 124 0233 19 43 124 0271 19 43 124 0272 19 43 124 0273</p>	
<p>Han-Eco® B, Cable to cable housing, With integrated cable gland, Top entry, IP66</p> 	<p>1x M32 1x M40</p>	<p>13 ... 21 16 ... 28</p>	<p>19 43 124 0737 19 43 124 0738</p>	
<p>Han-Eco® B, Protection cover, for hoods, IP66</p> <p>Han-Eco® B, Protection cover, for bulkhead mounted housings, for surface mounted housings, IP66</p> 			<p>19 43 024 5422</p> <p>19 43 024 5425</p>	




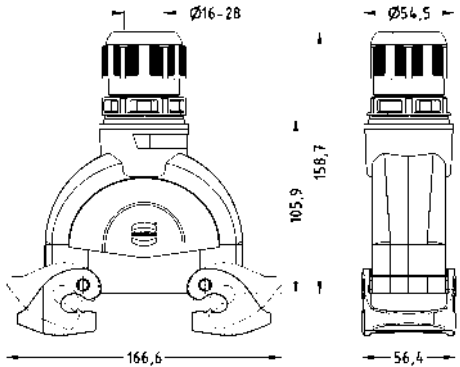

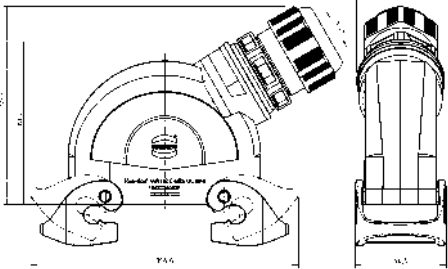

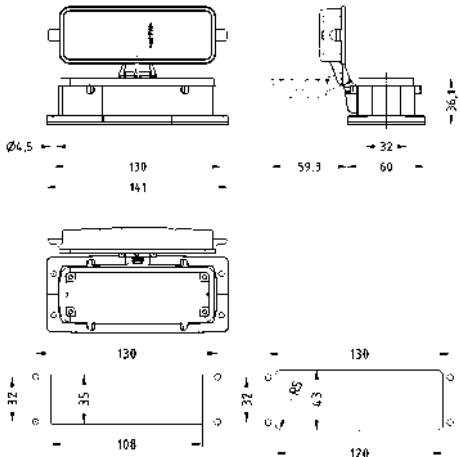
Han  
Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Han-Eco® B, Protection cover, for cable to cable housing, IP66			19 43 024 5426	

Han  
29  
·  
76


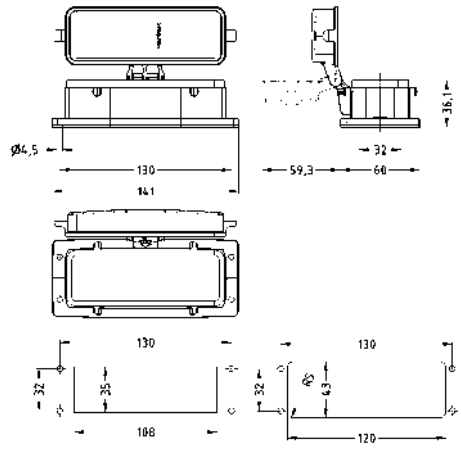
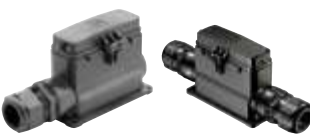
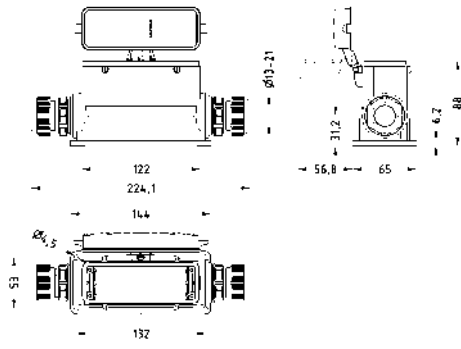
Double locking lever (on the hood)

Han  
Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Han-Eco® B, Hood, With integrated cable gland, Top entry, IP66  	1x M40	16 ... 28	19 43 124 0438	 <p>Technical drawing showing front and side views of the hood. Dimensions: Ø16-28, Ø54,5, 105,9, 158,7, 166,6, 56,4.</p>
Han-Eco® B, Hood, With integrated cable gland, Side entry, IP66  	1x M40	16 ... 28	19 43 124 0538	 <p>Technical drawing showing front and side views of the hood. Dimensions: 105,9, 158,7, 166,6, 56,4.</p>
Han-Eco® B, Bulkhead mounted housing, With thermo-plastic cover, IP66  			19 43 024 0322	 <p>Technical drawing showing front and side views of the bulkhead housing. Dimensions: Ø4,5, 130, 111, 59,3, 60, 32, 36,1, 108, 120, 32, 35, 43, 130.</p> <p>Panel cut out Front mounting / Rear mounting</p>


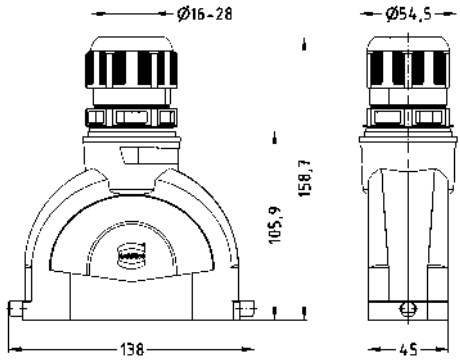

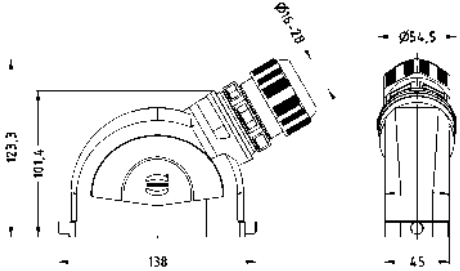

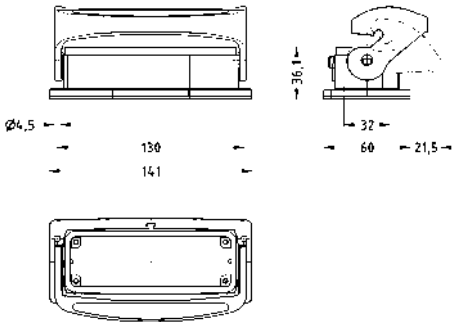


Han Eco


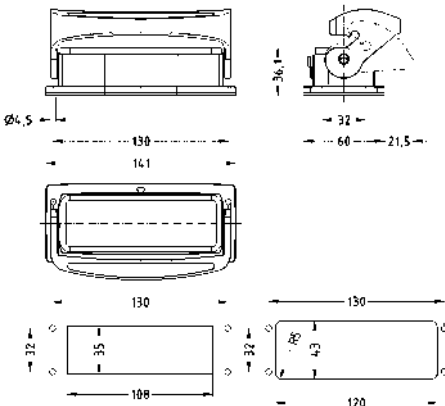

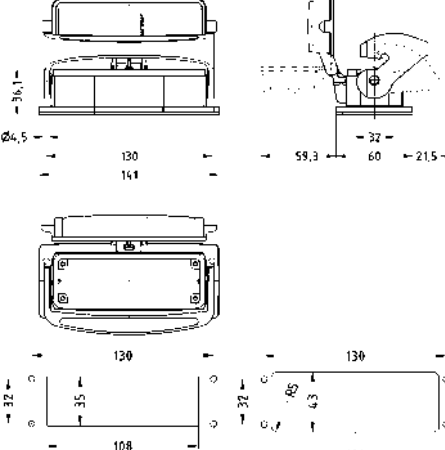

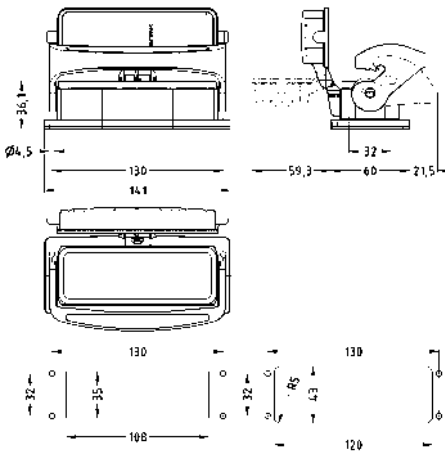
Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Bulkhead mounted housing, With thermo-plastic cover, Without frame, IP66</p>  <p>Please order frame 19 43 024 0001 separately.</p>			19 43 024 0312	 <p>Panel cut out Front mounting / Rear mounting</p>
<p>Han-Eco® B, Surface mounted housing, With thermo-plastic cover, With integrated cable gland, Side entry, IP66</p> 	<p>1x M32 1x M40 2x M32 2x M40</p>	<p>13 ... 21 16 ... 28 13 ... 21 16 ... 28</p>	<p>19 43 124 0227 19 43 124 0228 19 43 124 0267 19 43 124 0268</p>	

Single locking lever


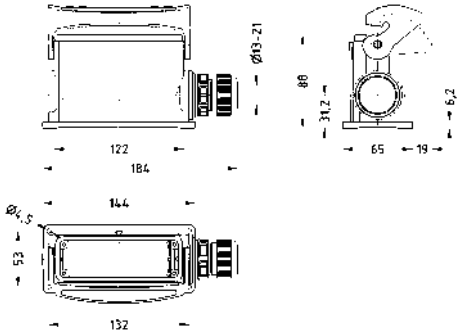
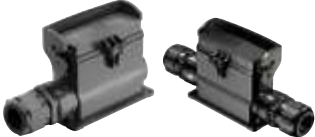
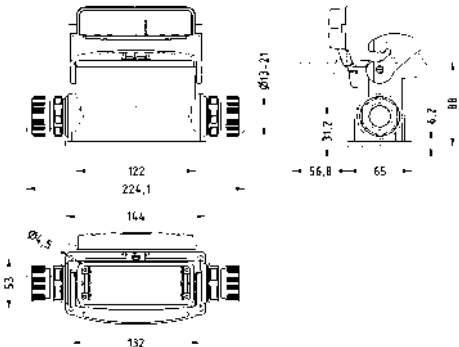

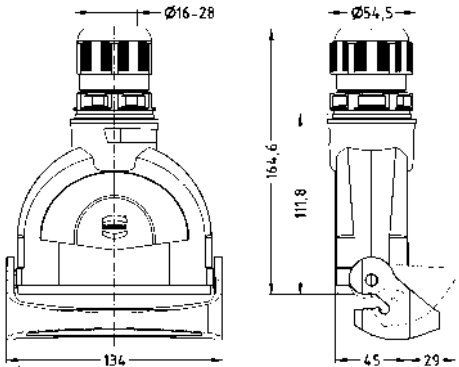

Han  
Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Han-Eco® B, Hood, With integrated cable gland, Top entry, IP66  	1x M32 1x M40	13 ... 21 16 ... 28	19 43 124 0447 19 43 124 0448	
Han-Eco® B, Hood, With integrated cable gland, Side entry, IP66  	1x M32 1x M40	13 ... 21 16 ... 28	19 43 124 0547 19 43 124 0548	
Han-Eco® B, Bulkhead mounted housing, IP66  			19 43 024 0340	

Han Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Bulkhead mounted housing, Without frame, IP66</p>  <p>Please order frame 19 43 024 0001 separately.</p>			19 43 024 0330	 <p>Panel cut out Front mounting / Rear mounting</p>
<p>Han-Eco® B, Bulkhead mounted housing, With thermo-plastic cover, IP66</p> 			19 43 024 0341	 <p>Panel cut out Front mounting / Rear mounting</p>
<p>Han-Eco® B, Bulkhead mounted housing, With thermo-plastic cover, Without frame, IP66</p>  <p>Please order frame 19 43 024 0001 separately.</p>			19 43 024 0331	 <p>Panel cut out Front mounting / Rear mounting</p>



Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Surface mounted housing, With integrated cable gland, Side entry, IP66</p> 	<p>1x M25 1x M32 1x M40 2x M25 2x M32 2x M40</p>	<p>9 ... 17 13 ... 21 16 ... 28 9 ... 17 13 ... 21 16 ... 28</p>	<p>19 43 124 0251 19 43 124 0252 19 43 124 0253 19 43 124 0291 19 43 124 0292 19 43 124 0293</p>	
<p>Han-Eco® B, Surface mounted housing, With thermo-plastic cover, With integrated cable gland, Side entry, IP66</p> 	<p>1x M25 1x M32 1x M40 2x M25 2x M32 2x M40</p>	<p>9 ... 17 13 ... 21 16 ... 28 9 ... 17 13 ... 21 16 ... 28</p>	<p>19 43 124 0256 19 43 124 0257 19 43 124 0258 19 43 124 0296 19 43 124 0297 19 43 124 0298</p>	
<p>Han-Eco® B, Cable to cable housing, With integrated cable gland, Top entry, IP66</p> 	<p>1x M32 1x M40</p>	<p>13 ... 21 16 ... 28</p>	<p>19 43 124 0757 19 43 124 0758</p>	
<p>Han-Eco® B, Protection cover, for hoods, IP66</p> <p>Han-Eco® B, Protection cover, for bulkhead mounted housings, for surface mounted housings, IP66</p>  <p>Han-Eco® B, Protection cover, for cable to cable housing, IP66</p>			<p>19 43 024 5442</p> <p>19 43 024 5410</p> <p>19 43 024 5446</p>	

## Features

- Suitable for standard inserts and modules from the Han-Modular® portfolio
- With integrated cable gland
- Suitable for applications according to protection class I
- Minimal weight with excellent mechanical robustness

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Number of relockings	≥500
Degree of protection acc. to IEC 60529	IP66
Material (hood/housing)	Polyamide (PA), Fibre-glass reinforced
Colour (hood/housing)	RAL 9005 (jet black)
Material (seal)	FPM
Colour (seal)	RAL 7001 (silver-grey)
Material (locking)	Polyamide (PA), Fibre-glass reinforced
Colour (locking)	RAL 9005 (jet black)
Material flammability class acc. to UL 94	V-0
Material flammability class acc. to UL 94 (locking levers)	V-0
RoHS	compliant with exemption, compliant

## Specifications and approvals

IEC 61984  
 EN 45545-2 R22: HL1, HL2, HL3  
 EN 45545-2 R23: HL1, HL2, HL3  
 EN 45545-2 R24: HL1, HL2, HL3




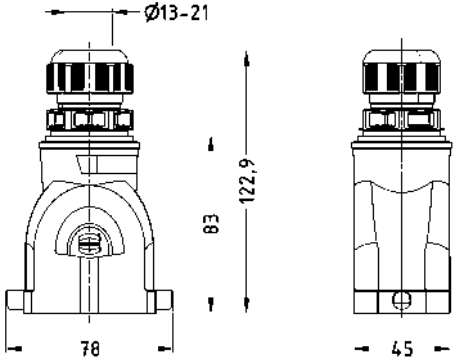

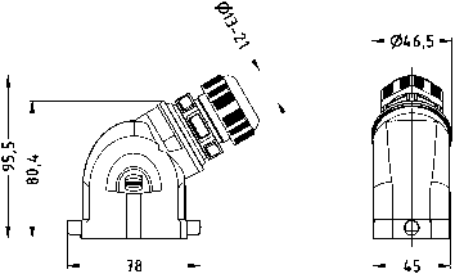

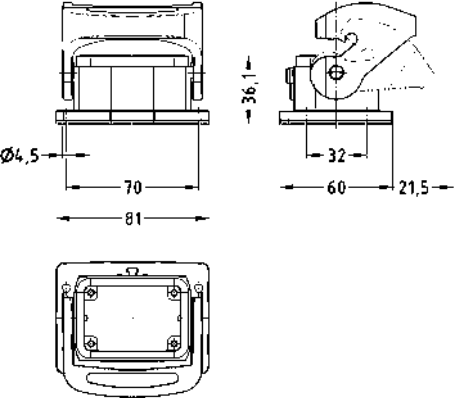
## Details

Mating compatible with all metal hoods and housings of the series Han® B.



As an option a larger panel cut out for the rear assembly of the bulkhead mounted housings is possible.


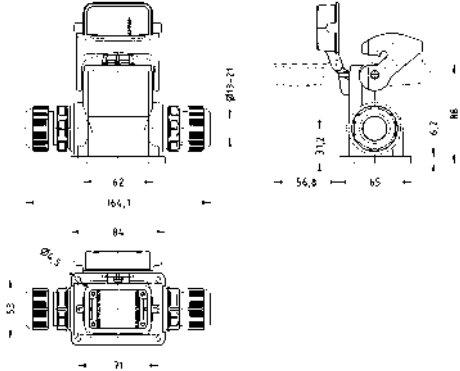

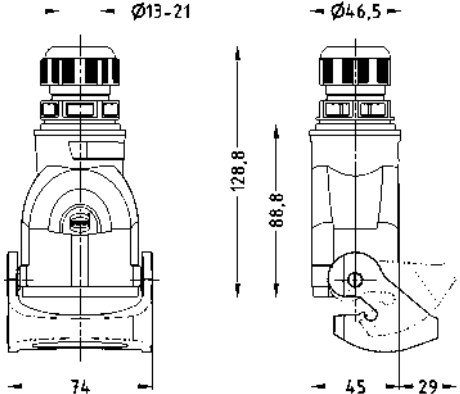

Single locking lever

Han  
Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Hood, With integrated cable gland, Top entry, IP66</p> 	<p>1x M20 1x M25 1x M32</p>	<p>6 ... 13 9 ... 17 13 ... 21</p>	<p>19 43 106 0445 19 43 106 0446 19 43 106 0447</p>	
<p>Han-Eco® B, Hood, With integrated cable gland, Side entry, IP66</p> 	<p>1x M20 1x M25 1x M32</p>	<p>6 ... 13 9 ... 17 13 ... 21</p>	<p>19 43 106 0545 19 43 106 0546 19 43 106 0547</p>	
<p>Han-Eco® B, Bulkhead mounted housing, IP66</p> 			<p>19 43 206 0340</p>	


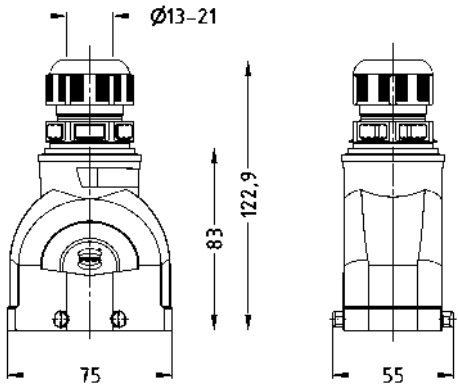

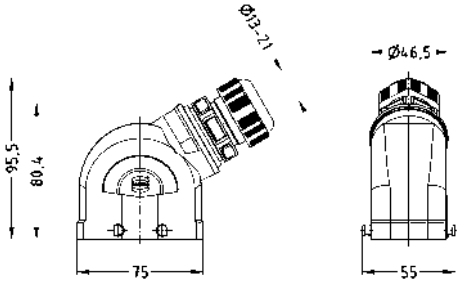

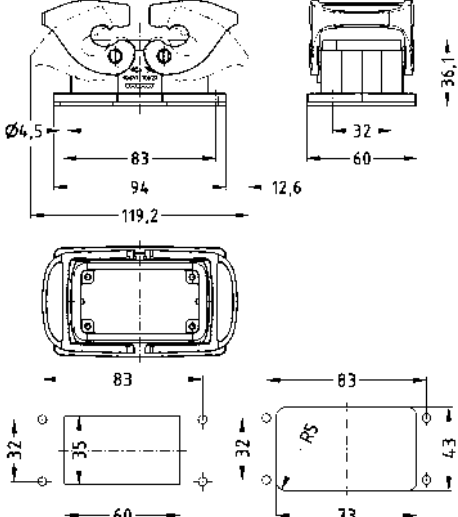
Han Eco


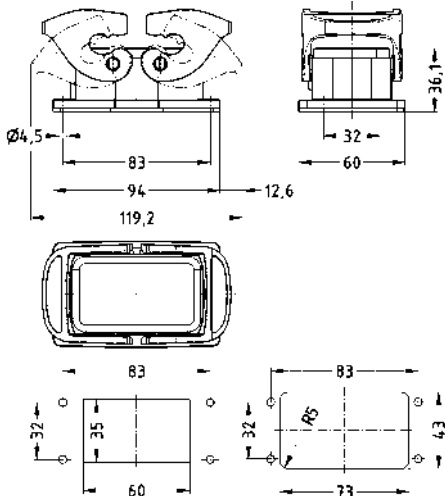
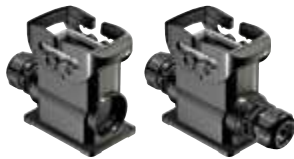
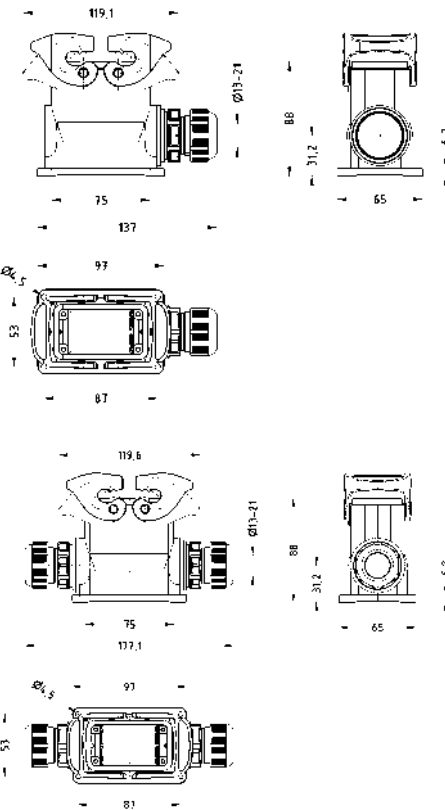
Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Bulkhead mounted housing, Without frame, IP66 Please order frame 19 43 006 0001 separately.</p>			19 43 206 0330	<p>Panel cut out Front mounting / Rear mounting</p>
<p>Han-Eco® B, Bulkhead mounted housing, With thermo-plastic cover, IP66</p> 			19 43 206 0341	<p>Panel cut out Front mounting / Rear mounting</p>
<p>Han-Eco® B, Surface mounted housing, With integrated cable gland, Side entry, IP66</p> 	<p>1x M20 1x M25 1x M32 2x M20 2x M25 2x M32</p>	<p>6 ... 13 9 ... 17 13 ... 21 6 ... 13 9 ... 17 13 ... 21</p>	<p>19 43 306 0250 19 43 306 0251 19 43 306 0252 19 43 306 0290 19 43 306 0291 19 43 306 0292</p>	

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Surface mounted housing, With thermo-plastic cover, With integrated cable gland, Side entry, IP66</p> 	<p>1x M20 1x M25 1x M32 2x M20 2x M25 2x M32</p>	<p>6 ... 13 9 ... 17 13 ... 21 6 ... 13 9 ... 17 13 ... 21</p>	<p>19 43 306 0255 19 43 306 0256 19 43 306 0257 19 43 306 0295 19 43 306 0296 19 43 306 0297</p>	
<p>Han-Eco® B, Cable to cable housing, With integrated cable gland, Top entry, IP66</p> 	<p>1x M20 1x M25 1x M32</p>	<p>6 ... 13 9 ... 17 13 ... 21</p>	<p>19 43 306 0755 19 43 306 0756 19 43 306 0757</p>	
<p>Han-Eco® B, Protection cover, for hoods, IP66</p> <p>Han-Eco® B, Protection cover, for bulkhead mounted housings, for surface mounted housings, IP66</p>  <p>Han-Eco® B, Protection cover, for cable to cable housing, IP66</p>			<p>19 43 206 5442</p> <p>19 43 006 5410</p> <p>19 43 006 5446</p>	


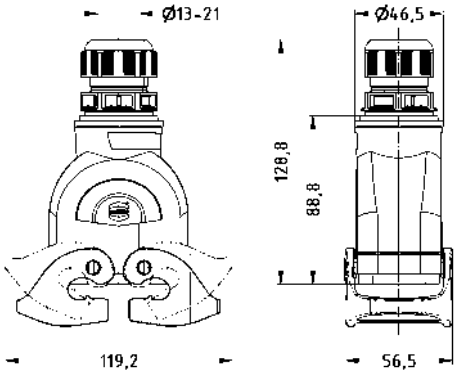
Double locking lever

Han  
Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Han-Eco® B, Hood, With integrated cable gland, Top entry, IP66  	1x M20 1x M25 1x M32	6 ... 13 9 ... 17 13 ... 21	19 43 110 0425 19 43 110 0426 19 43 110 0427	
Han-Eco® B, Hood, With integrated cable gland, Side entry, IP66  	1x M20 1x M25 1x M32	6 ... 13 9 ... 17 13 ... 21	19 43 110 0525 19 43 110 0526 19 43 110 0527	
Han-Eco® B, Bulkhead mounted housing, IP66  			19 43 210 0320	 <p>Panel cut out Front mounting / Rear mounting</p>

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Bulkhead mounted housing, Without frame, IP66</p>  <p>Please order frame 19 43 010 0001 separately.</p>			19 43 210 0310	 <p>Panel cut out Front mounting / Rear mounting</p>
<p>Han-Eco® B, Surface mounted housing, With integrated cable gland, Side entry, IP66</p> 	<p>1x M20 1x M25 1x M32 1x M40 2x M20 2x M25 2x M32</p>	<p>6 ... 13 9 ... 17 13 ... 21 16 ... 28 6 ... 13 9 ... 17 13 ... 21</p>	<p>19 43 310 0230 19 43 310 0231 19 43 310 0232 19 43 310 0233 19 43 310 0270 19 43 310 0271 19 43 310 0272</p>	


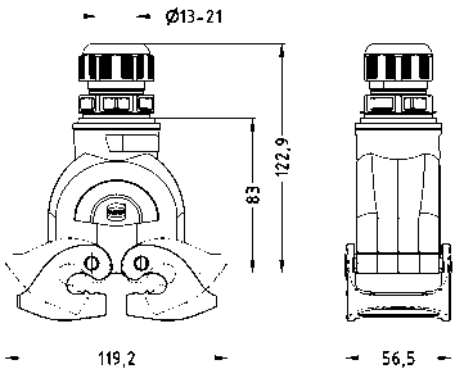

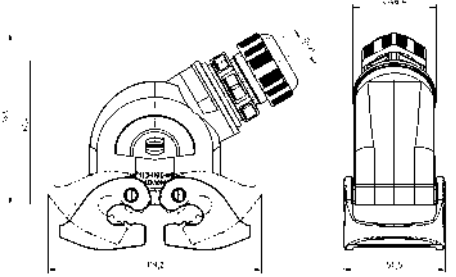

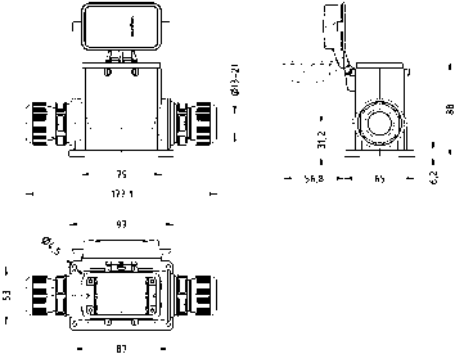
Han  
Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Cable to cable housing, With integrated cable gland, Top entry, IP66</p> 	<p>1x M20 1x M25 1x M32</p>	<p>6 ... 13 9 ... 17 13 ... 21</p>	<p>19 43 310 0735 19 43 310 0736 19 43 310 0737</p>	
<p>Han-Eco® B, Protection cover, for hoods, IP66</p>			<p>19 43 210 5422</p>	




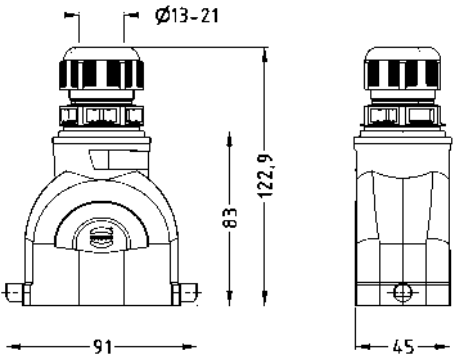

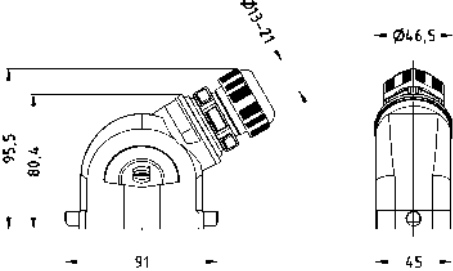

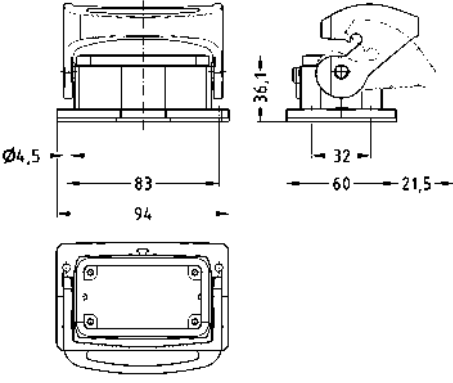
Double locking lever (on the hood)



Han  
Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Hood, With integrated cable gland, Top entry, IP66</p> 	1x M32	13 ... 21	19 43 110 0437	 <p>Technical drawing showing front and side views of the hood. Dimensions: Ø13-21, 122,9, 83, 119,2, 56,5.</p>
<p>Han-Eco® B, Hood, With integrated cable gland, Side entry, IP66</p> 	1x M32	13 ... 21	19 43 110 0537	 <p>Technical drawing showing front and side views of the hood. Dimensions: 119,2, 56,5, 122,9, 83, 13, 21.</p>
<p>Han-Eco® B, Surface mounted housing, With thermo-plastic cover, With integrated cable gland, Side entry, IP66</p> 	1x M32 2x M32	13 ... 21 13 ... 21	19 43 310 0227 19 43 310 0267	 <p>Technical drawing showing front and side views of the surface mounted housing. Dimensions: 172,1, 75, 93, 87, 53, 31,2, 58,8, 65, 6,2, 88, Ø13-21.</p>


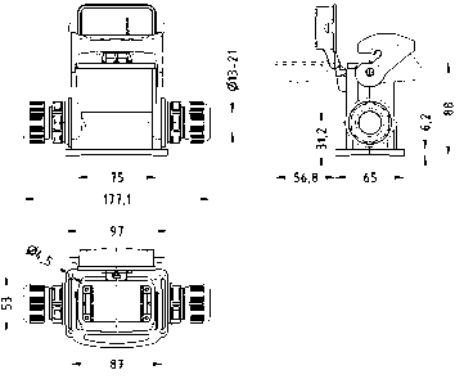

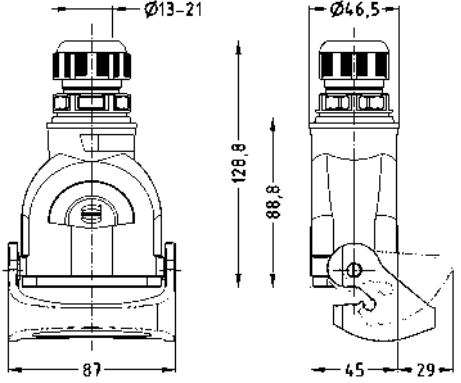
Single locking lever

Han  
Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Han-Eco® B, Hood, With integrated cable gland, Top entry, IP66  	1x M20	6 ... 13	19 43 110 0445	
Han-Eco® B, Hood, With integrated cable gland, Side entry, IP66  	1x M20 1x M25 1x M32	6 ... 13 9 ... 17 13 ... 21	19 43 110 0545 19 43 110 0546 19 43 110 0547	
Han-Eco® B, Bulkhead mounted housing, IP66  			19 43 210 0340	


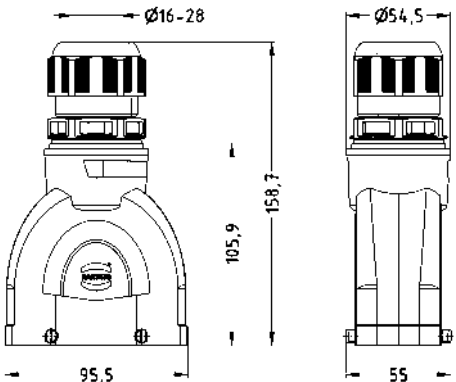

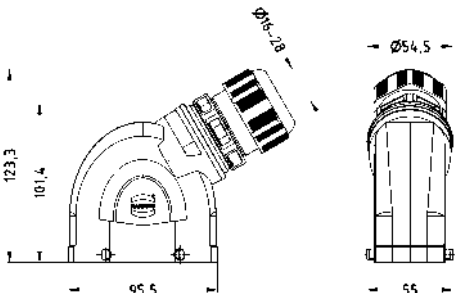

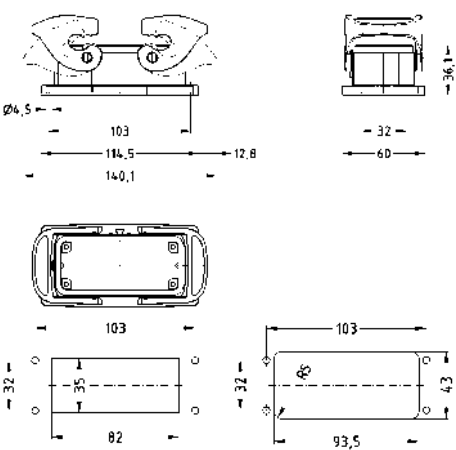
Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Bulkhead mounted housing, Without frame, IP66 Please order frame 19 43 010 0001 separately.</p>			19 43 210 0330	<p>Panel cut out Front mounting / Rear mounting</p>
<p>Han-Eco® B, Bulkhead mounted housing, With thermo-plastic cover, IP66</p> 			19 43 210 0341	<p>Panel cut out Front mounting / Rear mounting</p>
<p>Han-Eco® B, Surface mounted housing, With integrated cable gland, Side entry, IP66</p> 	<p>1x M20 1x M25 1x M32 2x M20 2x M25 2x M32</p>	<p>6 ... 13 9 ... 17 13 ... 21 6 ... 13 9 ... 17 13 ... 21</p>	<p>19 43 310 0250 19 43 310 0251 19 43 310 0252 19 43 310 0290 19 43 310 0291 19 43 310 0292</p>	

Han  
Eco



Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Surface mounted housing, With thermo-plastic cover, With integrated cable gland, Side entry, IP66</p> 	<p>1x M20 1x M25 1x M32 2x M20 2x M25 2x M32</p>	<p>6 ... 13 9 ... 17 13 ... 21 6 ... 13 9 ... 17 13 ... 21</p>	<p>19 43 310 0255 19 43 310 0256 19 43 310 0257 19 43 310 0295 19 43 310 0296 19 43 310 0297</p>	
<p>Han-Eco® B, Cable to cable housing, With integrated cable gland, Top entry, IP66</p> 	<p>1x M20 1x M25 1x M32</p>	<p>6 ... 13 9 ... 17 13 ... 21</p>	<p>19 43 310 0755 19 43 310 0756 19 43 310 0757</p>	
<p>Han-Eco® B, Protection cover, for hoods, IP66</p>			<p>19 43 210 5442</p>	

Double locking lever

Han Eco


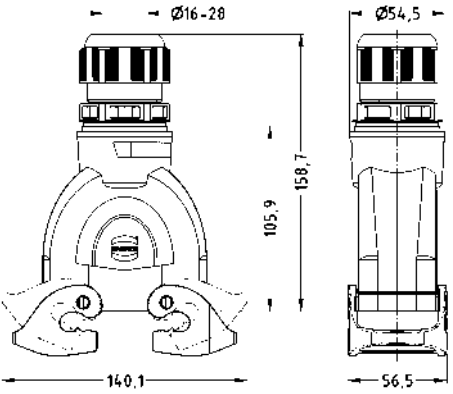

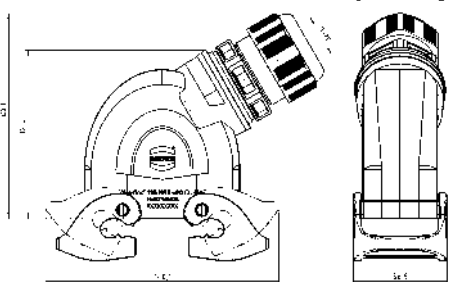

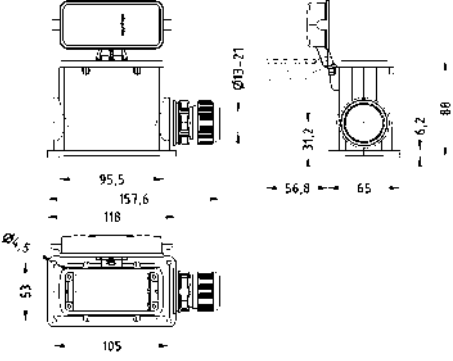
Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)	
Han-Eco® B, Hood, With integrated cable gland, Top entry, IP66 	1x M25 1x M32 1x M40	9 ... 17 13 ... 21 16 ... 28	19 43 116 0426 19 43 116 0427 19 43 116 0428		
Han-Eco® B, Hood, With integrated cable gland, Side entry, IP66 	1x M25 1x M32 1x M40	9 ... 17 13 ... 21 16 ... 28	19 43 116 0526 19 43 116 0527 19 43 116 0528		
Han-Eco® B, Bulkhead mounted housing, IP66 			19 43 216 0320	 <p>Panel cut out Front mounting / Rear mounting</p>	

Han  
Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Bulkhead mounted housing, Without frame, IP66 Please order frame 19 43 016 0001 separately.</p>			19 43 216 0310	<p>Panel cut out Front mounting / Rear mounting</p>
<p>Han-Eco® B, Surface mounted housing, With integrated cable gland, Side entry, IP66</p> 	<p>1x M25 1x M32 1x M40 2x M25 2x M32 2x M40</p>	<p>9 ... 17 13 ... 21 16 ... 28 9 ... 17 13 ... 21 16 ... 28</p>	<p>19 43 316 0231 19 43 316 0232 19 43 316 0233 19 43 316 0271 19 43 316 0272 19 43 316 0273</p>	
<p>Han-Eco® B, Cable to cable housing, With integrated cable gland, Top entry, IP66</p> 	<p>1x M25 1x M32 1x M40</p>	<p>9 ... 17 13 ... 21 16 ... 28</p>	<p>19 43 316 0736 19 43 316 0737 19 43 316 0738</p>	
<p>Han-Eco® B, Protection cover, for hoods, IP66</p>			19 43 216 5422	


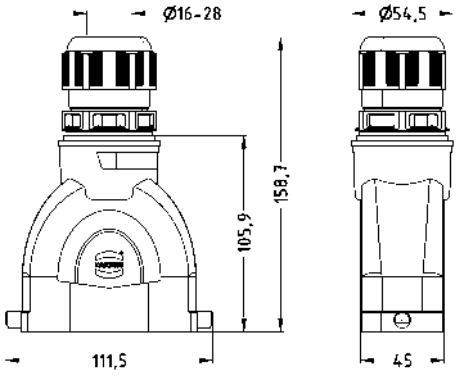

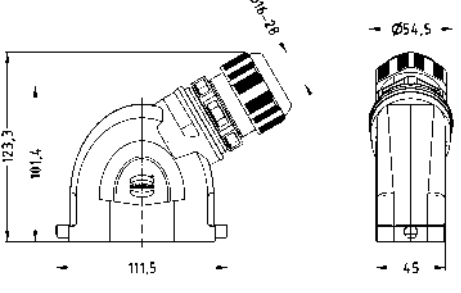

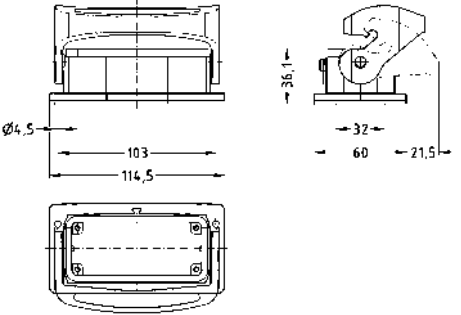
Double locking lever (on the hood)

Han  
Eco


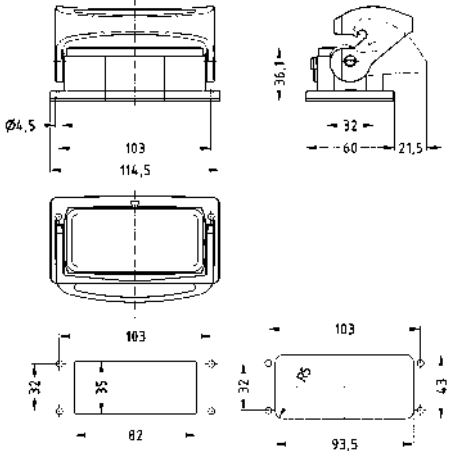

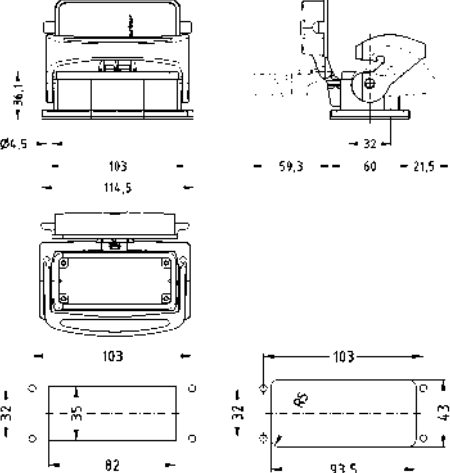

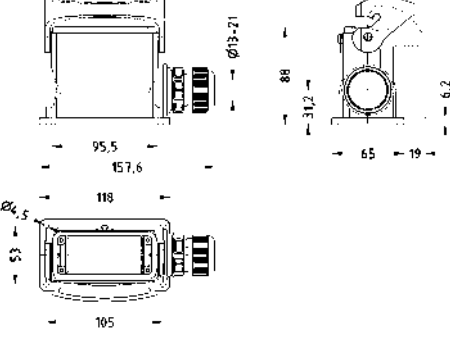
Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Han-Eco® B, Hood, With integrated cable gland, Top entry, IP66  	1x M40	16 ... 28	19 43 116 0438	
Han-Eco® B, Hood, With integrated cable gland, Side entry, IP66  	1x M40	16 ... 28	19 43 116 0538	
Han-Eco® B, Surface mounted housing, With thermo-plastic cover, With integrated cable gland, Side entry, IP66  	1x M40 2x M40	16 ... 28 16 ... 28	19 43 316 0228 19 43 316 0268	

Single locking lever


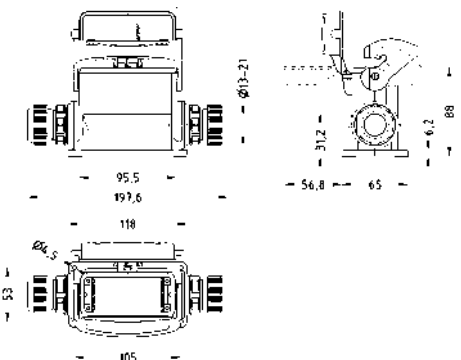

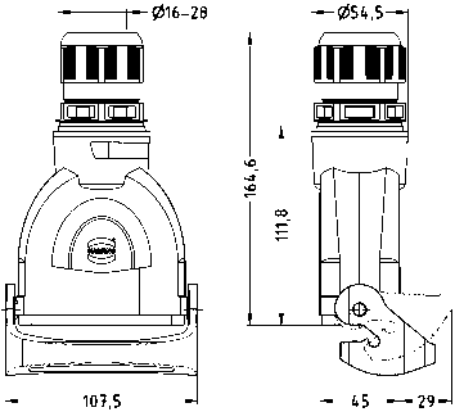
Han  
Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Han-Eco® B, Hood, With integrated cable gland, Top entry, IP66  	1x M25 1x M32 1x M40	9 ... 17 13 ... 21 16 ... 28	19 43 116 0446 19 43 116 0447 19 43 116 0448	
Han-Eco® B, Hood, With integrated cable gland, Side entry, IP66  	1x M25 1x M32 1x M40	9 ... 17 13 ... 21 16 ... 28	19 43 116 0546 19 43 116 0547 19 43 116 0548	
Han-Eco® B, Bulkhead mounted housing, IP66  			19 43 216 0340	




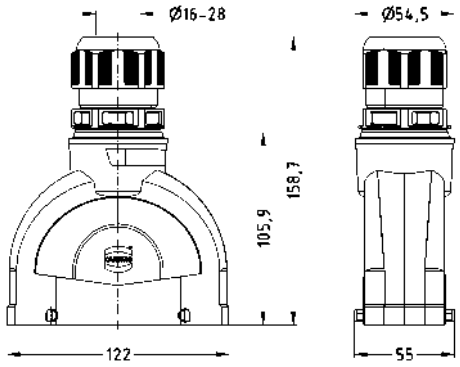

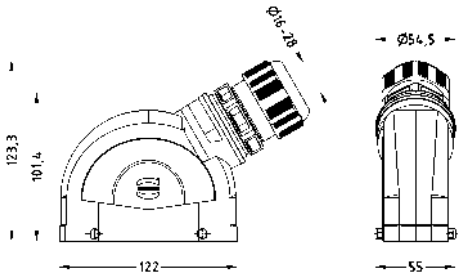

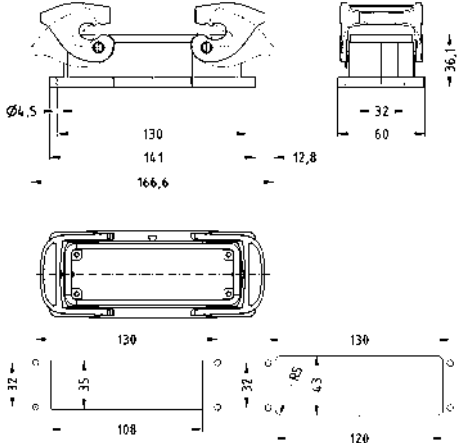
Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Bulkhead mounted housing, Without frame, IP66</p>  <p>Please order frame 19 43 016 0001 separately.</p>			19 43 216 0330	 <p>Panel cut out Front mounting / Rear mounting</p>
<p>Han-Eco® B, Bulkhead mounted housing, With thermo-plastic cover, IP66</p> 			19 43 216 0341	 <p>Panel cut out Front mounting / Rear mounting</p>
<p>Han-Eco® B, Surface mounted housing, With integrated cable gland, Side entry, IP66</p> 	<p>1x M25 1x M32 1x M40 2x M25 2x M32 2x M40</p>	<p>9 ... 17 13 ... 21 16 ... 28 9 ... 17 13 ... 21 16 ... 28</p>	<p>19 43 316 0251 19 43 316 0252 19 43 316 0253 19 43 316 0291 19 43 316 0292 19 43 316 0293</p>	

Han  
Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Surface mounted housing, With thermo-plastic cover, With integrated cable gland, Side entry, IP66</p> 	<p>1x M25 1x M32 1x M40 2x M25 2x M32 2x M40</p>	<p>9 ... 17 13 ... 21 16 ... 28 9 ... 17 13 ... 21 16 ... 28</p>	<p>19 43 316 0256 19 43 316 0257 19 43 316 0258 19 43 316 0296 19 43 316 0297 19 43 316 0298</p>	
<p>Han-Eco® B, Cable to cable housing, With integrated cable gland, Top entry, IP66</p> 	<p>1x M25 1x M32 1x M40</p>	<p>9 ... 17 13 ... 21 16 ... 28</p>	<p>19 43 316 0756 19 43 316 0757 19 43 316 0758</p>	
<p>Han-Eco® B, Protection cover, for hoods, IP66</p>			<p>19 43 216 5442</p>	

Double locking lever

Han Eco


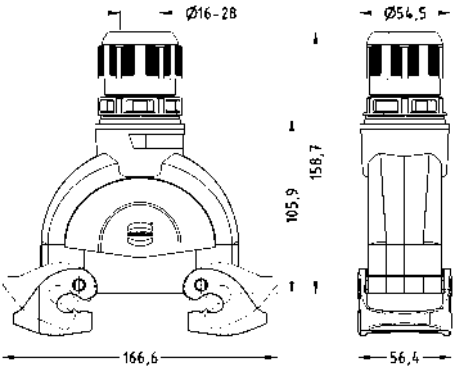

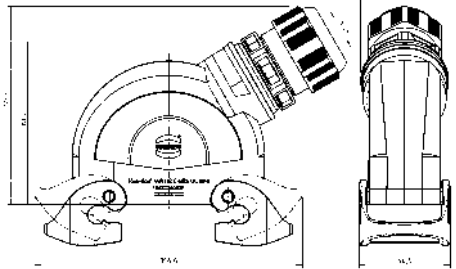

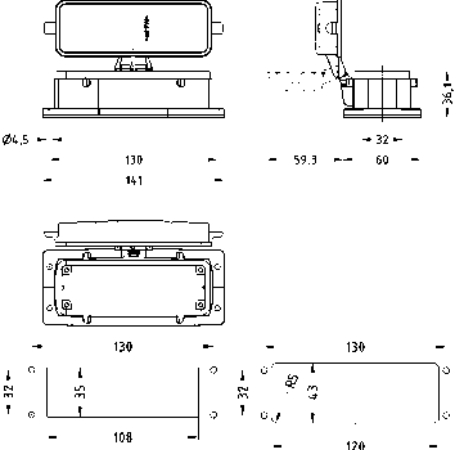
Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Hood, With integrated cable gland, Top entry, IP66</p> 	<p>1x M32 1x M40</p>	<p>13 ... 21 16 ... 28</p>	<p>19 43 124 0427 19 43 124 0428</p>	
<p>Han-Eco® B, Hood, With integrated cable gland, Side entry, IP66</p> 	<p>1x M32 1x M40</p>	<p>13 ... 21 16 ... 28</p>	<p>19 43 124 0527 19 43 124 0528</p>	
<p>Han-Eco® B, Bulkhead mounted housing, IP66</p> 			<p>19 43 224 0320</p>	 <p>Panel cut out Front mounting / Rear mounting</p>

Han Eco


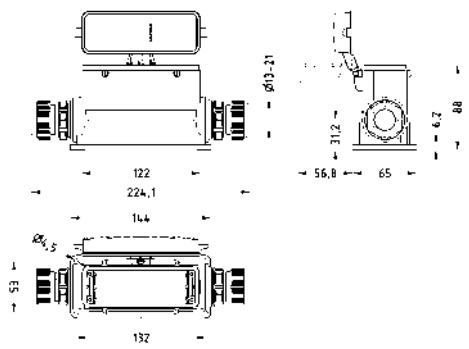
Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Han-Eco® B, Bulkhead mounted housing, Without frame, IP66 Please order frame 19 43 024 0001 separately.			19 43 224 0310	<p>Panel cut out                      Front mounting / Rear mounting</p>
Han-Eco® B, Surface mounted housing, With integrated cable gland, Side entry, IP66	1x M25 1x M32 1x M40 2x M25 2x M32 2x M40	9 ... 17 13 ... 21 16 ... 28 9 ... 17 13 ... 21 16 ... 28	19 43 324 0231 19 43 324 0232 19 43 324 0233 19 43 324 0271 19 43 324 0272 19 43 324 0273	
Han-Eco® B, Cable to cable housing, With integrated cable gland, Top entry, IP66	1x M32 1x M40	13 ... 21 16 ... 28	19 43 324 0737 19 43 324 0738	
Han-Eco® B, Protection cover, for hoods, IP66			19 43 224 5422	

Double locking lever (on the hood)

Han Eco


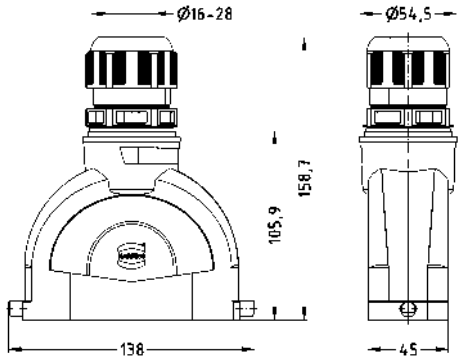

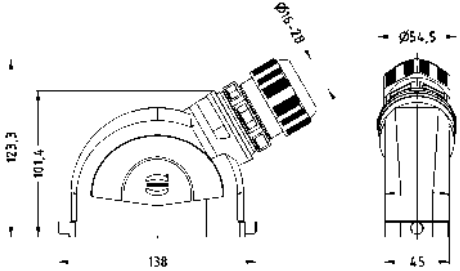

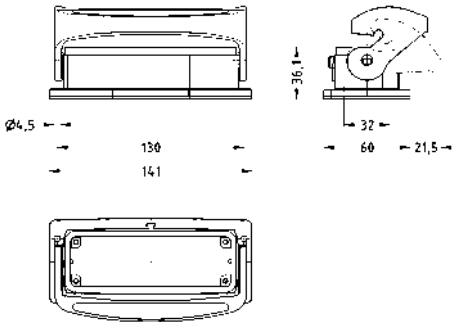
Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Hood, With integrated cable gland, Top entry, IP66</p> 	1x M40	16 ... 28	19 43 124 0438	
<p>Han-Eco® B, Hood, With integrated cable gland, Side entry, IP66</p> 	1x M40	16 ... 28	19 43 124 0538	
<p>Han-Eco® B, Bulkhead mounted housing, With thermo-plastic cover, IP66</p> 			19 43 224 0322	 <p>Panel cut out Front mounting / Rear mounting</p>

Han  
Eco



Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Surface mounted housing, With thermo-plastic cover, With integrated cable gland, Side entry, IP66</p> 	<p>1x M32 1x M40 2x M32 2x M40</p>	<p>13 ... 21 16 ... 28 13 ... 21 16 ... 28</p>	<p>19 43 324 0227 19 43 324 0228 19 43 324 0267 19 43 324 0268</p>	

Single locking lever


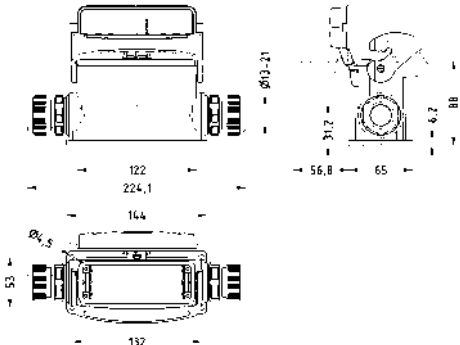

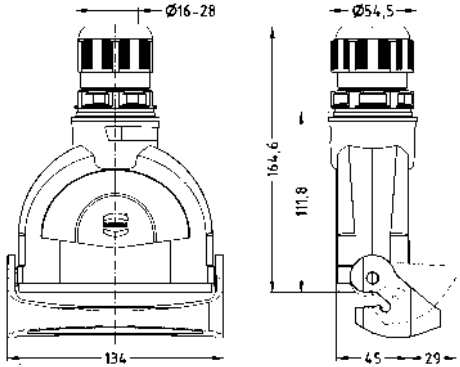
Han  
Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Han-Eco® B, Hood, With integrated cable gland, Top entry, IP66  	1x M32 1x M40	13 ... 21 16 ... 28	19 43 124 0447 19 43 124 0448	
Han-Eco® B, Hood, With integrated cable gland, Side entry, IP66  	1x M32 1x M40	13 ... 21 16 ... 28	19 43 124 0547 19 43 124 0548	
Han-Eco® B, Bulkhead mounted housing, IP66  			19 43 224 0340	

Han Eco

Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Bulkhead mounted housing, Without frame, IP66 Please order frame 19 43 024 0001 separately.</p>			19 43 224 0330	<p>Panel cut out Front mounting / Rear mounting</p>
<p>Han-Eco® B, Bulkhead mounted housing, With thermo-plastic cover, IP66</p> 			19 43 224 0341	<p>Panel cut out Front mounting / Rear mounting</p>
<p>Han-Eco® B, Surface mounted housing, With integrated cable gland, Side entry, IP66</p> 	<p>1x M25 1x M32 1x M40 2x M25 2x M32 2x M40</p>	<p>9 ... 17 13 ... 21 16 ... 28 9 ... 17 13 ... 21 16 ... 28</p>	<p>19 43 324 0251 19 43 324 0252 19 43 324 0253 19 43 324 0291 19 43 324 0292 19 43 324 0293</p>	



Identification	Cable entry	Clamping range (mm)	Part number	Drawing (dimensions in mm)
<p>Han-Eco® B, Surface mounted housing, With thermo-plastic cover, With integrated cable gland, Side entry, IP66</p> 	<p>1x M25 1x M32 1x M40 2x M25 2x M32 2x M40</p>	<p>9 ... 17 13 ... 21 16 ... 28 9 ... 17 13 ... 21 16 ... 28</p>	<p>19 43 324 0256 19 43 324 0257 19 43 324 0258 19 43 324 0296 19 43 324 0297 19 43 324 0298</p>	
<p>Han-Eco® B, Cable to cable housing, With integrated cable gland, Top entry, IP66</p> 	<p>1x M32 1x M40</p>	<p>13 ... 21 16 ... 28</p>	<p>19 43 324 0757 19 43 324 0758</p>	
<p>Han-Eco® B, Protection cover, for hoods, IP66</p>			<p>19 43 224 5442</p>	

Number of contacts

# 1

Han  
Eco

## Technical characteristics


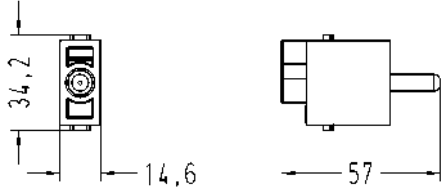

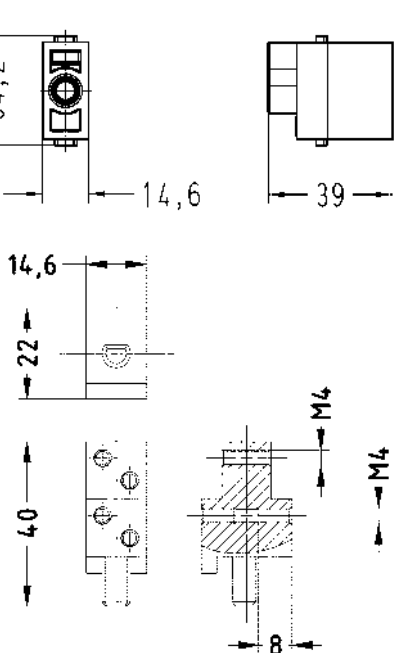
Number of contacts	1
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material (contacts)	Copper alloy
Material (accessories)	Copper alloy

## Technical characteristics

RoHS compliant with exemption

## Specifications and approvals

UL 1977 ECBT2.E235076  
IEC 61984

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han-Eco® Modular, Contact module, Screw termination</p>  <p>With 09 99 000 0830 HARTING Crimping tool also cable up to 25 mm<sup>2</sup> with ferrule adaptable Not for Han-Modular® hinged frames!</p>	1.5 ... 16	19 41 001 2600	19 41 001 2700	
<p>Han-Eco® Modular, PE Multiple ground connection, Up to 8 contacts</p> 	0.5 ... 6 with cable shoe M4 (total max. 25 mm <sup>2</sup> )	19 41 000 9999	19 41 000 9999	

## Technical characteristics

Material (accessories) Polyamide (PA), Fibre-glass reinforced

## Technical characteristics

Colour (accessories) RAL 9005 (jet black)  
RoHS compliant with exemption, compliant

Identification	Size	Part number	Drawing (dimensions in mm)
Han-Eco® B, Frame, for bulkhead mounted housings	06 B	19 43 006 0001	
	10 B	19 43 010 0001	
	16 B	19 43 016 0001	
	24 B	19 43 024 0001	

## Technical characteristics

Limiting temperature -40 ... +125 °C  
Material (cable glands) Polyamide (PA)

## Technical characteristics

Colour (accessories) RAL 9005 (jet black)  
RoHS compliant

Identification      Size      Clamping range (mm)      Part number      Drawing (dimensions in mm)

Han-Eco®,  
Cable gland



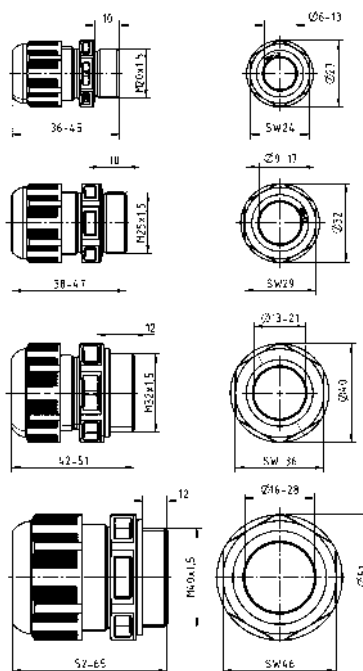
M20  
M25  
M32  
M40

6 ... 13  
9 ... 17  
13 ... 21  
16 ... 28

19 41 000 5111  
19 41 000 5121  
19 41 000 5131  
19 41 000 5141

### Tightening torque

	Fitting	Cap nut
M20	4 Nm	3 Nm
M25	10 Nm	4 Nm
M32	15 Nm	4 Nm
M40	20 Nm	20 Nm



Han-Eco®,  
Reduction seal insert



M32  
M40

9 ... 14  
12 ... 20

19 41 000 5132  
19 41 000 5142

## Technical characteristics

Material (seal) NBR

## Technical characteristics

Colour (seal) Black  
RoHS compliant

Identification	Size	Part number	Drawing (dimensions in mm)
Han-Eco® Modular, Flange gasket	06 B	19 41 000 9801	
	10 B	19 41 000 9802	
	16 B	19 41 000 9803	
	24 B	19 41 000 9804	
Han-Eco® A, Flange gasket	10 A	19 46 000 9992	
	16 A	19 46 000 9993	
Han-Eco® B, Flange gasket	06 B	19 43 000 9801	
	10 B	19 43 000 9802	
	16 B	19 43 000 9803	
	24 B	19 43 000 9804	
Han-Eco® Modular, Profile gasket	06 B	19 41 000 9901	
	10 B	19 41 000 9902	
	16 B	19 41 000 9903	
	24 B	19 41 000 9904	
Han-Eco® A, Profile gasket	10 A	19 46 000 9996	
	16 A	19 46 000 9997	

## Technical characteristics

Material (seal) FPM

## Technical characteristics

Colour (seal) RAL 7001 (silver-grey)  
RoHS compliant

Identification	Size	Part number	Drawing (dimensions in mm)
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Han-Eco® Modular,  
Flange gasket,



06 B  
10 B  
16 B  
24 B

19 41 000 9851  
19 41 000 9852  
19 41 000 9853  
19 41 000 9854

Han-Eco® Modular,  
Profile gasket,



06 B  
10 B  
16 B  
24 B

19 41 000 9951  
19 41 000 9952  
19 41 000 9953  
19 41 000 9954

Double locking lever


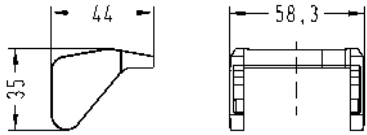

Han  
Eco

## Technical characteristics

Material (accessories) Polyamide (PA)

## Technical characteristics

Colour (accessories) Black  
RoHS compliant

Identification	Size	Part number	Drawing (dimensions in mm)
Han-Eco® Modular, Locking levers 	6/10/16/24 B	19 41 000 5201	
Han-Eco® B, Locking levers 	10/16/24 B	19 43 000 5221	

Single locking lever

Han  
Eco

## Technical characteristics

Material (accessories) Polyamide (PA)

## Technical characteristics

Colour (accessories) Black  
RoHS compliant

Identification	Size	Part number	Drawing (dimensions in mm)
----------------	------	-------------	-------------------------------

Han-Eco® A,  
Locking levers



10 A  
16 A

19 46 000 5201  
19 46 000 5202

Han-Eco® B,  
Locking levers



06 B  
10 B  
16 B  
24 B

19 43 000 5222  
19 43 000 5228  
19 43 000 5229  
19 43 000 5230



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Standard hoods/housings Han® B.....	<b>Han 31.30</b>
Han® Easy Hood hoods/housings .....	<b>Han 31.90</b>
Han-Drive® hoods/housings .....	<b>Han 31.94</b>
Han® 3 M hoods/housings.....	<b>Han 31.98</b>
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Han® EMC hoods/housings.....	<b>Han 31.130</b>
Han® EMC/B hoods/housings .....	<b>Han 31.137</b>
Han® 3 HPR hoods/housings .....	<b>Han 31.157</b>
Han® HPR hoods/housings .....	<b>Han 31.172</b>
Han-INOX® hoods/housings.....	<b>Han 31.203</b>

## Han® 3 A Standard Hoods/Housings Metal hoods/housings for industrial applications

Material	zinc die-cast
Colour	RAL 7037 (grey)
Surface	powder-coated
Locking element	steel, zinc-plated
Lever type	lever, metal
Hoods/Housings seal	NBR
Limiting temperatures	-40 °C ... +125 °C
Approval acc. to UL 50	NEMA Type 12
Flammability acc. to UL 94	V 0
Degree of protection acc. to DIN EN 60 529 for coupled connector	IP44 IP65 / IP67 is achieved with seal screw 09 20 000 9918

## Han-Drive® Housings for motor applications

Material	aluminium die-cast
Colour	non coloured / RAL 7037 (grey)
Surface	electrical conductive / powder-coated / unpainted
Locking element	stainless steel
Lever type	Han-Easy Lock®
Hoods/Housings seal	NBR
Limiting temperatures	-40 °C ... +125 °C
Approval acc. to UL 50	NEMA Type 4/4X/12
Degree of protection acc. to DIN EN 60 529 for coupled connector	IP65

## Han® 3 A Hoods/Housings Plastic hoods/housings for industrial applications

Material	polycarbonate
Colour	RAL 7032 (light grey) / RAL 9005 (black)
Locking element	polyamide
Lever type	lever, plastic
Hoods/Housings seal	NBR
Limiting temperatures	-40 °C ... +125 °C
Approval acc. to UL 50	NEMA Type 4/4X/12
Flammability acc. to UL 94	V 0
Degree of protection acc. to DIN EN 60 529 for coupled connector	IP44 IP65 / IP67 is achieved with seal screw 09 20 000 9918

## Han® 3 M Hoods/Housings Hoods/Housings for higher environmental requirements

Material	zinc die-cast
Colour	RAL 9005 (black)
Surface	- Top coat epoxy powder paint
Locking element	stainless steel
Lever type	lever, metal
Hoods/Housings seal	FPM
Limiting temperatures	-40 °C ... +125 °C
Corrosion resistance	ASTM B117-09 (500 h)
Degree of protection acc. to DIN EN 60 529 for coupled connector	IP65, IP67

## Han® Standard Hoods/Housings Metal hoods/housings for industrial applications

Material	aluminium die-cast
Colour	RAL 7037 (grey)
Surface	powder-coated
Locking element	stainless steel
Lever type	Han-Easy Lock®
Hoods/Housings seal	NBR
Limiting temperatures	-40 °C ... +125 °C
Approval acc. to UL 50	NEMA Type 4/4X/12
Degree of protection acc. to DIN EN 60 529 for coupled connector	IP65, IP66, IP67

## Han® M Hoods/Housings Hoods/Housings for higher environmental requirements

Material	aluminium die-cast
Colour	RAL 9005 (black)
Surface	- Top coat epoxy powder paint
Locking element	stainless steel
Lever type	lever, metal
Hoods/Housings seal	FPM
Limiting temperatures	-40 °C ... +125 °C
Approval acc. to UL 50	NEMA Type 4/4X/12
Corrosion resistance	ASTM B117-09 (500 h)
Degree of protection acc. to DIN EN 60 529 for coupled connector	IP65, IP66, IP67

## Han® 3 EMC Hoods/Housings Hoods/Housings for higher EMC requirements

Material	zinc die-cast
Colour	non coloured
Surface	electrical conductive
Locking element	steel, zinc-plated
Lever type	lever, metal
Hoods/Housings seal	NBR
Limiting temperatures	-40 °C ... +125 °C
Approval acc. to UL 50	NEMA Type 12
Degree of protection acc. to DIN EN 60 529 for coupled connector	IP44 IP65 / IP67 is achieved with seal screw 09 20 000 9918

## Han-INOX® Hoods/Housings for higher corrosion requirements

Material	stainless steel
Colour	non coloured
Surface	electrical conductive
Locking element	stainless steel
Lever type	lever, metal
Hoods/Housings seal	NBR
Limiting temperatures	-40 °C ... +125 °C
Approval acc. to UL 50	NEMA Type 4/4X/12
Degree of protection acc. to DIN EN 60 529 for coupled connector	IP65
- Size Han® 3 A	IP65, IP67

## Han® EMC Hoods/Housings Hoods/Housings for higher EMC requirements

Material	aluminium die-cast
Colour	non coloured
Surface	electrical conductive
Locking element	
- Screw locking	M5
- Material	stainless steel
- Tightening torque	3 Nm
Hoods/Housings seal	NBR
Limiting temperatures	-40 °C ... +125 °C
Approval acc. to UL 50	NEMA Type 4/4X/12
Degree of protection acc. to DIN EN 60 529 for coupled connector	IP65

## Han® 3 HPR Hoods/Housings Hoods/Housings for harsh environmental requirements

Material	zinc die-cast
Colour	RAL 9005 (black)
Surface	
- Top coat	epoxy powder paint / chromated
Locking element	
- Screw locking	M4
- Material	stainless steel
- Tightening torque	2 Nm
Hoods/Housings seal	NBR
Limiting temperatures	-40 °C ... +125 °C
Corrosion resistance	ASTM B117-09 (500 h)
Degree of protection acc. to DIN EN 60 529 for coupled connector	IP65 / IP68 / IP69K

**Attention**  
If inserts of the series Han® Q and Han A® are used, the seal on the insert must be removed. The sealed screw of the insulation body must be replaced by the sealed screw of the hood.  
For angled bulkhead or surface mounted housings with through holes in the mounting flange the user must make sure, that the fixing screws seal to the inner part of the housing.

## Han® EMC/B Hoods/Housings Hoods/Housings for higher EMC requirements

Material	
- Hoods/Housings	aluminium die-cast
- shielded frames	zinc die-cast alloy
Colour	non coloured
Surface	
- Hoods/Housings	electrical conductive
- shielded frames	electrical conductive
Locking element	stainless steel
Lever type	Han-Easy Lock®
Hoods/Housings seal	NBR
Limiting temperatures	-40 °C ... +125 °C
Approval acc. to UL 50	NEMA Type 4/4X/12
Degree of protection acc. to DIN EN 60 529 for coupled connector	IP65, IP66

## Han® HPR Hoods/Housings Hoods/Housings for harsh environmental requirements

Material	aluminium die-cast, corrosion resistant
Colour	RAL 9005 (black)
Surface	
- Top coat	epoxy powder paint
Locking element	
- Screw locking	M6
- Material	stainless steel
- Tightening torque	4 Nm
- Toggle locking	
- Material	stainless steel
Hoods/Housings seal	NBR
Limiting temperatures	-40 °C ... +125 °C
Approval acc. to UL 50	NEMA Type 4/4X/12
Corrosion resistance	ASTM B117-09 (500 h)
Degree of protection acc. to DIN EN 60 529 for coupled connector	IP65 / IP66 / IP68 / IP69K

## Features

- Standard Hoods/housings for industrial applications
- Slim, space saving construction type

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP44, IP65 / IP67, with seal screw 09 20 000 9918
Type rating acc. to UL 50 / UL 50E	12
Material (hood/housing)	Zinc die-cast
Surface (hood/housing)	Powder-coated
Colour (hood/housing)	RAL 7037 (dust grey)
Material (seal)	NBR
Material (locking)	Steel
Surface (locking)	Zinc plated
RoHS	compliant with exemption, compliant


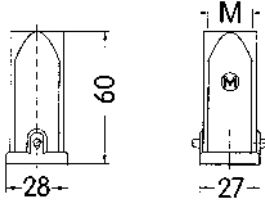

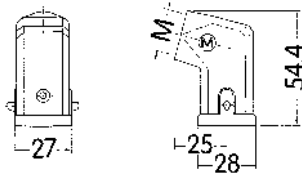

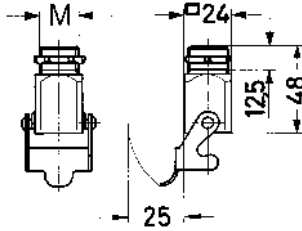

## Specifications and approvals

UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL






Standard Hoods/housings for industrial applications  
Single locking lever

Housings


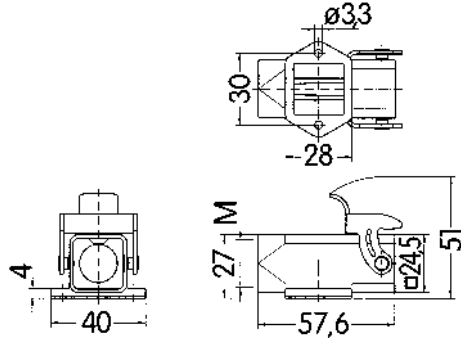


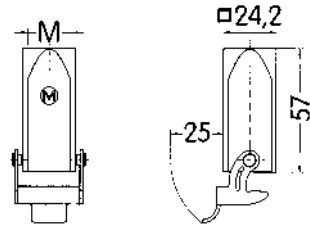

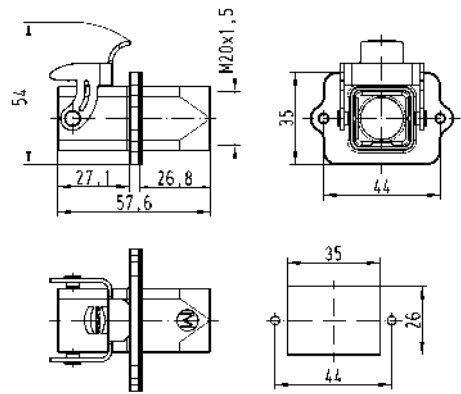
Identification	Cable entry	Cable diameter (mm)	Part number	Drawing (dimensions in mm)
Han A®, Hood, With integrated cable gland, Top entry, IP44, IP65 / IP67 with seal screw 09 20 000 9918	1x Integrated 1x Integrated	6 ... 12 11 ... 17	19 20 003 1421 19 20 003 1422	
				
Han A®, Hood, Top entry, IP44, IP65 / IP67 with seal screw 09 20 000 9918	1x M20 1x M25		19 20 003 1440 19 20 003 1445	
				
Han A®, Hood, Side entry, IP44, IP65 / IP67 with seal screw 09 20 000 9918	1x M20 1x M25		19 20 003 1640 19 20 003 1645	
				
Han A®, Screw mounted housing, IP44, IP65 / IP67 with seal screw 09 20 000 9918	1x M20		19 20 003 1150	
				

Housings


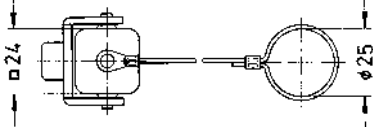

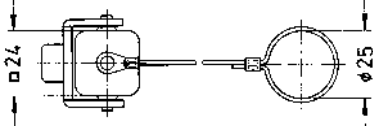

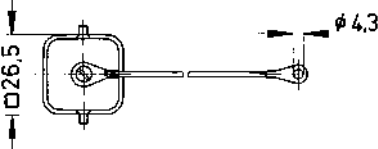

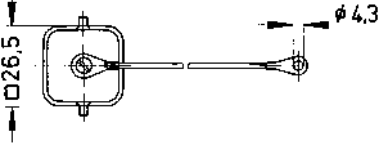
Identification	Cable entry	Cable diameter (mm)	Part number	Drawing (dimensions in mm)
<p>Han A®, Screw mounted housing, Angled, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p> 	<p>1x M20 1x M25</p>		<p>19 20 003 1160 19 20 003 1165</p>	
<p>Han A®, Bulkhead mounted housing, Straight, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p> 			<p>09 20 003 0301</p>	
<p>Han A®, Bulkhead mounted housing, Straight, With metal cover, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p>  <p>for male inserts</p>			<p>09 20 003 0305</p>	

Identification	Cable entry	Cable diameter (mm)	Part number	Drawing (dimensions in mm)
Han A®, Bulkhead mounted housing, Straight, With metal cover, With seal, IP44, IP65 / IP67 with seal screw 09 20 000 9918			09 20 003 0306	
for female inserts				
Han A®, Bulkhead mounted housing, Angled, IP44, IP65 / IP67 with seal screw 09 20 000 9918			09 20 003 0801	<p>Panel cut out 22 x 22 mm</p>
Han A®, Bulkhead mounted housing, Angled, 4 fixing screws, IP44, IP65 / IP67 with seal screw 09 20 000 9918			09 20 003 0810	
Han A®, Bulkhead mounted housing, Angled, 4 fixing screws, Square mounting flange, IP44, IP65 / IP67 with seal screw 09 20 000 9918			09 20 003 0811	

Housings


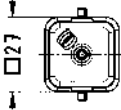

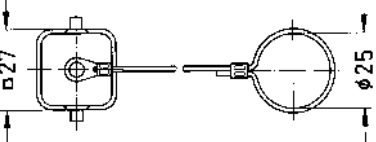

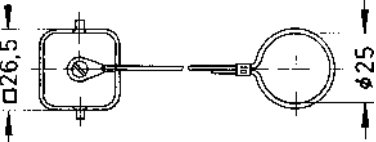
Identification	Cable entry	Cable diameter (mm)	Part number	Drawing (dimensions in mm)
<p>Han A®, Surface mounted housing, Open bottom, Top entry, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p> 	1x M20		19 20 003 1250	 <p>Panel cut out 22 x 22 mm</p>
<p>Han A®, Surface mounted housing, Bottom closed, Top entry, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p> 	1x M20		19 20 003 1252	
<p>Han A®, Cable to cable housing, Top entry, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p> 	1x M20 1x M25		19 20 003 1750 19 20 003 1755	
<p>Han A®, Panel feed through housing, Top entry, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p> 	1x M20		19 20 003 1120	 <p>Panel cut out</p>



Identification	Cable entry	Cable diameter (mm)	Part number	Drawing (dimensions in mm)
<p>Han A®, Protection cover, for hoods, Metal, With fixing cord, With seal, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p>  <p>for mounted female insert</p>			09 20 003 5421	
<p>Han A®, Protection cover, for hoods, Metal, With fixing cord, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p>  <p>for mounted male insert</p>			09 20 003 5422	
<p>Han A®, Protection cover, for bulkhead mounted housings, for surface mounted housings, Metal, With fixing cord, With seal, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p>  <p>for mounted female insert or for mounted Han-Brid® insert</p>			09 20 003 5425	
<p>Han A®, Protection cover, for bulkhead mounted housings, for surface mounted housings, Metal, With fixing cord, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p>  <p>for mounted male insert</p>			09 20 003 5426	



Housings

Identification	Cable entry	Cable diameter (mm)	Part number	Drawing (dimensions in mm)
<p>Han A®, Protection cover, for bulkhead mounted housings, for surface mounted housings, Metal, With seal, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p>  <p>for mounted female insert or for mounted Han-Brid® insert</p>			09 20 003 5432	
<p>Han A®, Protection cover, for cable to cable housing, Metal, With fixing cord, With seal, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p>  <p>for mounted female insert or for mounted Han-Brid® insert</p>			09 20 003 5427	
<p>Han A®, Protection cover, for cable to cable housing, Metal, With fixing cord, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p> 			09 20 003 5428	

## Features

- Hoods/housings for industrial applications
- Slim, space saving construction type

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP44, IP65 / IP67, with seal screw 09 20 000 9918
Type rating acc. to UL 50 / UL 50E	4, 4X, 12
Material (hood/housing)	Polycarbonate (PC)
Colour (hood/housing)	RAL 9005 (jet black), RAL 7032 (pebble grey), Black
Material (seal)	NBR
Material (locking)	Polyamide (PA)
Colour (locking)	RAL 7032 (pebble grey), RAL 9005 (jet black)
Material flammability class acc. to UL 94	V-0
Material flammability class acc. to UL 94 (locking levers)	V-0
RoHS	compliant, compliant with exemption

## Specifications and approvals


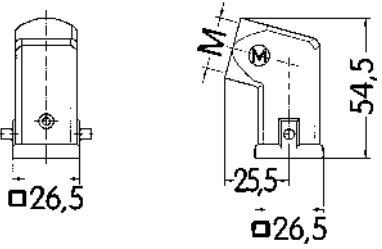


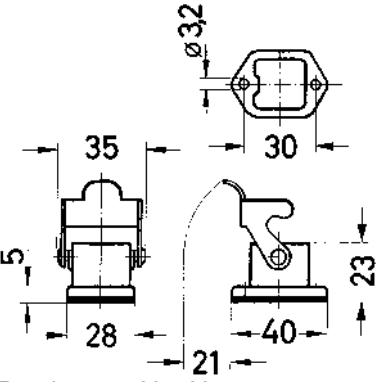
DNV GL  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076



Standard Hoods/housings for industrial applications  
Single locking lever

Housings





Identification	Cable entry	Cable diameter (mm)	Part number	Drawing (dimensions in mm)
Han A®, Hood, With integrated cable gland, Top entry, Black, IP44, IP65 / IP67 with seal screw 09 20 000 9918	1x Integrated	9 ... 17	19 20 003 0417	
Han A®, Hood, With integrated cable gland, Top entry, Grey, IP44, IP65 / IP67 with seal screw 09 20 000 9918	1x Integrated 1x Integrated	7 ... 12 9 ... 17	19 20 003 0415 19 20 003 0410	
Han A®, Hood, Top entry, Grey, IP44, IP65 / IP67 with seal screw 09 20 000 9918	1x M20 1x M25		19 20 003 0420 19 20 003 0430	
Han A®, Hood, Top entry, Black, IP44, IP65 / IP67 with seal screw 09 20 000 9918	1x M20 1x M25		19 20 003 0427 19 20 003 0437	

Identification	Cable entry	Cable diameter (mm)	Part number	Drawing (dimensions in mm)
<p>Han A®, Hood, Side entry, Grey, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p> 	1x M20		19 20 003 0620	
<p>Han A®, Hood, Side entry, Black, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p>	1x M20		19 20 003 0627	
<p>Han A®, Screw mounted housing, Black, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p> 	1x M20		19 20 003 0102	
<p>Han A®, Bulkhead mounted housing, Straight, Grey, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p> 			09 20 003 0320	 <p>Panel cut out 22 x 22 mm</p>
<p>Han A®, Bulkhead mounted housing, Straight, Black, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p>			09 20 003 0327	




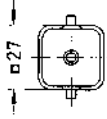

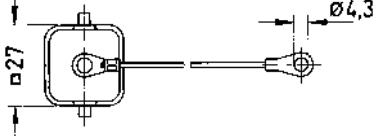

Housings

Identification	Cable entry	Cable diameter (mm)	Part number	Drawing (dimensions in mm)
Han A®, Bulkhead mounted housing, Angled, Grey, IP44, IP65 / IP67 with seal screw 09 20 000 9918			09 20 003 0820	<p>Panel cut out 22 x 22 mm</p>
Han A®, Bulkhead mounted housing, Angled, Black, IP44, IP65 / IP67 with seal screw 09 20 000 9918			09 20 003 0827	
Han A®, Surface mounted housing, Top entry, Grey, IP44, IP65 / IP67 with seal screw 09 20 000 9918	1x M20		19 20 003 0220	<p>Panel cut out 22 x 22 mm</p>
Han A®, Surface mounted housing, Top entry, Black, IP44, IP65 / IP67 with seal screw 09 20 000 9918	1x M20		19 20 003 0227	
Han A®, Cable to cable housing, Top entry, Grey, IP44, IP65 / IP67 with seal screw 09 20 000 9918	1x M20		19 20 003 0720	
Han A®, Cable to cable housing, Top entry, Black, IP44, IP65 / IP67 with seal screw 09 20 000 9918	1x M20		19 20 003 0727	


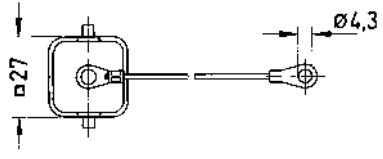


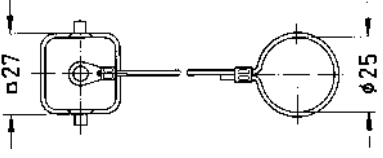

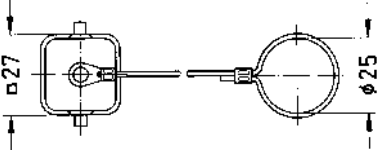
Identification	Cable entry	Cable diameter (mm)	Part number	Drawing (dimensions in mm)
<p>Han A®, Protection cover, for hoods, Thermoplastic, With fixing cord, With seal, Grey, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p>  <p>for mounted female insert or for mounted Han-Brid® insert</p>			09 20 003 5441	
<p>Han A®, Protection cover, for hoods, Thermoplastic, With fixing cord, Grey, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p>  <p>for mounted male insert</p>			09 20 003 5442	
<p>Han A®, Protection cover, for bulkhead mounted housings, for surface mounted housings, Thermoplastic, Grey, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p>  <p>for mounted male insert</p>			09 20 003 5407	
<p>Han A®, Protection cover, for bulkhead mounted housings, for surface mounted housings, Thermoplastic, With seal, Grey, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p>  <p>for mounted female insert or for mounted Han-Brid® insert</p>			09 20 003 5408	



Housings


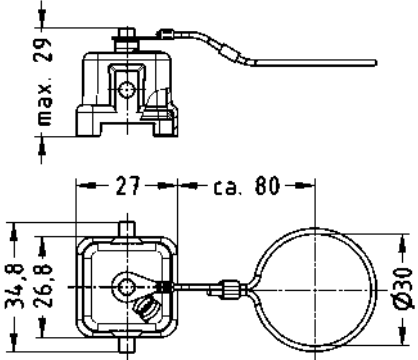
Identification	Cable entry	Cable diameter (mm)	Part number	Drawing (dimensions in mm)
<p>Han A®, Protection cover, for bulkhead mounted housings, for surface mounted housings, Thermoplastic, With seal, Black, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p> 			09 20 003 5409	
<p>for mounted female insert or for mounted Han-Brid® insert</p>				
<p>Han A®, Protection cover, for bulkhead mounted housings, for surface mounted housings, Thermoplastic, With seal, With fixing cord, Grey, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p> 			09 20 003 5445	
<p>for mounted female insert</p>				
<p>Han A®, Protection cover, for bulkhead mounted housings, for surface mounted housings, Thermoplastic, With fixing cord, Grey, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p> 			09 20 003 5446	
<p>for mounted male insert</p>				



Identification	Cable entry	Cable diameter (mm)	Part number	Drawing (dimensions in mm)
<p>Han A®, Protection cover, for bulkhead mounted housings, for surface mounted housings, Thermoplastic, With seal, With fixing cord, Black, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p>  <p>for mounted female insert</p>			09 20 003 5449	
<p>Han A®, Protection cover, for bulkhead mounted housings, for surface mounted housings, Thermoplastic, With fixing cord, Black, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p>  <p>for mounted male insert</p>			09 20 003 5450	
<p>Han A®, Protection cover, for cable to cable housing, Thermoplastic, With seal, With fixing cord, Grey, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p>  <p>for mounted female insert</p>			09 20 003 5447	
<p>Han A®, Protection cover, for cable to cable housing, Thermoplastic, With fixing cord, Grey, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p>  <p>for mounted male insert</p>			09 20 003 5448	

Housings

Housings

Identification	Cable entry	Cable diameter (mm)	Part number	Drawing (dimensions in mm)
<p>Han A®, Protection cover, for cable to cable housing, Thermoplastic, With fixing cord, Black, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p>  <p>for mounted male insert</p>			<p>09 20 003 5455</p>	

## Features

- Standard Hoods/housings for industrial applications
- Slim, space saving construction type

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP65
Type rating acc. to UL 50 / UL 50E	4, 4X, 12
Material (hood/housing)	Aluminium die-cast
Surface (hood/housing)	Powder-coated
Colour (hood/housing)	RAL 7037 (dust grey)
Material (seal)	NBR
Material (locking)	Polycarbonate (PC), Stainless steel
Colour (locking)	RAL 7037 (dust grey)
Material flammability class acc. to UL 94 (locking levers)	V-0
RoHS	compliant, compliant with exemption


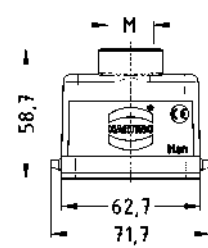
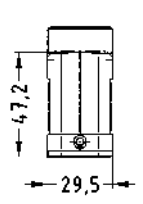

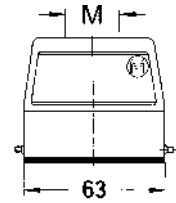
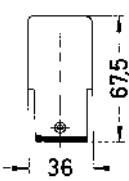

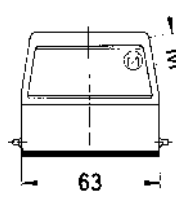
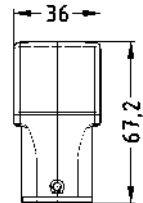
## Specifications and approvals

UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL




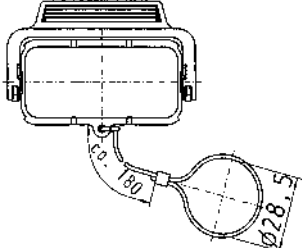

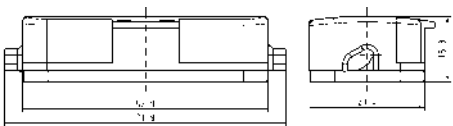

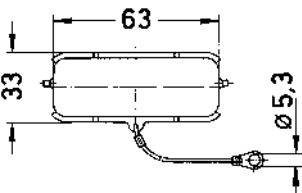
Standard Hoods/housings for industrial applications  
Single locking lever

Housings


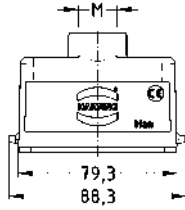
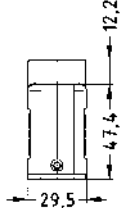

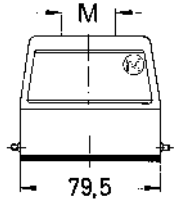
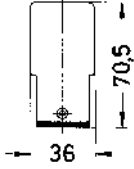

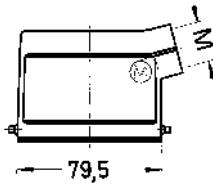
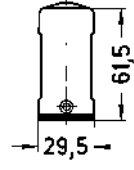
Identification	Cable entry	Part number		Drawing (dimensions in mm)	
		Low construction	High construction		
Han A®, Hood, Top entry, IP65  	1x M20 1x M25	19 20 010 1440	19 20 010 0446		
Han A®, Hood, Side entry, IP65  	1x M20 1x M25	19 20 010 1540	19 20 010 0546		
Han A®, Hood, Without cable entry, IP65  			09 20 010 0801		




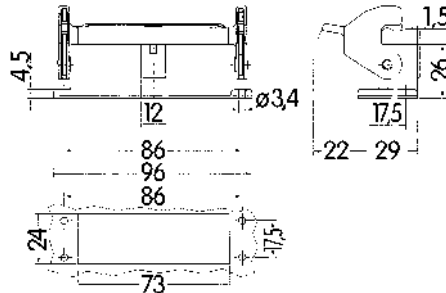

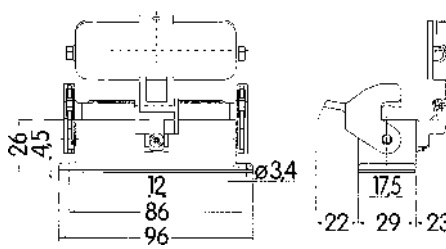

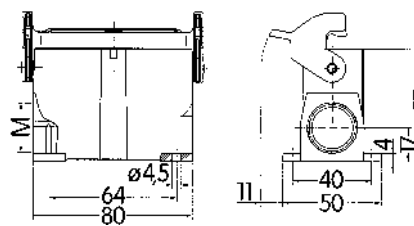

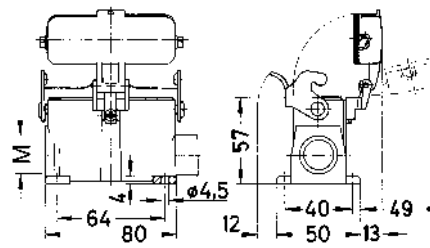

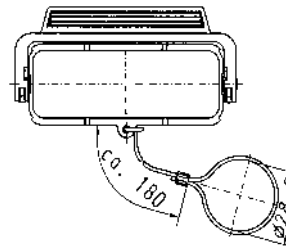
Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
<p>Han A®, Protection cover, for hoods, Metal, With fixing cord, IP65</p> 		09 20 010 5423	09 20 010 5423	
<p>Han A®, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, Thermoplastic, IP65</p> 		09 20 010 5402	09 20 010 5402	
<p>Han A®, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, Metal, With fixing cord, IP65</p> 		09 20 010 5425	09 20 010 5425	


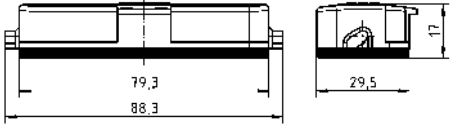

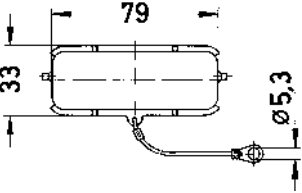
Standard Hoods/housings for industrial applications  
Single locking lever

Identification	Cable entry	Part number		Drawing (dimensions in mm)	
		Low construction	High construction		
Han A®, Hood, Top entry, IP65  	1x M20 1x M25	19 20 016 1440	19 20 016 0446		
Han A®, Hood, Side entry, IP65  	1x M20 1x M25	19 20 016 1540	19 20 016 0546		
Han A®, Hood, Without cable entry, IP65  			09 20 016 0801		

Housings


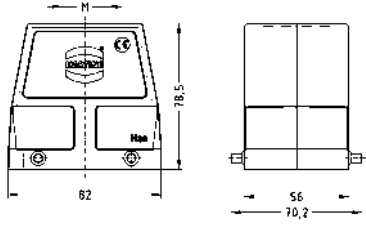

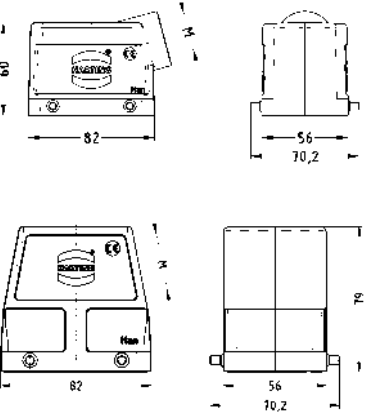

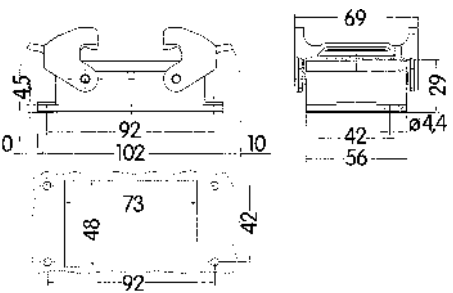

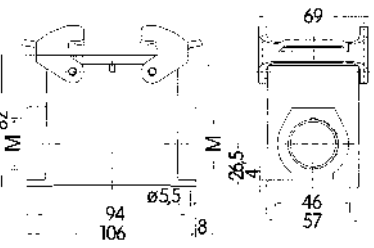
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han A®, Bulkhead mounted housing, Han-Easy Lock®, IP65  		09 20 016 0301		 <p>Panel cut out</p>
Han A®, Bulkhead mounted housing, With thermo-plastic cover, Han-Easy Lock®, IP65  		09 20 016 0321		
Han A®, Surface mounted housing, Side entry, Han-Easy Lock®, IP65  	1x M25 2x M20 2x M25	19 20 016 0251 19 20 016 0290 19 20 016 0291		
Han A®, Surface mounted housing, With thermo-plastic cover, Side entry, Han-Easy Lock®, IP65  	2x M20	19 20 016 0295		
Han A®, Protection cover, for hoods, Metal, With fixing cord, Han-Easy Lock®, IP65  		09 20 016 5423	09 20 016 5423	


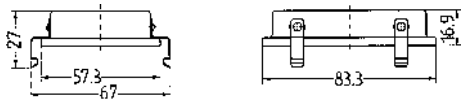



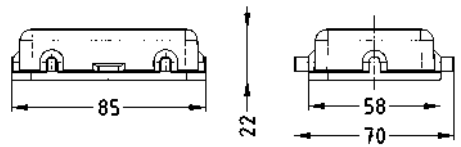

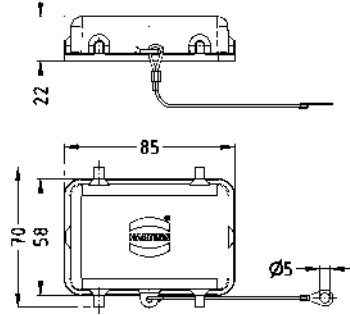


Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construc- tion	High construc- tion	
<p>Han A®, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, Thermoplastic, IP65</p> 		09 20 016 5403	09 20 016 5403	
<p>Han A®, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, Metal, With fixing cord, IP65</p> 		09 20 016 5425	09 20 016 5425	

Standard Hoods/housings for industrial applications  
Double locking lever


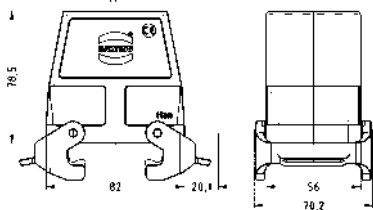

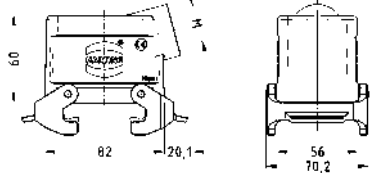
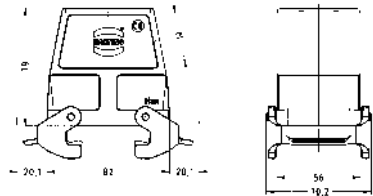

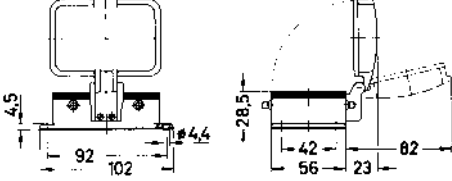
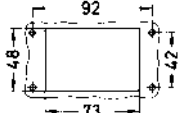
Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han A®, Hood, Top entry, IP65  	1x M25 1x M32		19 20 032 0426 19 20 032 0427	
Han A®, Hood, Side entry, IP65  	1x M25 1x M32	19 20 032 1521	19 20 032 0527	
Han A®, Bulkhead mounted housing, Han-Easy Lock®, IP65  		09 20 032 0301		 <p>Panel cut out</p>
Han A®, Surface mounted housing, Side entry, Han-Easy Lock®, IP65  	1x M25 1x M32 2x M32		19 20 032 0231 19 20 032 0232 19 20 032 0272	

Identification	Cable entry	Part number		Drawing (dimensions in mm)	
		Low construction	High construction		
<p>Han A®, Protection cover, for hoods, Metal, IP65</p> 		09 20 032 5401	09 20 032 5401		
<p>Han A®, Protection cover, for bulkhead mounted housings, for surface mounted housings, Metal, IP65</p> 		09 20 032 5405	09 20 032 5405		
<p>Han A®, Protection cover, for bulkhead mounted housings, for surface mounted housings, Thermoplastic, IP65</p> 		09 20 032 5407	09 20 032 5407		
<p>Han A®, Protection cover, for bulkhead mounted housings, for surface mounted housings, Thermoplastic, With fixing cord, IP65</p> 		09 20 032 5408	09 20 032 5408		

Standard Hoods/housings for industrial applications  
Double locking lever (on the hood)

Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han A®, Hood, Top entry, Han-Easy Lock®, IP65  	1x M32		19 20 032 0437	
Han A®, Hood, Side entry, Han-Easy Lock®, IP65  	1x M25 1x M32	19 20 032 1531	19 20 032 0537	 
Han A®, Bulkhead mounted housing, With thermo-plastic cover, IP65  		09 20 032 0302		  <p>Panel cut out</p>

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han A®, Surface mounted housing, With thermo-plastic cover, Side entry, IP65	1x M25		19 20 032 0226	<p>1) Blind way for one cable entry</p>



## Features

- Standard hoods/housings for industrial connectors
- Locking levers: Han-Easy Lock®
- Field of application: for excellent mechanical and electrical protection in demanding environments, for example, in the automobile and mechanical engineering industries also for process and regulation control applications
- Distinguishing feature: hoods/housings colour-coded grey (RAL 7037)
- Many variations: for precise industrial applications
- Reduces the number of connector interfaces required on the machine (with up to 8 Han Modular® inserts in one housing)
- Han-Easy Lock® bracket (cross) or metal bracket (longitudinal) available
- Cable entries can be designed variably (up to M50) using the hood configurator

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP65, IP66, IP67
Type rating acc. to UL 50 / UL 50E	4, 4X, 12
Material (hood/housing)	Aluminium die-cast
Surface (hood/housing)	Powder-coated
Colour (hood/housing)	RAL 7037 (dust grey)
Material (seal)	NBR
Material (locking)	Polycarbonate (PC), Stainless steel, Steel, zinc plated
Colour (locking)	RAL 7037 (dust grey)
Material (accessories)	Polyamide (PA), Stainless steel
Material flammability class acc. to UL 94 (locking levers)	V-0
RoHS	compliant, compliant with exemption

## Specifications and approvals

UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL



## Details

Standard degree of protection: IP65


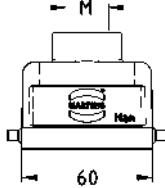
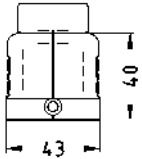

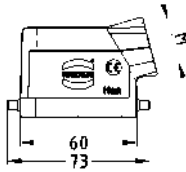
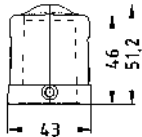

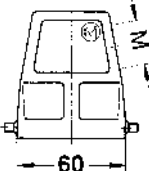
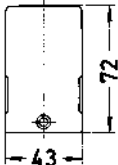
IP67 possible, in combination with special bulkhead mounted housings

IP44 for self-closing covers in unlocked position


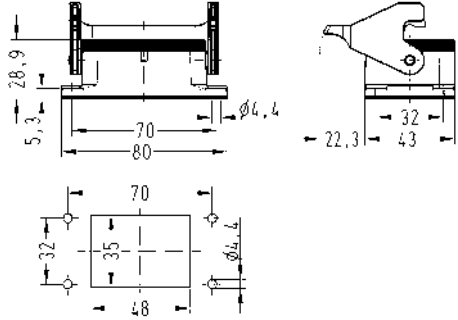

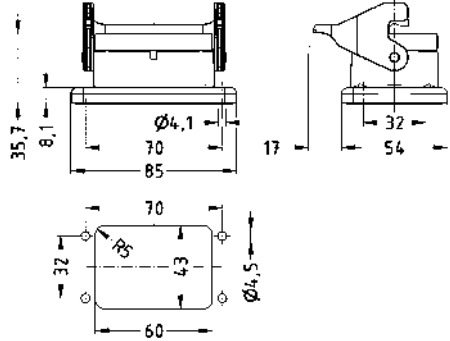

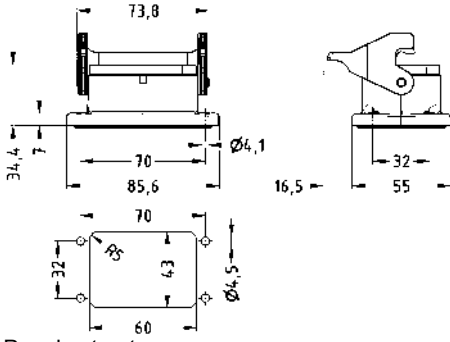

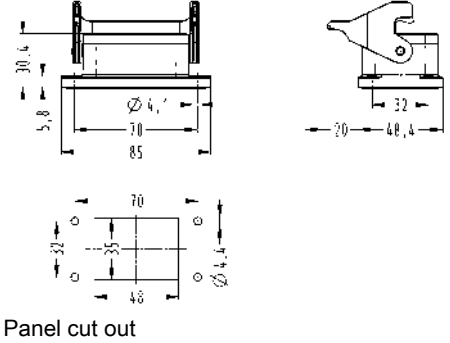


Standard hoods/housings for industrial connectors  
Single locking lever

Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)	
		Low construction	High construction		
Han® B, Hood, Top entry, IP65, IP66, IP67  	1x M20 1x M25 1x M32	19 30 006 1440	19 30 006 0446 19 30 006 0447	 	
Han® B, Hood, Side entry, IP65, IP66, IP67  	1x M20 1x M25 1x M32	19 30 006 1540 19 30 006 1541	19 30 006 0546 19 30 006 0547	 	
Han® B, Hood, Without cable entry, IP65, IP66, IP67  			09 30 006 0801	 	

Housings


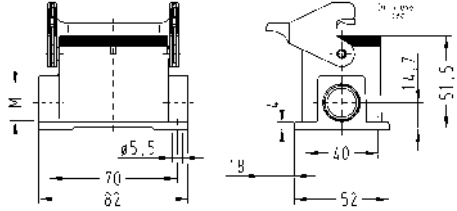
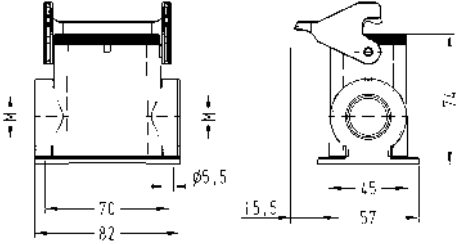

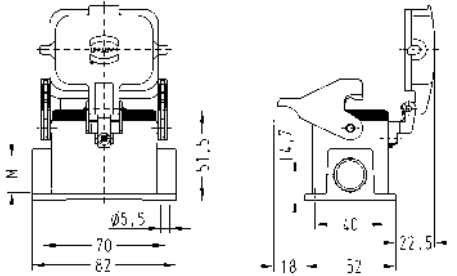
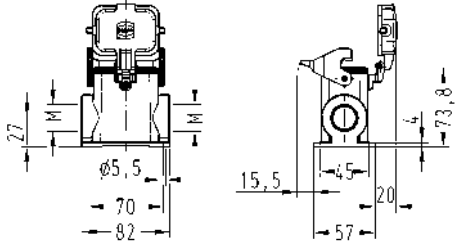

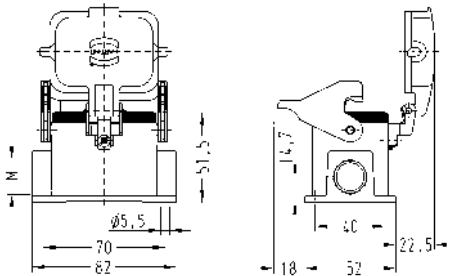
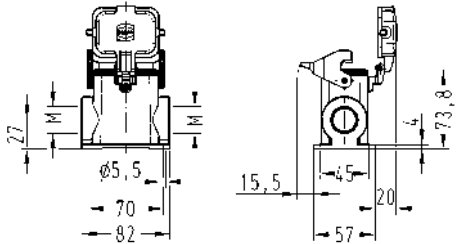
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Bulkhead mounted housing, Han-Easy Lock®, IP65  		09 30 006 0301		 <p>Panel cut out</p>
Han® B, Bulkhead mounted housing, Rear mounting, Han-Easy Lock®, IP66  Pack contents: Mounting frame is included with- in the delivery  		09 30 006 0391		 <p>Panel cut out</p>
Han® B, Bulkhead mounted housing, Rear mounting, Han-Easy Lock®, IP66  		09 30 006 0392		 <p>Panel cut out</p>
Han® B, Bulkhead mounted housing, Han-Easy Lock®, IP65, IP67  		09 30 006 1301		 <p>Panel cut out</p>


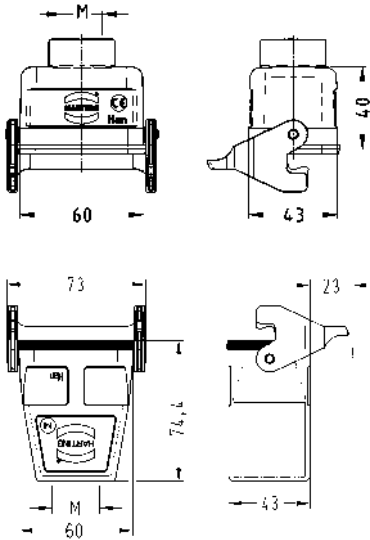

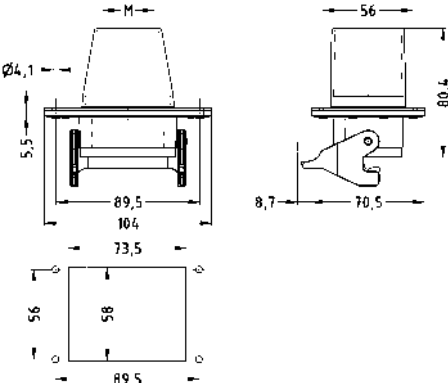

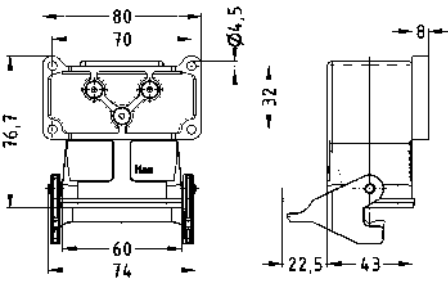

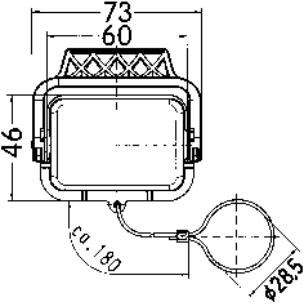


Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Bulkhead mounted housing, With thermo-plastic cover, Han-Easy Lock®, IP65		09 30 006 0302		<p>Panel cut out</p>
Han® B, Bulkhead mounted housing, With metal cover, Han-Easy Lock®, IP65		09 30 006 0318		<p>Panel cut out</p>
Han® B, Bulkhead mounted housing, With self-closing cover, Han-Easy Lock®, IP65		09 30 006 1306		<p>Panel cut out</p>
IP44 for self-closing covers in unlocked position				
Han® B, Bulkhead mounted housing, With thermo-plastic cover, Han-Easy Lock®, IP65, IP67		09 30 006 1308		<p>Panel cut out</p>



Housings


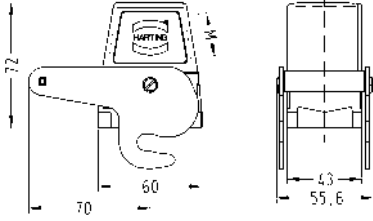

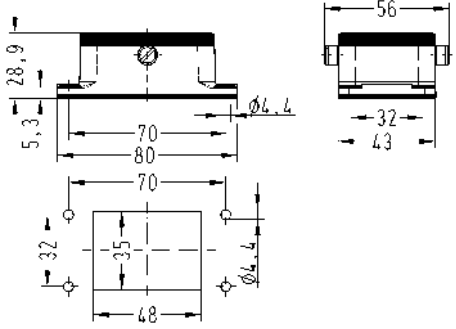

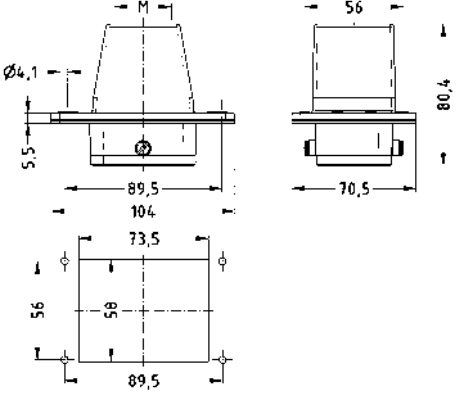
Identification	Cable entry	Part number		Drawing (dimensions in mm)	
		Low construction	High construction		
Han® B, Surface mounted housing, Side entry, Han-Easy Lock®, IP65 	1x M20 2x M20 2x M25 2x M32	19 30 006 1250 19 30 006 1290	19 30 006 0291 19 30 006 0292		
Han® B, Surface mounted housing, With thermo-plastic cover, Side entry, Han-Easy Lock®, IP65 	1x M20 2x M20 2x M25 2x M32	19 30 006 1255 19 30 006 1295	19 30 006 0296 19 30 006 0297		
Han® B, Surface mounted housing, With metal cover, Side entry, Han-Easy Lock®, IP65 	1x M20 2x M20 2x M25 2x M32	19 30 006 2255 19 30 006 2295	19 30 006 7296 19 30 006 7297		

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Cable to cable housing, Top entry, Han-Easy Lock®, IP65 	1x M20 1x M25 1x M32	19 30 006 1750	19 30 006 0756 19 30 006 0757	
Han® B, Panel feed through housing, Top entry, Han-Easy Lock®, IP65 	1x M25 1x M32		19 30 006 1121 19 30 006 1122	 <p>Panel cut out</p>
Han® B, Flange housing, Top entry, Han-Easy Lock®, IP65 	1x M25	19 30 006 0716		
Han® B, Protection cover, for hoods, With fixing cord, Han-Easy Lock®, IP65 		09 30 006 5423	09 30 006 5423	

Housings


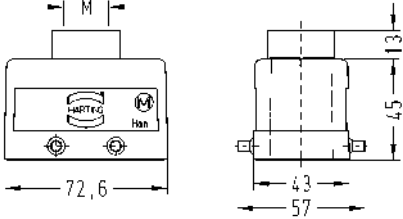
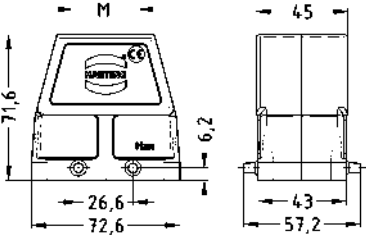

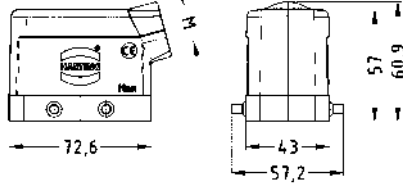
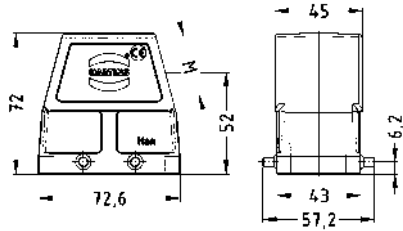

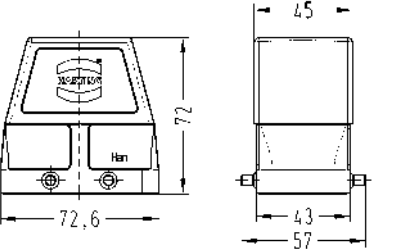
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Protection cover, for bulkhead mounted housings, for surface mounted housings, Thermoplastic, IP65		09 30 006 5405	09 30 006 5405	
Han® B, Protection cover, for bulkhead mounted housings, for surface mounted housings, Metal, With fixing cord, IP65		09 30 006 5425	09 30 006 5425	
Han® B, Protection cover, for cable to cable housing, Metal, With fixing cord, IP65		09 30 006 5427	09 30 006 5427	


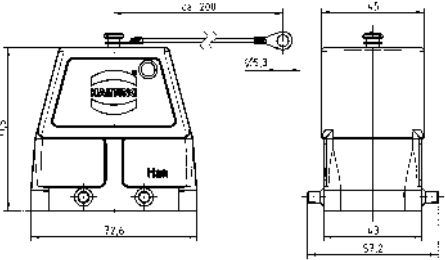

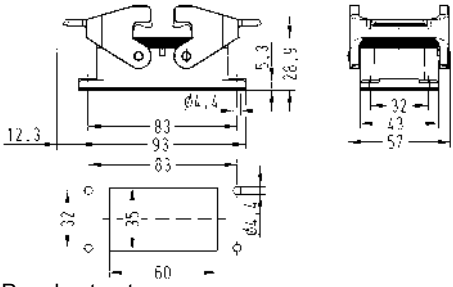

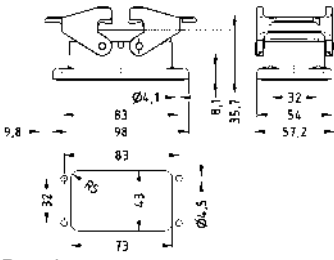

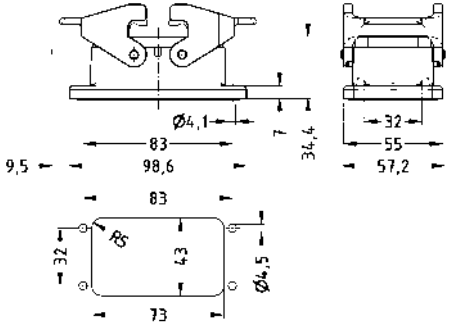
Standard hoods/housings for industrial connectors  
Central locking lever (on the hood)

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Hood, Side entry, IP65  	1x M25 1x M32		19 30 006 0586 19 30 006 0587	
Han® B, Bulkhead mounted housing, IP65  		09 30 006 0381		 <p>Panel cut out</p>
Han® B, Panel feed through housing, Top entry, IP65  	1x M25 1x M32		19 30 006 1141 19 30 006 1142	 <p>Panel cut out</p>

Standard hoods/housings for industrial connectors  
Double locking lever


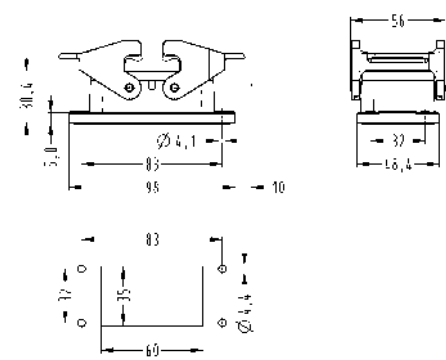

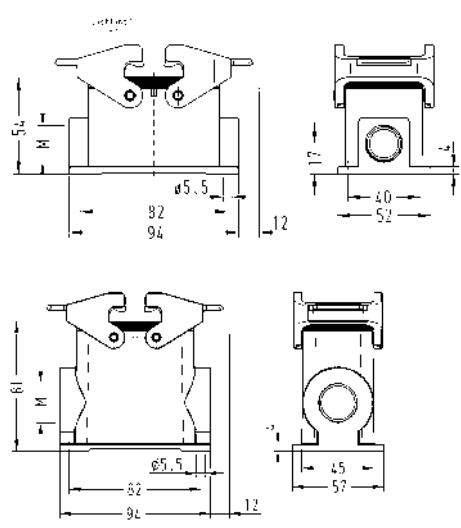

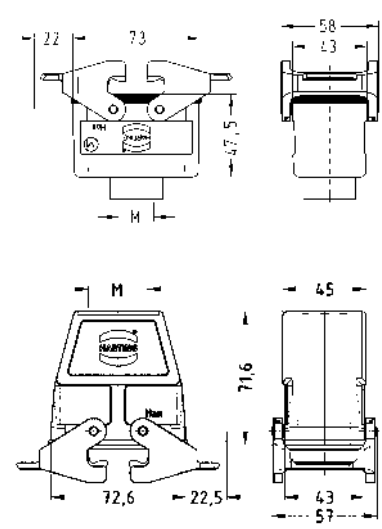
Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Hood, Top entry, IP65, IP66, IP67  	1x M20 1x M25 1x M32 1x M40 2x M20	19 30 010 1420 19 30 010 1421	19 30 010 0427 19 30 010 0428 19 30 010 0465	 
Han® B, Hood, Side entry, IP65, IP66, IP67  	1x M20 1x M25 1x M32 1x M40	19 30 010 1520 19 30 010 1521	19 30 010 0526 19 30 010 0527 19 30 010 0528	 
Han® B, Hood, Without cable entry, IP65, IP66, IP67  			09 30 010 0801	


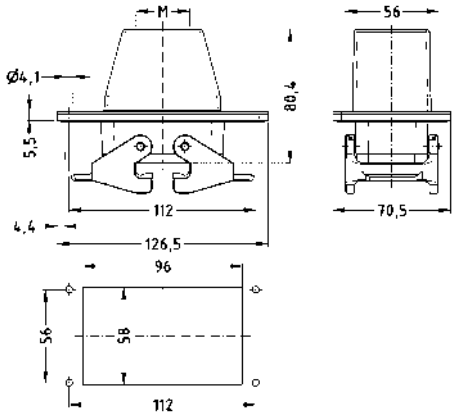

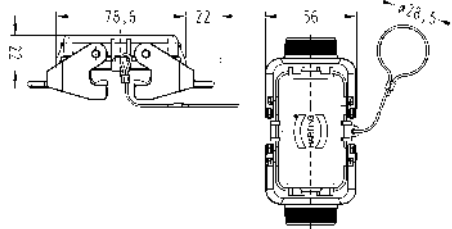

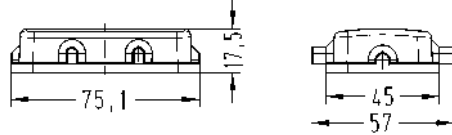

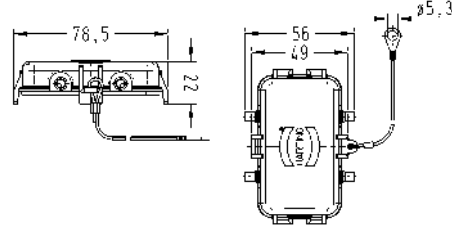

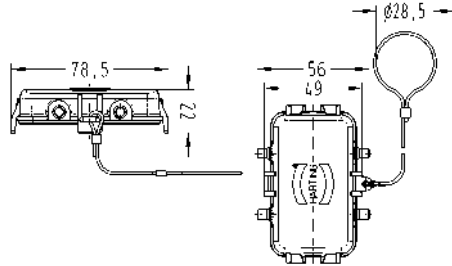
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
<p>Han® B, Hood, With fixing cord, Without cable entry, IP65, IP66, IP67</p> 			09 30 010 0802	
<p>Han® B, Bulkhead mounted housing, Han-Easy Lock®, IP65</p> 		09 30 010 0301		 <p>Panel cut out</p>
<p>Han® B, Bulkhead mounted housing, Rear mounting, Han-Easy Lock®, IP66</p> <p>Pack contents: Mounting frame is included with in the delivery</p> 		09 30 010 0391		 <p>Panel cut out</p>
<p>Han® B, Bulkhead mounted housing, Rear mounting, Han-Easy Lock®, IP66</p> 		09 30 010 0392		 <p>Panel cut out</p>



Housings


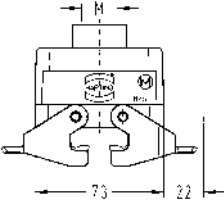
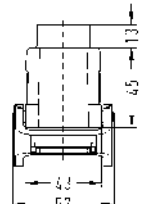
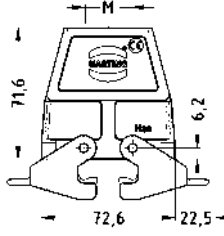
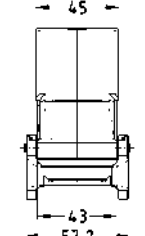

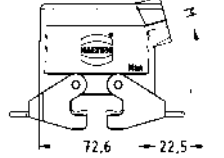
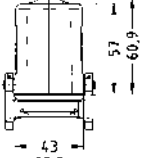
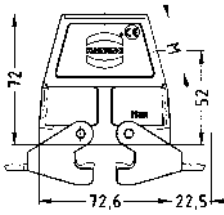
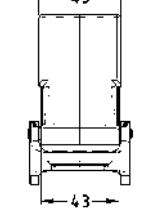
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Bulkhead mounted housing, Han-Easy Lock®, IP65, IP67  		09 30 010 1301		 Panel cut out
Han® B, Surface mounted housing, Side entry, Han-Easy Lock®, IP65  	1x M20 1x M25 2x M20 2x M25 2x M32	19 30 010 1230 19 30 010 1231 19 30 010 1270 19 30 010 1271	19 30 010 0231  19 30 010 0271 19 30 010 0272	
Han® B, Cable to cable housing, Top entry, Han-Easy Lock®, IP65  	1x M20 1x M25 1x M32 1x M40	19 30 010 1730	19 30 010 0736 19 30 010 0737 19 30 010 0738	


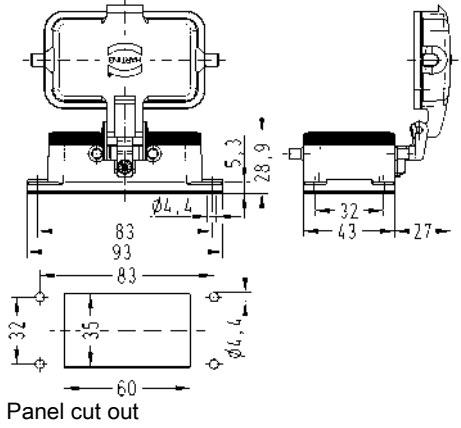

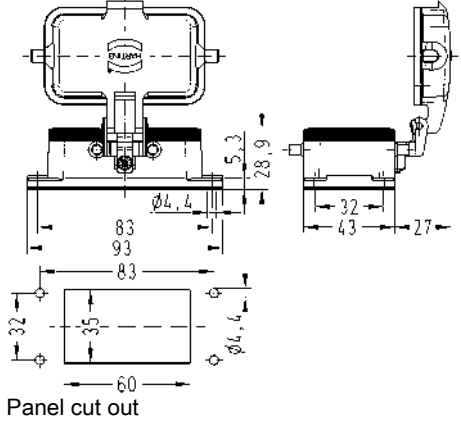



Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Panel feed through housing, Top entry, Han-Easy Lock®, IP65 	1x M25 1x M32		19 30 010 1121 19 30 010 1122	 <p>Panel cut out</p>
Han® B, Protection cover, for hoods, Metal, With fixing cord, Han-Easy Lock®, IP65 		09 30 010 5423	09 30 010 5423	
Han® B, Protection cover, for bulkhead mounted housings, for surface mounted housings, Thermoplastic, IP65 		09 30 010 5407	09 30 010 5407	
Han® B, Protection cover, for bulkhead mounted housings, for surface mounted housings, Metal, With fixing cord, IP65 		09 30 010 5425	09 30 010 5425	
Han® B, Protection cover, for cable to cable housing, Metal, With fixing cord, IP65 		09 30 010 5427	09 30 010 5427	


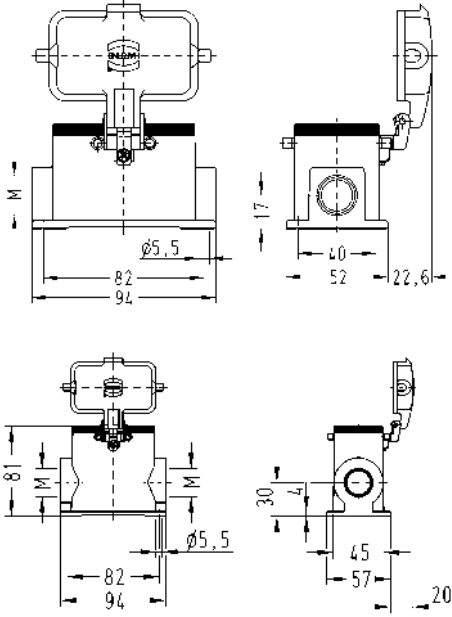

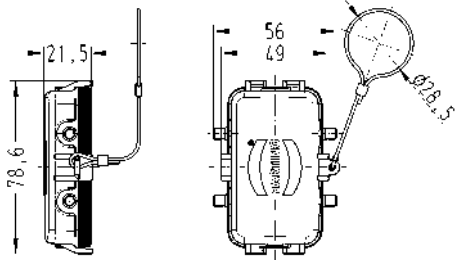
Standard hoods/housings for industrial connectors  
 Double locking lever (on the hood)

Housings


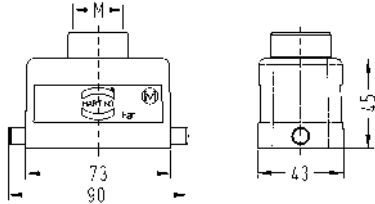
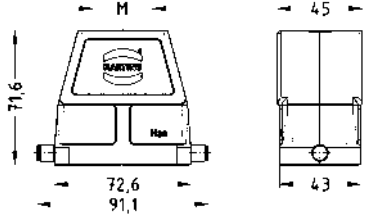

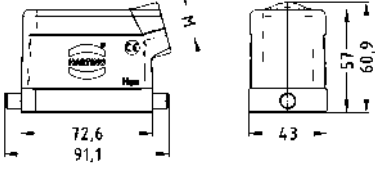
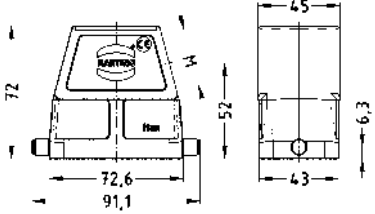

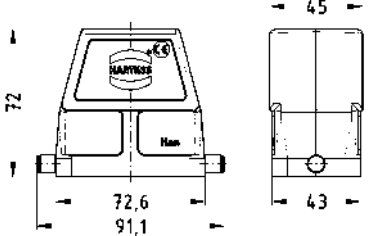
Identification	Cable entry	Part number		Drawing (dimensions in mm)	
		Low construction	High construction		
Han® B, Hood, Top entry, Han-Easy Lock®, IP65, IP66, IP67 	1x M20 1x M25	19 30 010 1430	19 30 010 0436		
					
Han® B, Hood, Side entry, Han-Easy Lock®, IP65, IP66, IP67 	1x M20 1x M25 1x M32	19 30 010 1530 19 30 010 1531	19 30 010 0537		
					

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Bulkhead mounted housing, With thermo-plastic cover, IP65  		09 30 010 0302		 <p>Panel cut out</p>
Han® B, Bulkhead mounted housing, With metal cover, IP65  		09 30 010 0317		 <p>Panel cut out</p>
Han® B, Bulkhead mounted housing, With self-closing cover, IP65, IP67  		09 30 010 1314		
IP44 for self-closing covers in unlocked position				


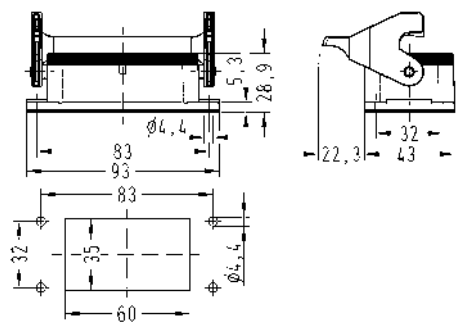

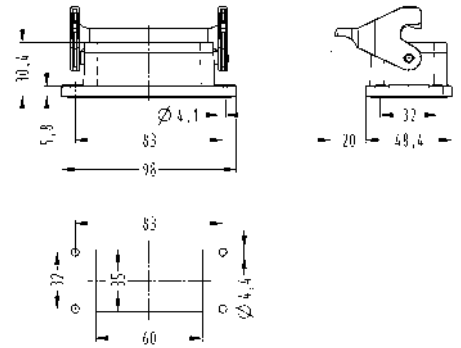

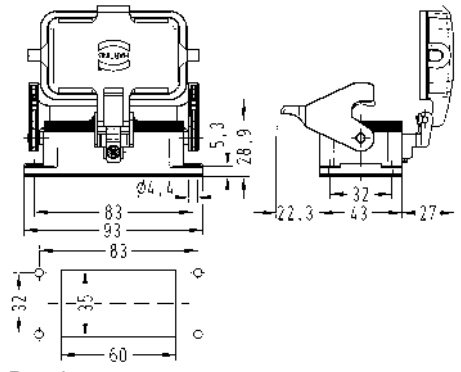
Housings


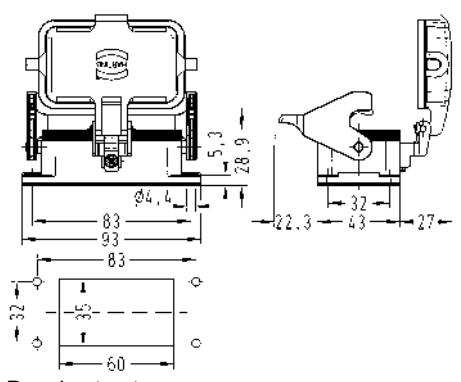

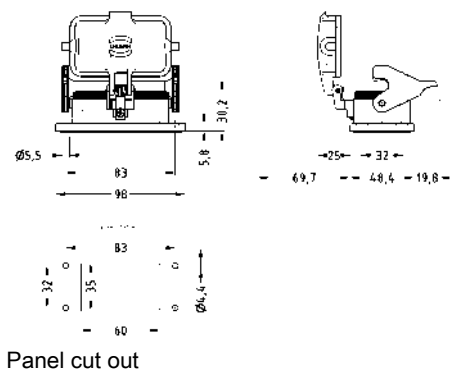

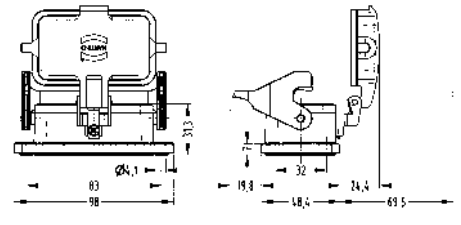
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Surface mounted housing, With thermo-plastic cover, Side entry, IP65 	1x M20 2x M20 2x M25	19 30 010 1225 19 30 010 1265	19 30 010 0266	
Han® B, Protection cover, for hoods, Metal, With fixing cord, IP65 		09 30 010 5457	09 30 010 5457	

Standard hoods/housings for industrial connectors  
Single locking lever

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Hood, Top entry, IP65, IP66, IP67  	1x M20 1x M25 1x M32 1x M40 2x M20	19 30 010 1440	19 30 010 0447 19 30 010 0448 19 30 010 0495	 
		19 30 010 1441		
Han® B, Hood, Side entry, IP65, IP66, IP67  	1x M20 1x M25 1x M32	19 30 010 1540	19 30 010 0547	 
		19 30 010 1541		
Han® B, Hood, Without cable entry, IP65, IP66, IP67  			09 30 010 0803	


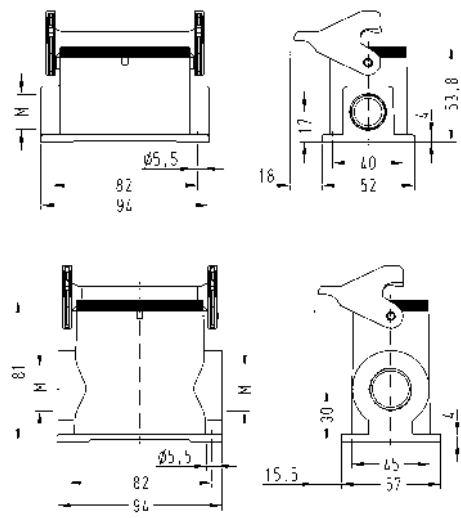

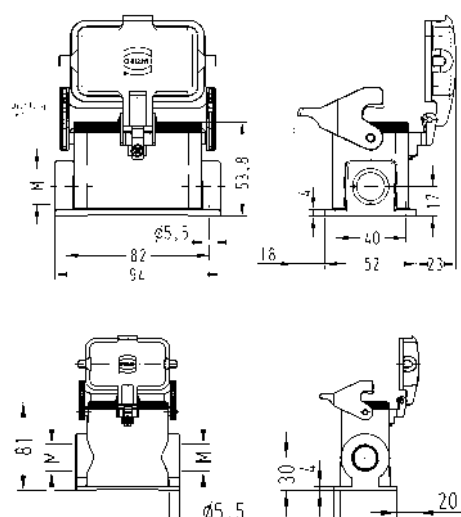

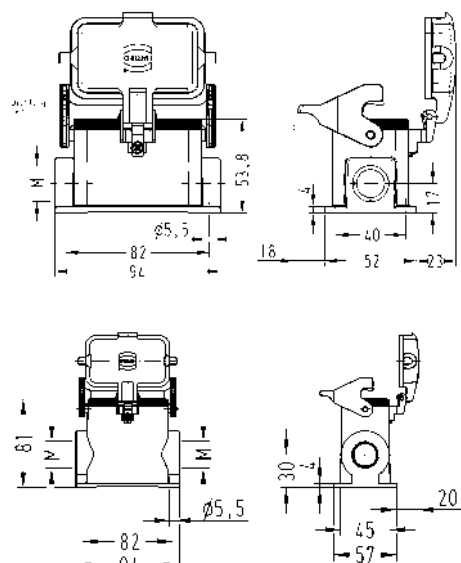
Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Bulkhead mounted housing, Han-Easy Lock®, IP65  		09 30 010 0305		 <p>Panel cut out</p>
Han® B, Bulkhead mounted housing, Han-Easy Lock®, IP65, IP67  		09 30 010 1305		 <p>Panel cut out</p>
Han® B, Bulkhead mounted housing, With thermo-plastic cover, Han-Easy Lock®, IP65  		09 30 010 0303		 <p>Panel cut out</p>


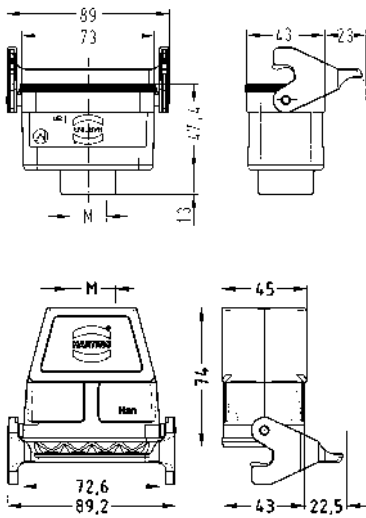

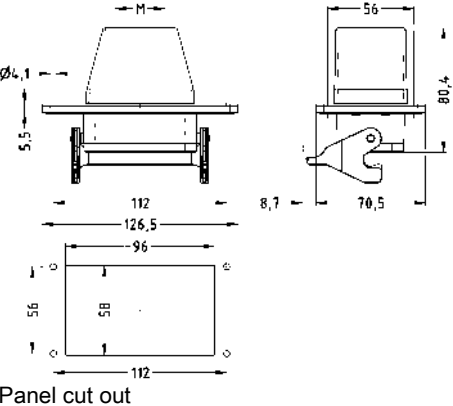

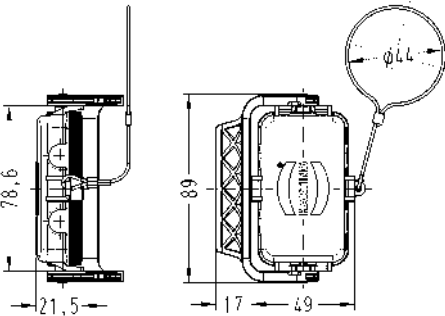
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Bulkhead mounted housing, With metal cover, Han-Easy Lock®, IP65  		09 30 010 0318		 <p>Panel cut out</p>
Han® B, Bulkhead mounted housing, With self-closing cover, Han-Easy Lock®, IP65, IP67   <p>IP44 for self-closing covers in unlocked position</p>		09 30 010 1306		 <p>Panel cut out</p>
Han® B, Bulkhead mounted housing, With thermo-plastic cover, Han-Easy Lock®, IP65, IP67  		09 30 010 1308		



Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Surface mounted housing, Side entry, Han-Easy Lock®, IP65 	1x M20 2x M20 2x M25 2x M32	19 30 010 1250 19 30 010 1290	19 30 010 0291 19 30 010 0292	
Han® B, Surface mounted housing, With thermo-plastic cover, Side entry, Han-Easy Lock®, IP65 	1x M20 2x M20 2x M25 2x M32	19 30 010 1255 19 30 010 1295	19 30 010 0296 19 30 010 0297	
Han® B, Surface mounted housing, With metal cover, Side entry, Han-Easy Lock®, IP65 	2x M20 2x M25 2x M32	19 30 010 2295	19 30 010 7296 19 30 010 7297	




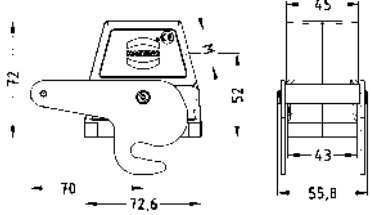

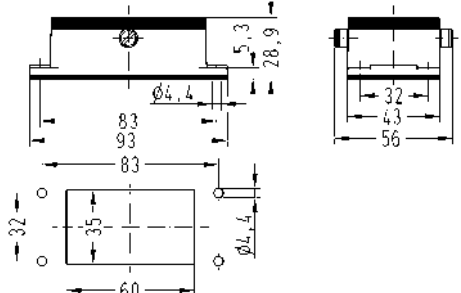

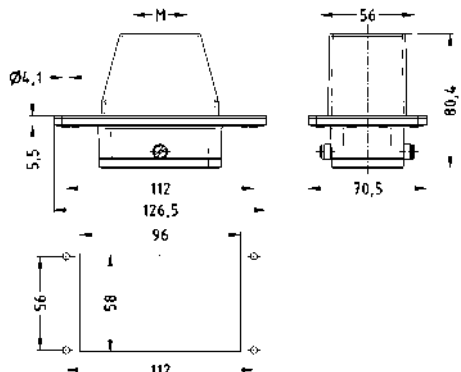
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Cable to cable housing, Top entry, Han-Easy Lock®, IP65 	1x M20 1x M25 1x M32	19 30 010 1750	19 30 010 0756 19 30 010 0757	
Han® B, Panel feed through housing, Top entry, Han-Easy Lock®, IP65 	1x M25 1x M32		19 30 010 1131 19 30 010 1132	 <p>Panel cut out</p>
Han® B, Protection cover, for hoods, Metal, With fixing cord, Han-Easy Lock®, IP65 		09 30 010 5432	09 30 010 5432	

Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, Thermoplastic, With fixing cord, IP65		09 30 010 5412	09 30 010 5412	




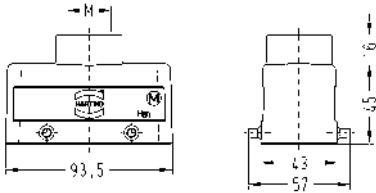

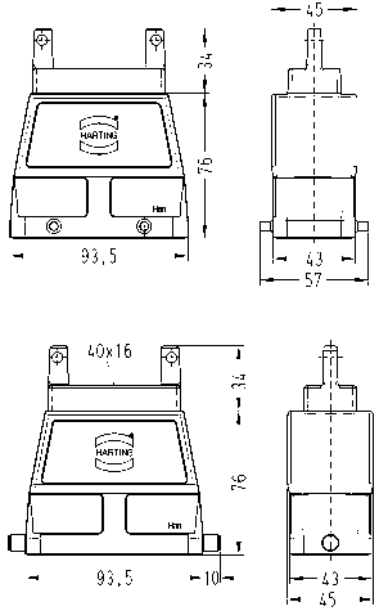
Standard hoods/housings for industrial connectors  
Central locking lever (on the hood)


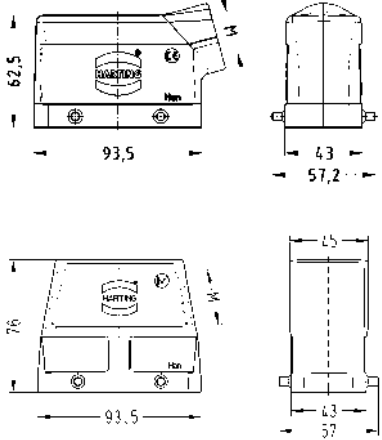

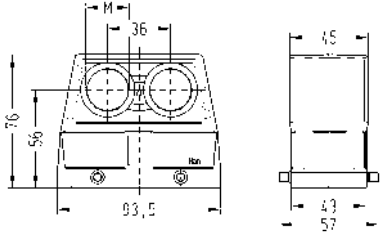

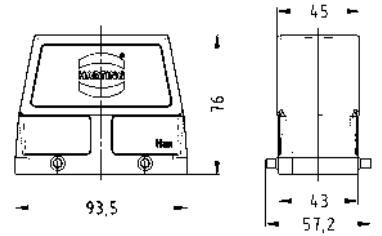

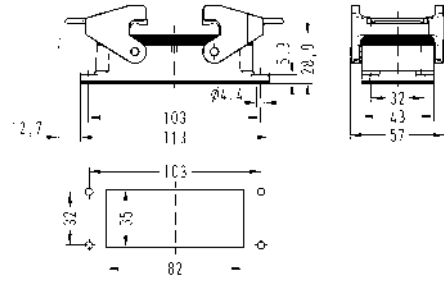
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Hood, Side entry, IP65  	1x M25		19 30 010 0586	
Han® B, Bulkhead mounted housing, IP65  		09 30 010 0381		 Panel cut out
Han® B, Panel feed through housing, Top entry, IP65  	1x M25 1x M32		19 30 010 1141 19 30 010 1142	 Panel cut out



Standard hoods/housings for industrial connectors  
Double locking lever


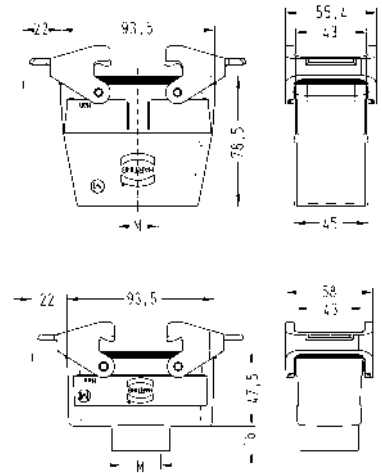

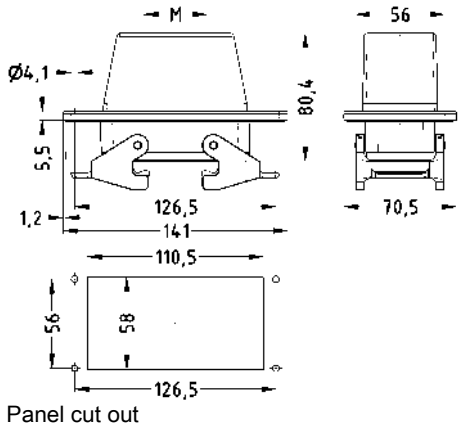

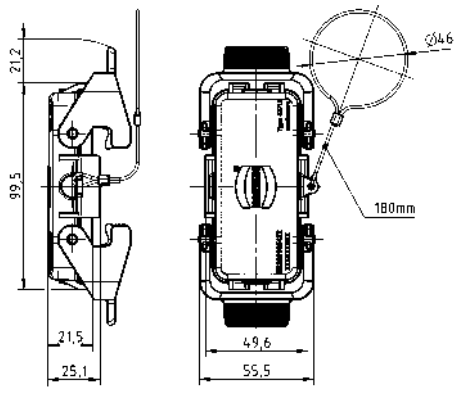
Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Hood, Top entry, IP65, IP66, IP67  	1x M25 1x M32 1x M40 2x M25	19 30 016 1421 19 30 016 1422	19 30 016 0427 19 30 016 0428 19 30 016 0466	
Han® B, Hood, Flat cable entry, Top entry, IP65  			09 30 016 4411 09 30 016 4441	

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Hood, Side entry, IP65, IP66, IP67  	1x M25 1x M32 1x M40	19 30 016 1521 19 30 016 1522	19 30 016 0527 19 30 016 0528	
Han® B, Hood, Angled entry, IP65, IP66, IP67  	2x M25		19 30 016 0666	
Han® B, Hood, Without cable entry, IP65, IP66, IP67  			09 30 016 0801	
Han® B, Bulkhead mounted housing, Han-Easy Lock®, IP65  		09 30 016 0301		 <p>Panel cut out</p>

Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Bulkhead mounted housing, Rear mounting, Han-Easy Lock®, IP66  Pack contents: Mounting frame is included with- in the delivery		09 30 016 0391		<p>Panel cut out</p>
Han® B, Bulkhead mounted housing, Rear mounting, Han-Easy Lock®, IP66		09 30 016 0392		<p>Panel cut out</p>
Han® B, Bulkhead mounted housing, Han-Easy Lock®, IP65, IP67		09 30 016 1301		<p>Panel cut out</p>
Han® B, Surface mounted housing, Side entry, Han-Easy Lock®, IP65	1x M25 1x M32 2x M25 2x M32 2x M40	19 30 016 1231 19 30 016 1271	19 30 016 0232 19 30 016 0271 19 30 016 0272 19 30 016 0273	<p>Panel cut out</p>

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Cable to cable housing, Top entry, Han-Easy Lock®, IP65 	1x M25 1x M32 1x M40	19 30 016 1731 19 30 016 1732	19 30 016 0736 19 30 016 0737 19 30 016 0738	
Han® B, Panel feed through housing, Top entry, Han-Easy Lock®, IP65 	1x M32 1x M40		19 30 016 1121 19 30 016 1122	 <p>Panel cut out</p>
Han® B, Protection cover, for hoods, Metal, With fixing cord, Han-Easy Lock®, IP65 		09 30 016 5422	09 30 016 5422	



Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Protection cover, for hoods, Metal, With fixing cord, IP65		09 30 016 5426 09 30 016 5457	09 30 016 5426 09 30 016 5457	
Han® B, Protection cover, for bulkhead mounted housings, for surface mounted housings, Thermoplastic, IP65		09 30 016 5405	09 30 016 5405	
Han® B, Protection cover, for bulkhead mounted housings, for surface mounted housings, Thermoplastic, With fixing cord, IP65		09 30 016 5417	09 30 016 5417	


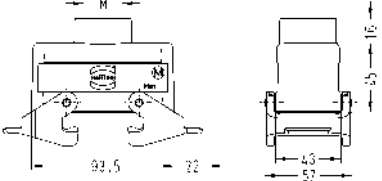

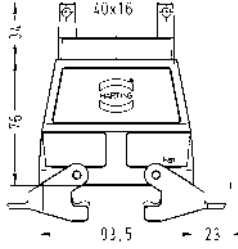

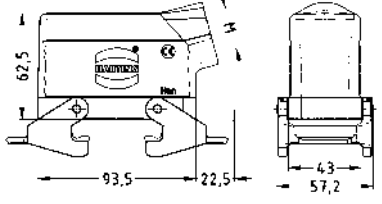



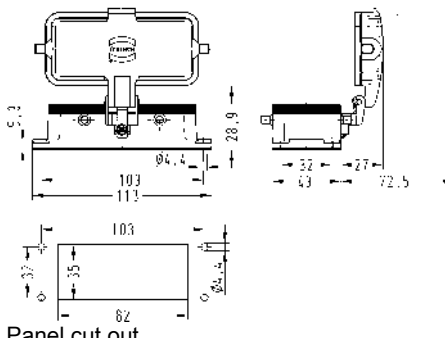

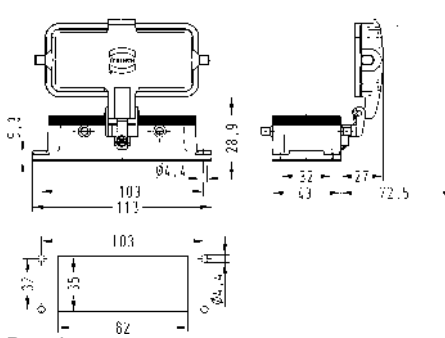

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construc- tion	High construc- tion	
Han® B, Protection cover, for bulkhead mounted housings, for surface mounted housings, Metal, With fixing cord, IP65		09 30 016 5425	09 30 016 5425	




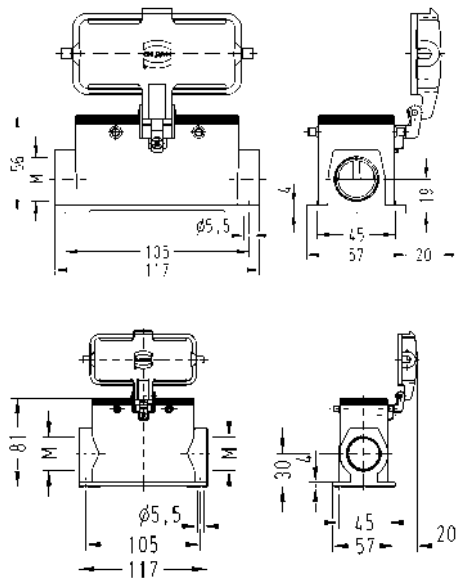
Standard hoods/housings for industrial connectors  
Double locking lever (on the hood)

Housings


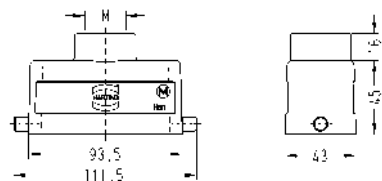
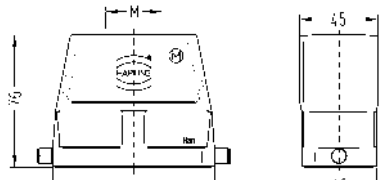

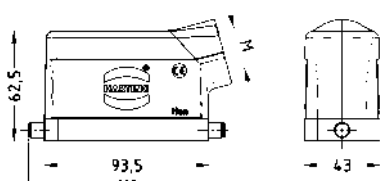
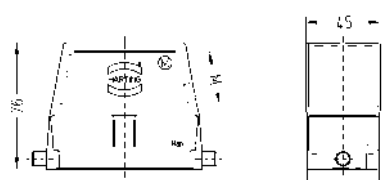

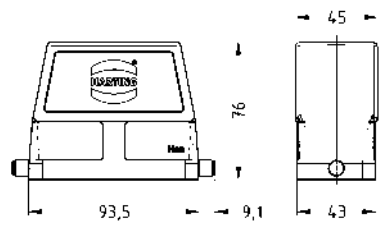
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Hood, Top entry, Han-Easy Lock®, IP65, IP66, IP67  	1x M25 1x M32 1x M40	19 30 016 1431 19 30 016 1432	19 30 016 0437	
			19 30 016 0438	
Han® B, Hood, Flat cable entry, Top entry, Han-Easy Lock®, IP65  			09 30 016 4431	
Han® B, Hood, Side entry, Han-Easy Lock®, IP65, IP66, IP67  	1x M25 1x M32 1x M40	19 30 016 1531	19 30 016 0537	
			19 30 016 0538	

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Bulkhead mounted housing, With thermo-plastic cover, IP65  		09 30 016 0302		 <p>Panel cut out</p>
Han® B, Bulkhead mounted housing, With metal cover, IP65  		09 30 016 0317		 <p>Panel cut out</p>
Han® B, Bulkhead mounted housing, With self-closing cover, IP65, IP67  		09 30 016 1314		
IP44 for self-closing covers in unlocked position				


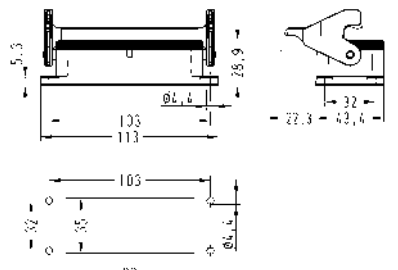

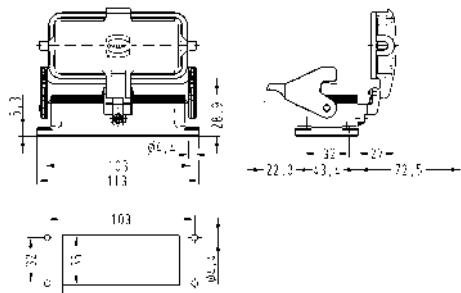

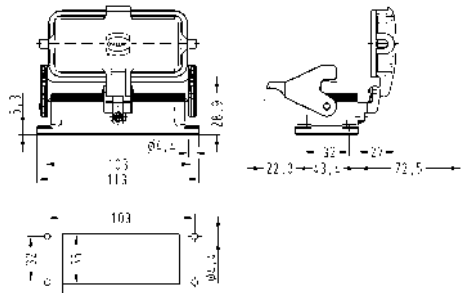

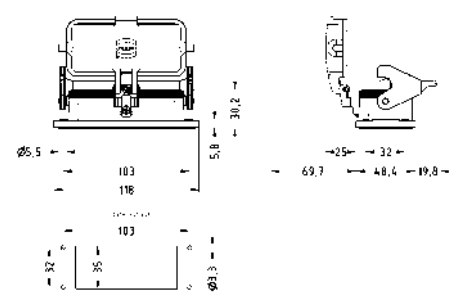
Housings



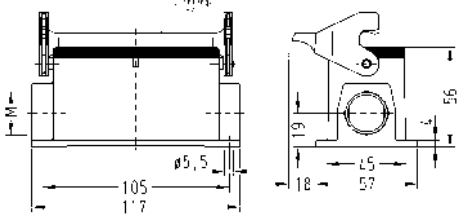
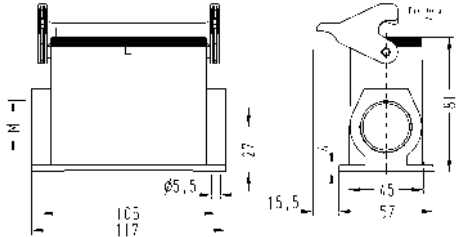

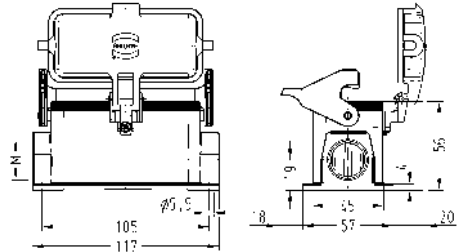
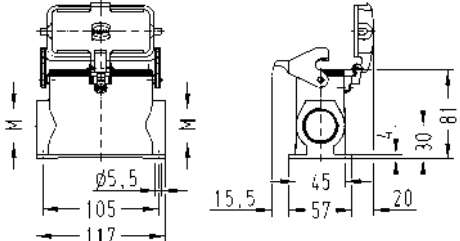
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Surface mounted housing, With thermo-plastic cover, Side entry, IP65 	1x M25 2x M25 2x M32	19 30 016 1226 19 30 016 1266	19 30 016 0267	

Standard hoods/housings for industrial connectors  
Single locking lever

Identification	Cable entry	Part number		Drawing (dimensions in mm)	
		Low construction	High construction		
Han® B, Hood, Top entry, IP65, IP66, IP67  	1x M25 1x M32 1x M40 2x M25	19 30 016 1441	19 30 016 0446		
		19 30 016 1442	19 30 016 0447 19 30 016 0448 19 30 016 0456		
Han® B, Hood, Side entry, IP65, IP66, IP67  	1x M25 1x M32 1x M40	19 30 016 1541	19 30 016 0547		
		19 30 016 1542	19 30 016 0548		
Han® B, Hood, Without cable entry, IP65, IP66, IP67  			09 30 016 0803		


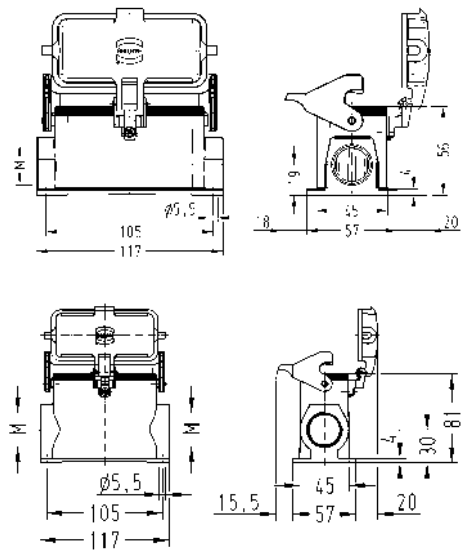

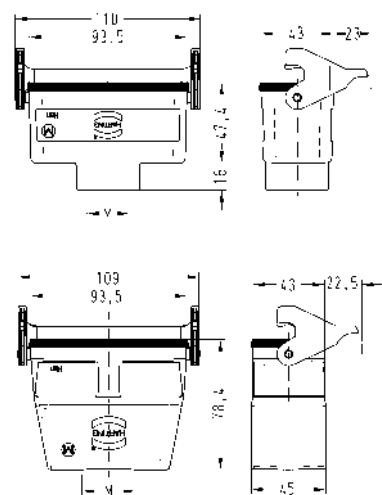

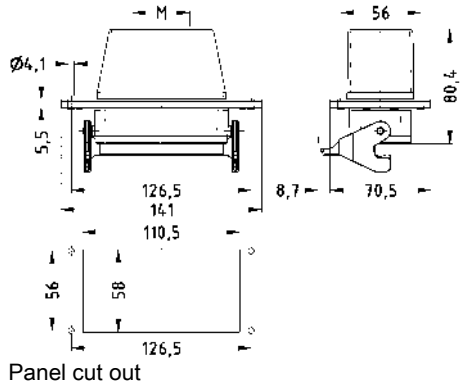
Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Bulkhead mounted housing, Han-Easy Lock®, IP65  		09 30 016 0307		 <p>Panel cut out</p>
Han® B, Bulkhead mounted housing, Han-Easy Lock®, IP65, IP67		09 30 016 1307		
Han® B, Bulkhead mounted housing, With thermo-plastic cover, Han-Easy Lock®, IP65  		09 30 016 0306		 <p>Panel cut out</p>
Han® B, Bulkhead mounted housing, With metal cover, Han-Easy Lock®, IP65  		09 30 016 0318		 <p>Panel cut out</p>
Han® B, Bulkhead mounted housing, With self-closing cover, Han-Easy Lock®, IP65  		09 30 016 1306		 <p>Panel cut out</p>
IP44 for self-closing covers in unlocked position				

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Bulkhead mounted housing, With thermo-plastic cover, Han-Easy Lock®, IP65, IP67 		09 30 016 1308		
Han® B, Surface mounted housing, Side entry, Han-Easy Lock®, IP65 	1x M25 1x M32 2x M25 2x M32	19 30 016 1251 19 30 016 1291	19 30 016 0252 19 30 016 0291 19 30 016 0292	 
Han® B, Surface mounted housing, With thermo-plastic cover, Side entry, Han-Easy Lock®, IP65 	1x M25 2x M25 2x M32	19 30 016 1256 19 30 016 1296	19 30 016 0297	 



Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Surface mounted housing, With metal cover, Side entry, Han-Easy Lock®, IP65 	2x M25 2x M32	19 30 016 2296	19 30 016 7297	
Han® B, Cable to cable housing, Top entry, Han-Easy Lock®, IP65 	1x M25 1x M32	19 30 016 1751 19 30 016 1752	19 30 016 0757	
Han® B, Panel feed through housing, Top entry, Han-Easy Lock®, IP65 	1x M32 1x M40		19 30 016 1131 19 30 016 1132	 <p>Panel cut out</p>






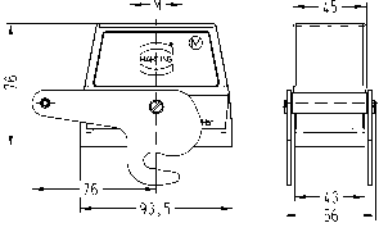

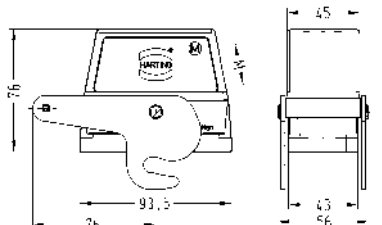

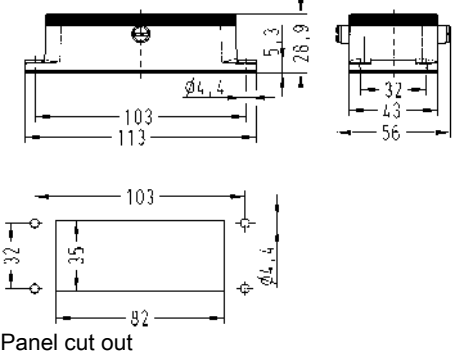

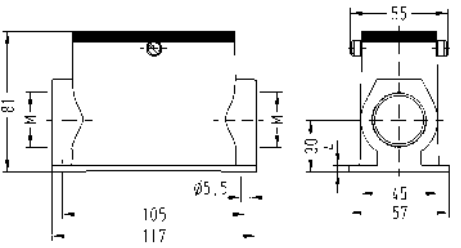
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construc- tion	High construc- tion	
Han® B, Protection cover, for hoods, Metal, Han-Easy Lock®, IP65		09 30 016 5432	09 30 016 5432	





Standard hoods/housings for industrial connectors  
Central locking lever (on the hood)

Housings


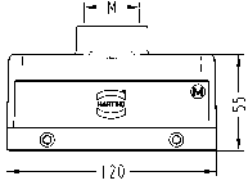
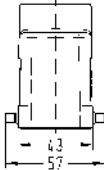

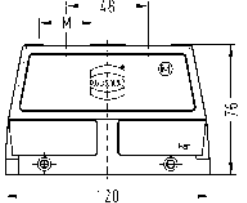
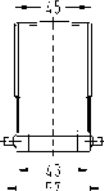

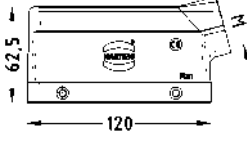
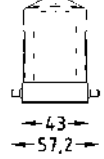
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Hood, Top entry, IP65  	1x M32		19 30 016 0487	
Han® B, Hood, Side entry, IP65  	1x M25 1x M32		19 30 016 0586 19 30 016 0587	
Han® B, Bulkhead mounted housing, IP65  		09 30 016 0381		 <p>Panel cut out</p>
Han® B, Surface mounted housing, Side entry, IP65  	2x M32		19 30 016 0282	


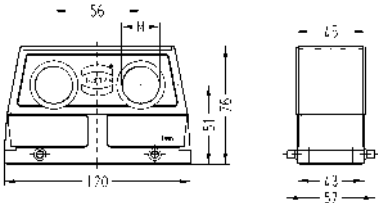

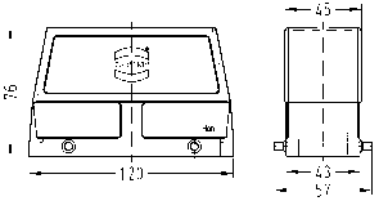

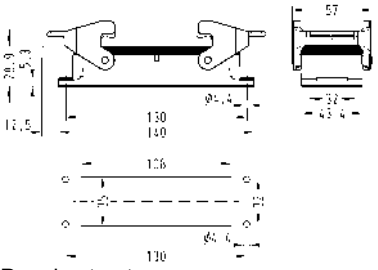

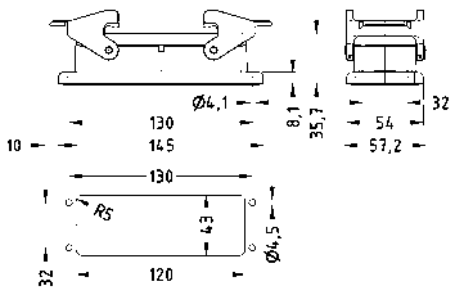
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Panel feed through housing, Top entry, IP65	1x M32 1x M40		19 30 016 1141 19 30 016 1142	<p>                         Front view: <math>\varnothing 4,1</math>, 5,5, 126,5, 141, 110,5, M                          Side view: 56, 80,4, 70,5                          Panel cut out: 56, 58, 126,5                     </p>




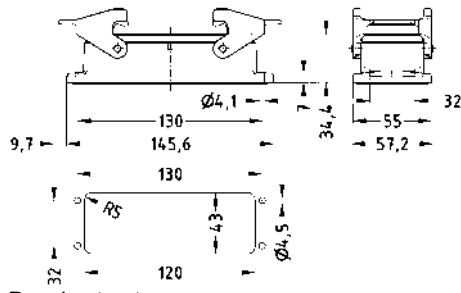

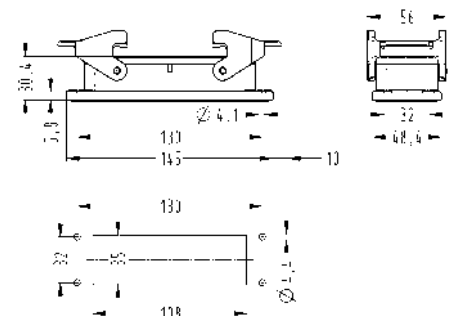

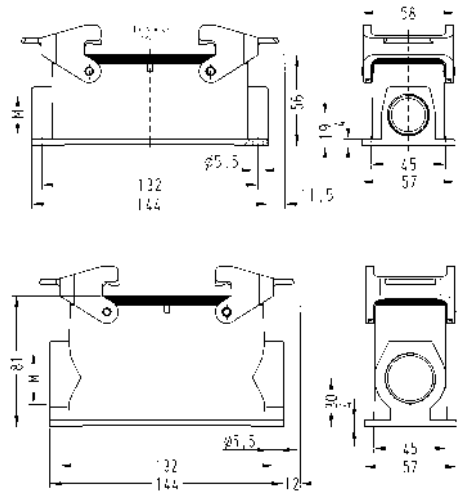
Standard hoods/housings for industrial connectors  
Double locking lever


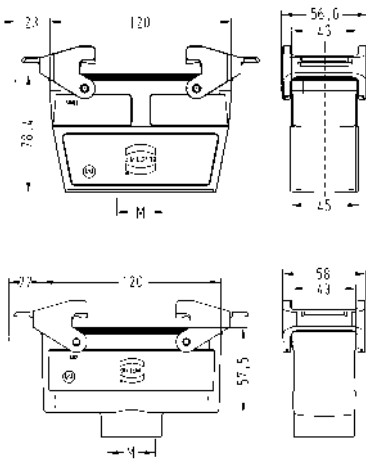

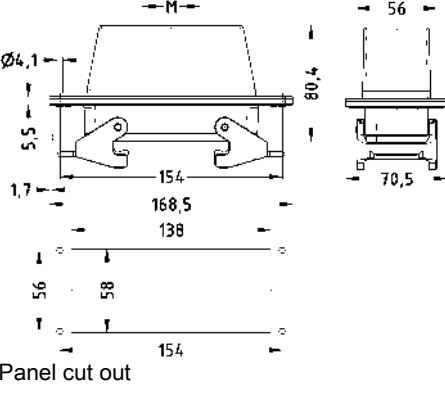

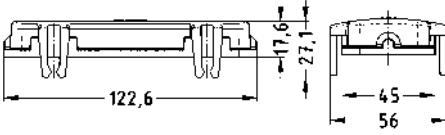

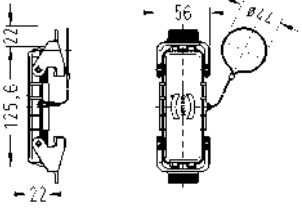
Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Hood, Top entry, IP65, IP66, IP67  	1x M32 1x M40 2x M25 2x M32	19 30 024 1422	19 30 024 0427 19 30 024 0428 19 30 024 0466 19 30 024 0467	 
Han® B, Hood, Flat cable entry, Top entry, IP65  			09 30 024 4411	 
Han® B, Hood, Side entry, IP65, IP66, IP67  	1x M25 1x M32 1x M40 1x M40	19 30 024 1521 19 30 024 1522	19 30 024 0527 19 30 024 0523 19 30 024 0528	 

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Hood, Angled entry, IP65, IP66, IP67  	2x M25		19 30 024 0666	
Han® B, Hood, Without cable entry, IP65, IP66, IP67  			09 30 024 0801	
Han® B, Bulkhead mounted housing, Han-Easy Lock®, IP65  		09 30 024 0301		 <p>Panel cut out</p>
Han® B, Bulkhead mounted housing, Rear mounting, Han-Easy Lock®, IP66  Pack contents: Mounting frame is included with in the delivery  		09 30 024 0391		 <p>Panel cut out</p>


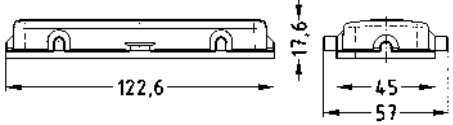

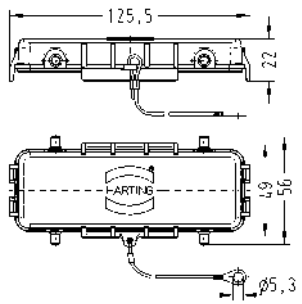

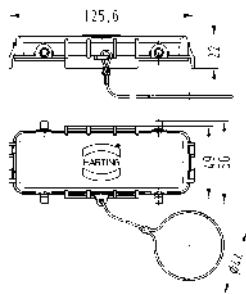
Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Bulkhead mounted housing, Rear mounting, Han-Easy Lock®, IP66  		09 30 024 0392		 <p>Panel cut out</p>
Han® B, Bulkhead mounted housing, Han-Easy Lock®, IP65, IP67  		09 30 024 1301		 <p>Panel cut out</p>
Han® B, Surface mounted housing, Side entry, Han-Easy Lock®, IP65  	1x M25 1x M32 2x M25 2x M32 2x M40	19 30 024 1231 19 30 024 1271	19 30 024 0232 19 30 024 0272 19 30 024 0273	

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Cable to cable housing, Top entry, Han-Easy Lock®, IP65 	1x M32 1x M40	19 30 024 1732	19 30 024 0737 19 30 024 0738	
Han® B, Panel feed through housing, Top entry, Han-Easy Lock®, IP65 	1x M32 1x M40		19 30 024 1121 19 30 024 1122	 <p>Panel cut out</p>
Han® B, Protection cover, for hoods, Thermoplastic, With board locks, IP65 		09 30 024 5401	09 30 024 5401	
Han® B, Protection cover, for hoods, Metal, With fixing cord, Han-Easy Lock®, IP65 		09 30 024 5422	09 30 024 5422	


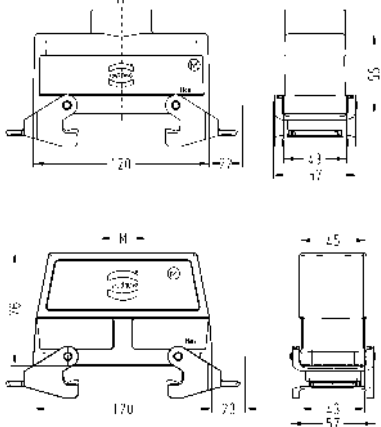

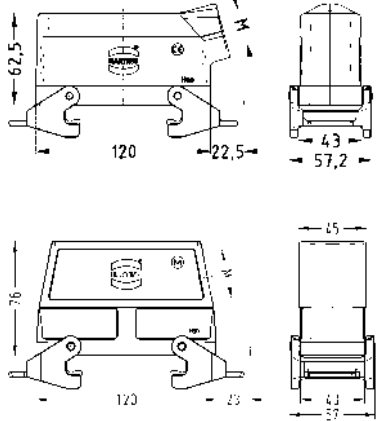

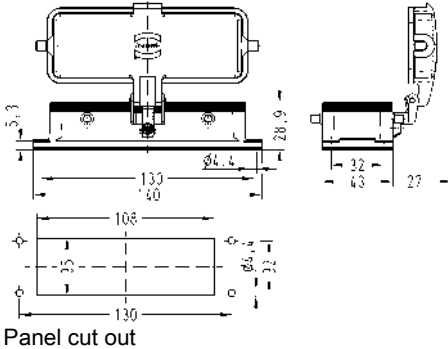


Housings


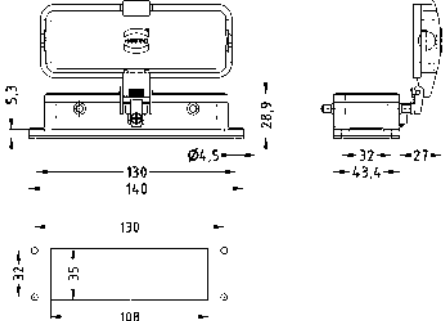


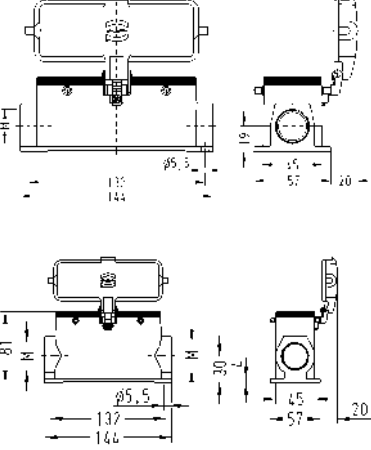

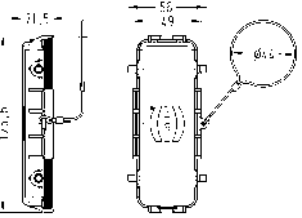
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
<p>Han® B, Protection cover, for bulkhead mounted housings, for surface mounted housings, Thermoplastic, IP65</p> 		09 30 024 5405	09 30 024 5405	
<p>Han® B, Protection cover, for bulkhead mounted housings, for surface mounted housings, Metal, With fixing cord, IP65</p> 		09 30 024 5425	09 30 024 5425	
<p>Han® B, Protection cover, for cable to cable housing, Metal, With fixing cord, IP65</p> 		09 30 024 5426	09 30 024 5426	



Standard hoods/housings for industrial connectors  
 Double locking lever (on the hood)


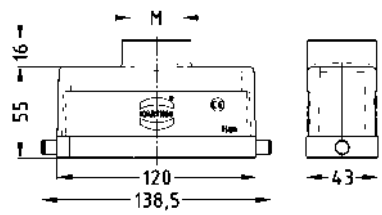
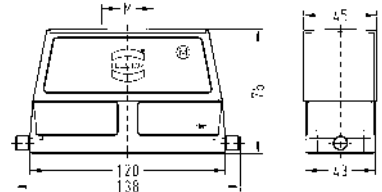
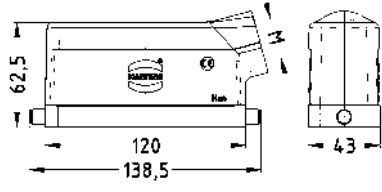
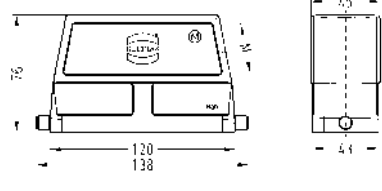
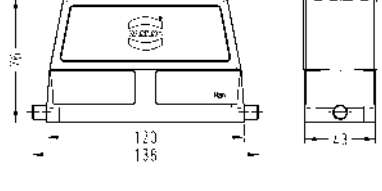

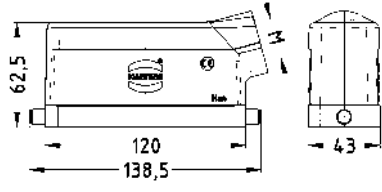
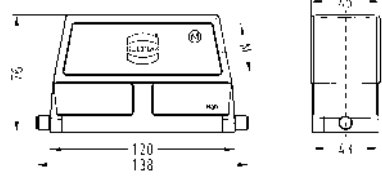

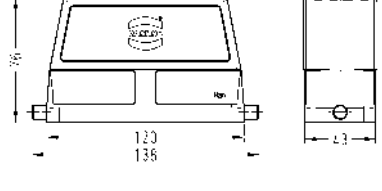
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Hood, Top entry, Han-Easy Lock®, IP65, IP66, IP67 	1x M32 1x M40	19 30 024 1432	19 30 024 0437 19 30 024 0438	
Han® B, Hood, Side entry, Han-Easy Lock®, IP65, IP66, IP67 	1x M25 1x M32 1x M40	19 30 024 1531	19 30 024 0537 19 30 024 0538	
Han® B, Bulkhead mounted housing, With thermo-plastic cover, IP65 		09 30 024 0302		 <p>Panel cut out</p>

Housings


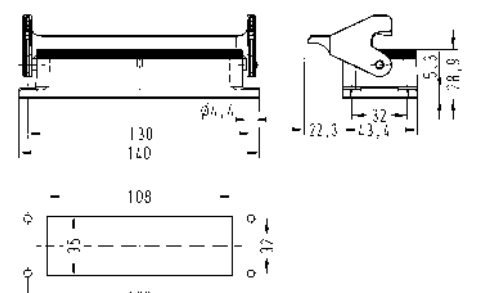

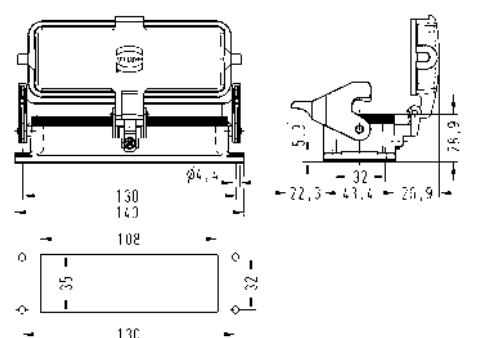

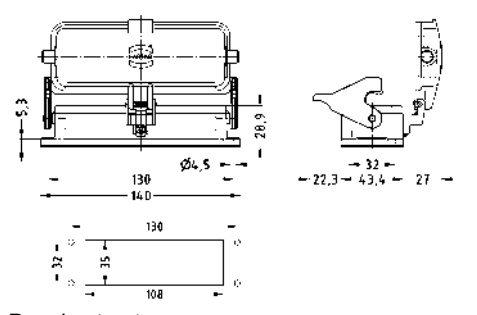

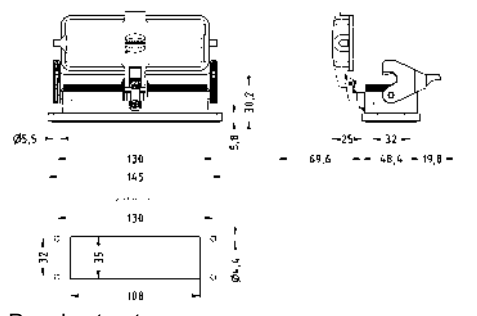
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Bulkhead mounted housing, With metal cover, IP65  		09 30 024 0317		 <p>Panel cut out</p>
Han® B, Bulkhead mounted housing, With self-closing cover, IP65, IP67   <p>IP44 for self-closing covers in unlocked position</p>		09 30 024 1314		
Han® B, Surface mounted housing, With thermo-plastic cover, Side entry, IP65  	1x M25 2x M25 2x M32	19 30 024 1226 19 30 024 1266	19 30 024 0267	
Han® B, Protection cover, for hoods, Metal, With fixing cord, IP65  		09 30 024 5442	09 30 024 5442	



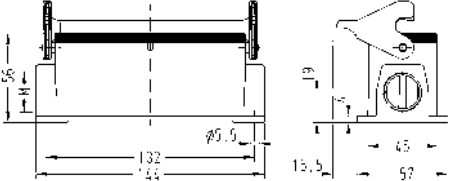
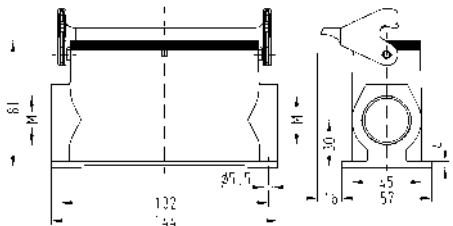

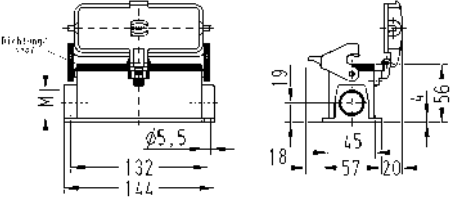
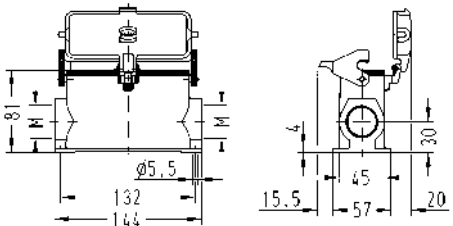

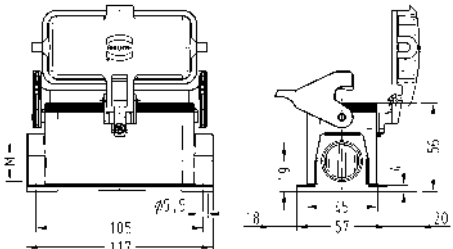
Standard hoods/housings for industrial connectors  
Single locking lever

Housings


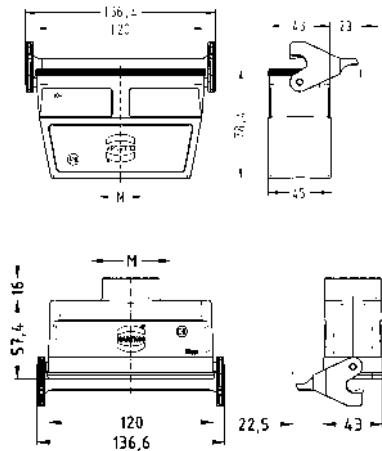

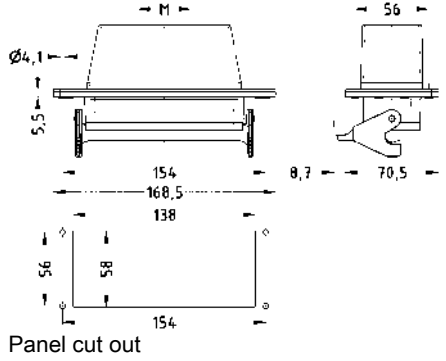

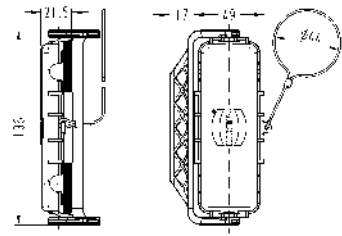

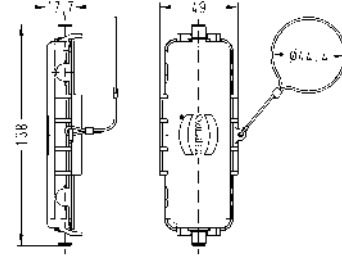
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construc- tion	High construc- tion	
Han® B, Hood, Top entry, IP65, IP66, IP67  	1x M32 1x M40 2x M25 2x M32	19 30 024 1442	19 30 024 0447 19 30 024 0448 19 30 024 0456 19 30 024 0457	    
Han® B, Hood, Side entry, IP65, IP66, IP67  	1x M25 1x M32 1x M40	19 30 024 1541 19 30 024 1542	19 30 024 0547 19 30 024 0548	 
Han® B, Hood, Without cable entry, IP65, IP66, IP67  			09 30 024 0803	

Housings


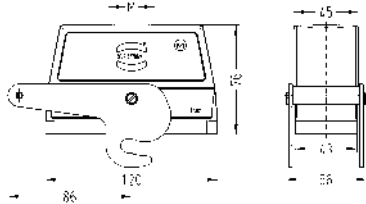

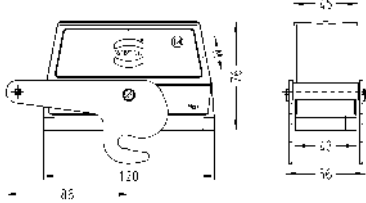

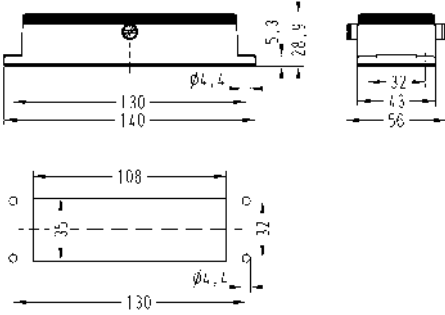

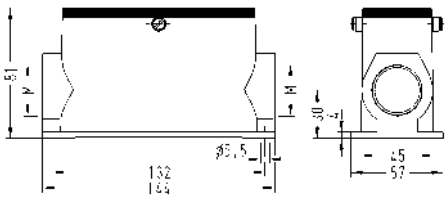
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Bulkhead mounted housing, Han-Easy Lock®, IP65  		09 30 024 0307		 Panel cut out
Han® B, Bulkhead mounted housing, Han-Easy Lock®, IP65, IP67		09 30 024 1307		
Han® B, Bulkhead mounted housing, With thermo-plastic cover, Han-Easy Lock®, IP65  		09 30 024 0304		 Panel cut out
Han® B, Bulkhead mounted housing, With metal cover, Han-Easy Lock®, IP65  		09 30 024 0318		 Panel cut out
Han® B, Bulkhead mounted housing, With self-closing cover, Han-Easy Lock®, IP65  		09 30 024 1306		 Panel cut out
IP44 for self-closing covers in unlocked position				

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Bulkhead mounted housing, With thermo-plastic cover, Han-Easy Lock®, IP65, IP67  		09 30 024 1308		
Han® B, Surface mounted housing, Side entry, Han-Easy Lock®, IP65  	1x M25 2x M25 2x M32	19 30 024 1251 19 30 024 1291	19 30 024 0292	 
Han® B, Surface mounted housing, With thermo-plastic cover, Side entry, Han-Easy Lock®, IP65  	1x M25 2x M25 2x M32	19 30 024 1256 19 30 024 1296	19 30 024 0297	 
Han® B, Surface mounted housing, With metal cover, Side entry, Han-Easy Lock®, IP65  	2x M25 2x M32	19 30 024 2296	19 30 024 7297	

Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Cable to cable housing, Top entry, Han-Easy Lock®, IP65 	1x M32	19 30 024 1752	19 30 024 0757	
Han® B, Panel feed through housing, Top entry, Han-Easy Lock®, IP65 	1x M32 1x M40		19 30 024 1131 19 30 024 1132	 <p>Panel cut out</p>
Han® B, Protection cover, for hoods, Metal, With fixing cord, Han-Easy Lock®, IP65 		09 30 024 5432	09 30 024 5432	
Han® B, Protection cover, for cable to cable housing, Metal, With fixing cord, IP65 		09 30 024 5436	09 30 024 5436	

Standard hoods/housings for industrial connectors  
Central locking lever (on the hood)


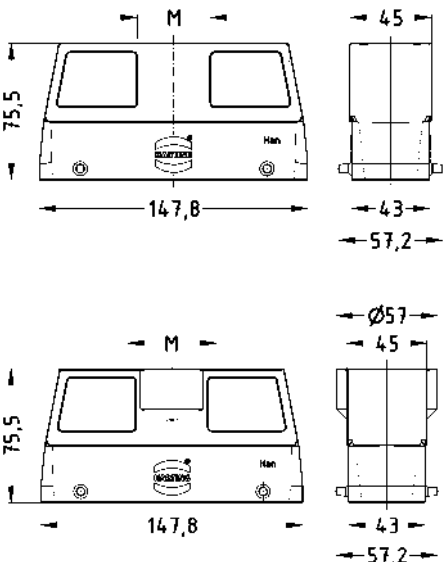

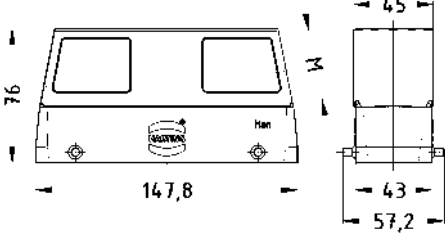

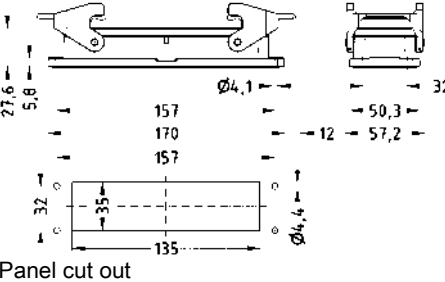
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Hood, Top entry, IP65  	1x M32		19 30 024 0487	
Han® B, Hood, Side entry, IP65  	1x M25 1x M32 1x M40		19 30 024 0586 19 30 024 0587 19 30 024 0588	
Han® B, Bulkhead mounted housing, IP65  		09 30 024 0381		 <p>Panel cut out</p>
Han® B, Surface mounted housing, Side entry, IP65  	2x M32		19 30 024 0282	

Housings


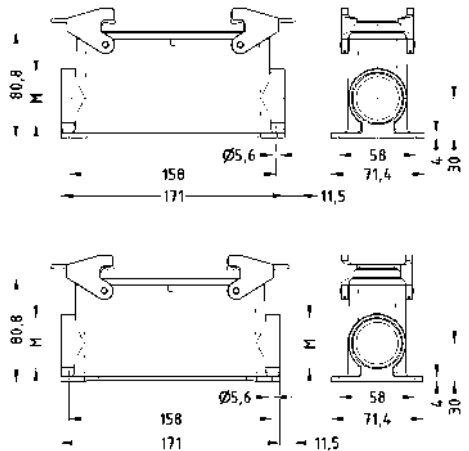

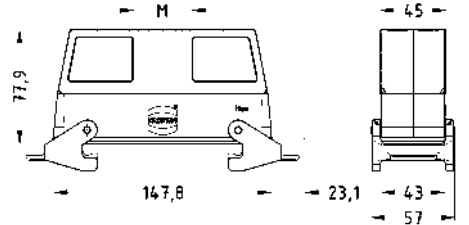
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Panel feed through housing, Top entry, IP65	1x M32 1x M40		19 30 024 1141 19 30 024 1142	<p>Panel cut out</p>




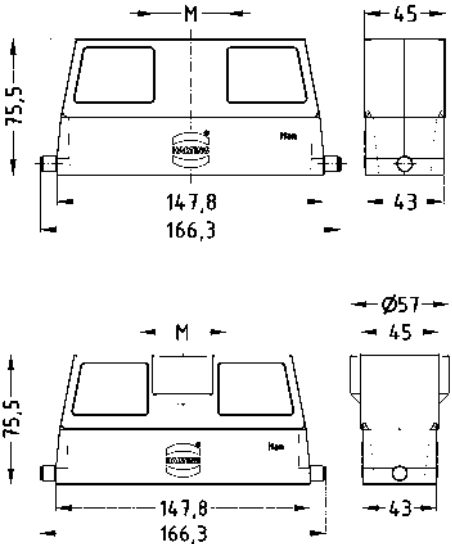
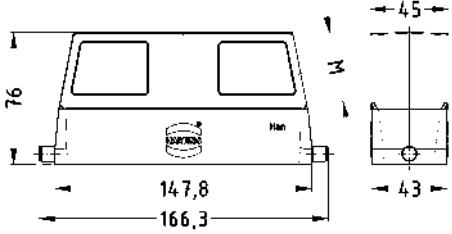

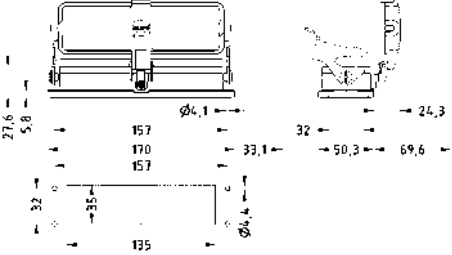
Standard hoods/housings for industrial connectors  
Double locking lever

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® B, Hood, Top entry, IP65</p> 	<p>1x M40 1x M50</p>	<p>19 30 132 0428 19 30 132 0429</p>	
<p>Han® B, Hood, Side entry, IP65</p> 	<p>1x M40</p>	<p>19 30 132 0528</p>	
<p>Han® B, Bulkhead mounted housing, Han-Easy Lock®, IP65</p> 		<p>09 30 132 0301</p>	 <p>Panel cut out</p>

Housings


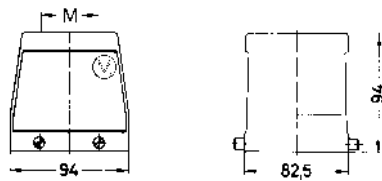

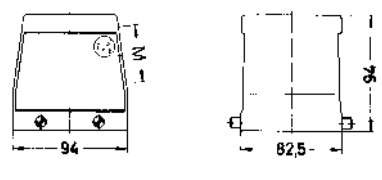

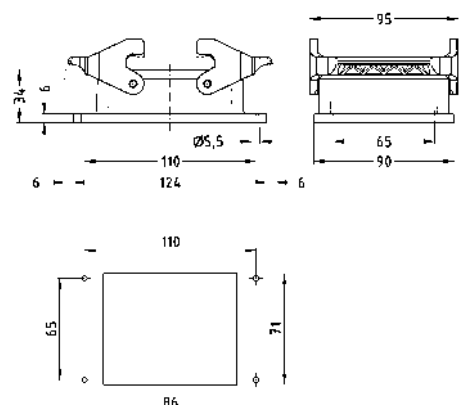

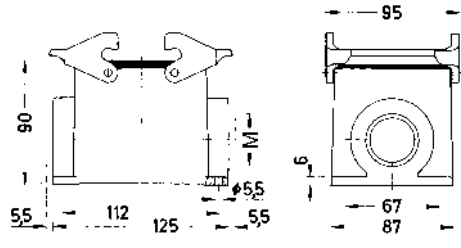
Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® B, Surface mounted housing, Side entry, Han-Easy Lock®, IP65</p> 	<p>1x M40 2x M40</p>	<p>19 30 132 0271 19 30 132 0272</p>	
<p>Han® B, Cable to cable housing, Top entry, Han-Easy Lock®, IP65</p> 	<p>1x M40</p>	<p>19 30 132 0728</p>	

Standard hoods/housings for industrial connectors  
Single locking lever


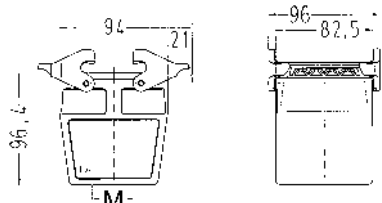

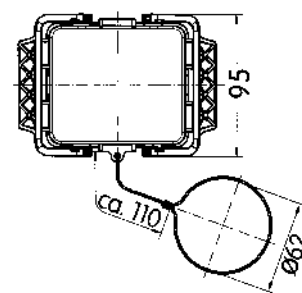

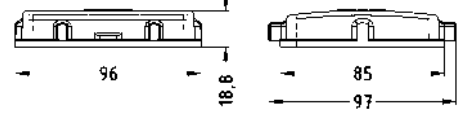

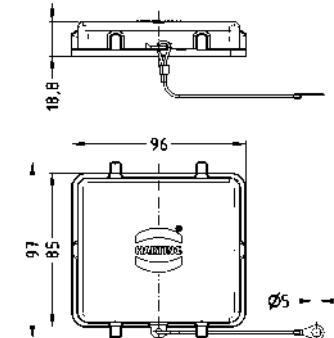

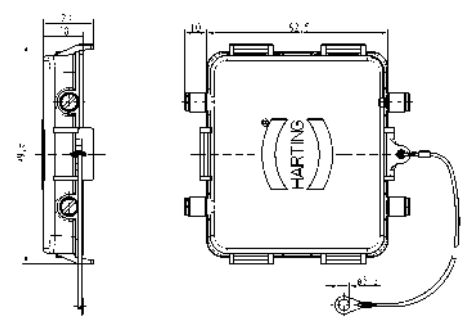
Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® B, Hood, Top entry, IP65</p> 	<p>1x M40 1x M50</p>	<p>19 30 132 0441 19 30 132 0449</p>	
<p>Han® B, Hood, Side entry, IP65</p>	<p>1x M40</p>	<p>19 30 132 0541</p>	
<p>Han® B, Bulkhead mounted housing, With thermo-plastic cover, IP65</p> 		<p>09 30 132 0304 ML</p>	 <p>Panel cut out</p>


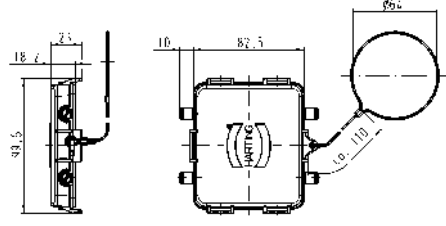
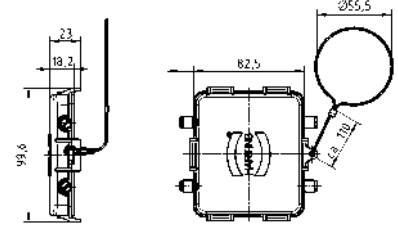


Standard hoods/housings for industrial connectors  
Double locking lever

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Hood, Top entry, IP65  	1x M32 1x M40 1x M50		19 30 032 0427 19 30 032 0428 19 30 032 0429	
Han® B, Hood, Side entry, IP65  	1x M32 1x M40 1x M50		19 30 032 0527 19 30 032 0528 19 30 032 0529	
Han® B, Bulkhead mounted housing, Han-Easy Lock®, IP65  		09 30 032 0301		 <p>Panel cut out</p>
Han® B, Surface mounted housing, Side entry, Han-Easy Lock®, IP65  	1x M32 2x M32 2x M40		19 30 032 0232 19 30 032 0272 19 30 032 0273	


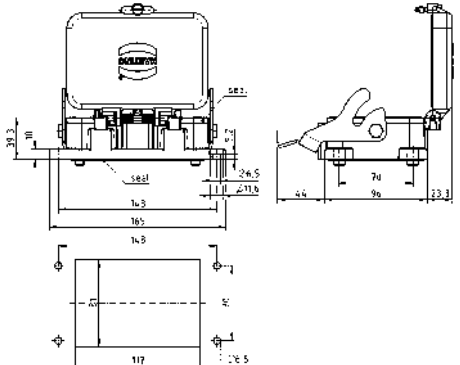

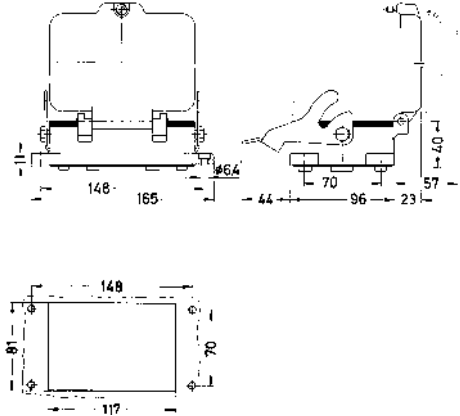

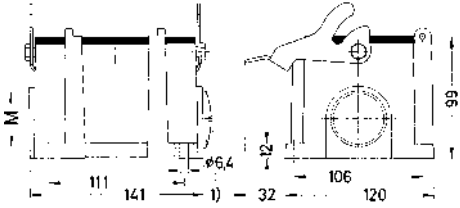

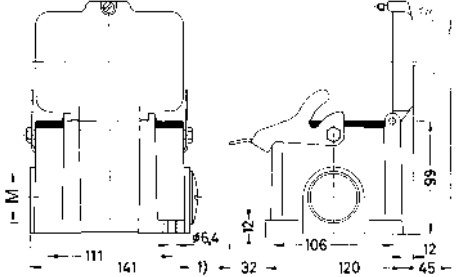
Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Cable to cable housing, Top entry, Han-Easy Lock®, IP65  	1x M40		19 30 032 0738	
Han® B, Protection cover, for hoods, Metal, With fixing cord, IP65  		09 30 032 5420	09 30 032 5420	
Han® B, Protection cover, for bulkhead mounted housings, for surface mounted housings, Thermoplastic, IP65  		09 30 032 5405	09 30 032 5405	
Han® B, Protection cover, for bulkhead mounted housings, for surface mounted housings, Thermoplastic, With fixing cord, IP65  		09 30 032 5406	09 30 032 5406	
Han® B, Protection cover, for bulkhead mounted housings, for surface mounted housings, Metal, With fixing cord, IP65  		09 30 032 5425	09 30 032 5425	

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
<p>Han® B, Protection cover, for cable to cable housing, Metal, With fixing cord, for Pg 42, IP65</p> 		09 30 032 5426	09 30 032 5426	
<p>Han® B, Protection cover, for cable to cable housing, Metal, With fixing cord, for Pg 36, IP65</p>		09 30 032 5427	09 30 032 5427	





Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® B, Bulkhead mounted housing, With thermo-plastic cover, O-Ring seal, IP65  		09 30 048 0301		 <p>Panel cut out</p>
Han® B, Bulkhead mounted housing, With metal cover, O-Ring seal, IP65  		09 30 048 0317		 <p>Panel cut out</p>
Han® B, Surface mounted housing, Side entry, IP65  	2x M32 2x M40		19 30 048 0292 19 30 048 0293	
Han® B, Surface mounted housing, With thermo-plastic cover, Side entry, IP65  	2x M40		19 30 048 0298	

## Features

- Hoods/housings for industrial applications

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP54
Type rating acc. to UL 50 / UL 50E	4, 4X, 12
Material (hood/housing)	Aluminium die-cast
Surface (hood/housing)	Powder-coated
Colour (hood/housing)	RAL 7037 (dust grey)
Material (seal)	NBR
Material (locking)	Polycarbonate (PC), Stainless steel
Colour (locking)	RAL 7037 (dust grey)
RoHS	compliant


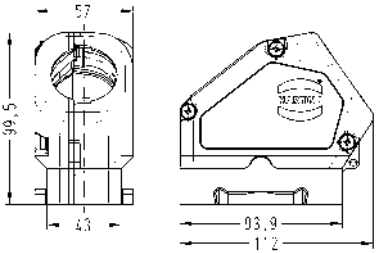

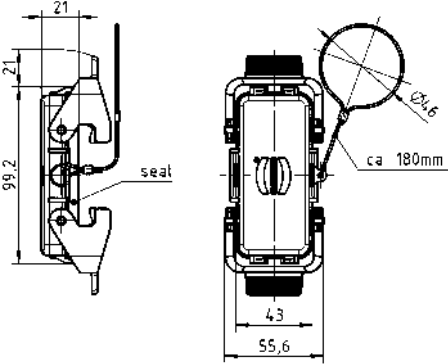
## Specifications and approvals

DNV GL

Housings


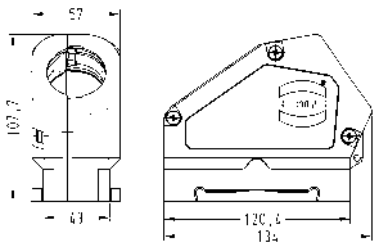

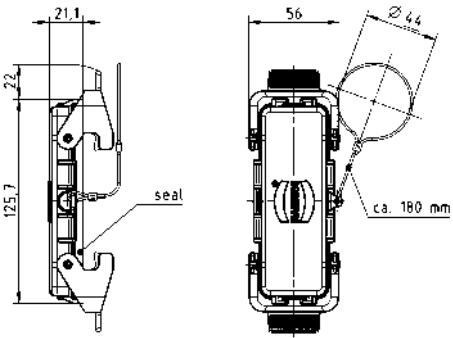
Double locking lever

Housings

Identification	Cable entry	Cable diameter (mm)	Part number	Drawing (dimensions in mm)
<p>Han® Easy Hood, Hood, Side entry, IP54</p> 	<p>1x Integrated</p>	<p>20 ... 34</p>	<p>11 30 016 0520</p>	
<p>Han® Easy Hood, Protection cover, for hoods, Metal, With fixing cord, Han-Easy Lock®, IP54</p> 			<p>11 30 016 5422</p>	

Double locking lever

Housings

Identification	Cable entry	Cable diameter (mm)	Part number	Drawing (dimensions in mm)
<p>Han® Easy Hood, Hood, Side entry, IP54</p> 	<p>1x Integrated</p>	<p>20 ... 34</p>	<p>11 30 024 0520</p>	
<p>Han® Easy Hood, Protection cover, for hoods, Metal, With fixing cord, IP54</p> 			<p>11 30 024 5422</p>	

## Technical characteristics

Material (cable glands) Thermoplastic  
Material (accessories) Thermoplastic

## Technical characteristics

Colour (accessories) Black  
RoHS compliant

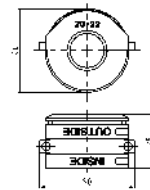
Identification	Size	Clamping range (mm)	Part number	Drawing (dimensions in mm)
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Cable seal,  
Han® Easy Hood



20 ... 22  
23 ... 25  
26 ... 28  
29 ... 31  
32 ... 34

11 30 000 9955  
11 30 000 9956  
11 30 000 9957  
11 30 000 9958  
11 30 000 9959

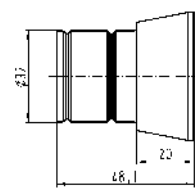
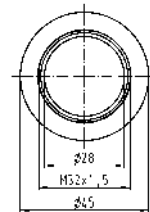
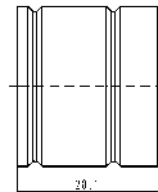
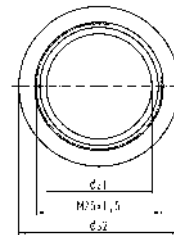


Han® Easy Hood,  
Thread adapter



M25  
M32

11 30 000 9961  
11 30 000 9962



## Features

- Angled housing replaces the terminal box
- Compact design saves space
- The position of the terminal housing can be switched by 90°
- Compatible with standard hoods for single lever size 10 B
- Locking levers: Han-Easy Lock®
- Star and delta circuits can be realised in the female connector Han® ESS
- Suitable for standard inserts

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP65
Type rating acc. to UL 50 / UL 50E	4, 4X, 12
Material (hood/housing)	Aluminium die-cast
Surface (hood/housing)	Uncoated, Powder-coated
Colour (hood/housing)	RAL 7037 (dust grey)
Material (seal)	NBR
Material (locking)	Polycarbonate (PC), Stainless steel
Colour (locking)	RAL 7037 (dust grey)
Material flammability class acc. to UL 94 (locking levers)	V-0
RoHS	compliant


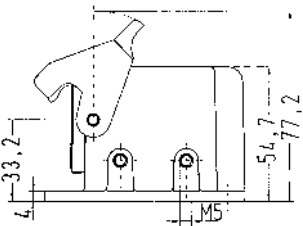

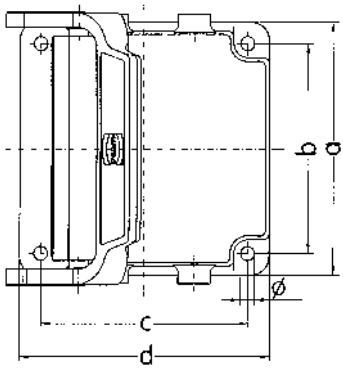

## Specifications and approvals

DNV GL



Single locking lever

Housings

Identification	Part number	Drawing (dimensions in mm)
<p>Han-Drive®, Housing for motor application, Han-Easy Lock®, IP65</p> 	<p>09 30 410 0901 09 30 410 0909 09 30 410 0921</p>	
<p>Han-Drive®, Housing for motor application, With thermo-plastic cover, Han-Easy Lock®, IP65</p> 	<p>09 30 410 0951 09 30 410 0960 09 30 410 0970 09 30 410 0971 09 30 410 0974 09 30 410 0983</p>	
<p>Han-Drive®, Housing for motor application, Powder-coated, Han-Easy Lock®, IP65</p> 	<p>09 30 010 0901 09 30 010 0902</p>	



Housings

Identification

Part number

Drawing  
(dimensions in mm)

Han-Drive®,  
Housing for motor application,  
Powder-coated,  
With thermo-plastic cover,  
Han-Easy Lock®,  
IP65



09 30 010 0961

	a	b	c	d	∅
09 30 010 0901	82	68	68	82	4,5
09 30 010 0902	98			98	
09 30 010 0961	82	70	70	82	
09 30 410 0901	82	68	68	82	4,5
09 30 410 0909	98			98	
09 30 410 0921	85	73	73	85	
09 30 410 0951	82	68	68	82	4,5
09 30 410 0960	98	70	70	98	4,3
09 30 410 0970	92	77	77	92	4,3
09 30 410 0971	85	73	73	85	5,5
09 30 410 0974	92	70	70	92	4,3
09 30 410 0983	92	80	80	92	5,1
09 62 810 0901	82	68	68	82	4,5
09 62 810 0974	92	70	70	92	4,1



Single locking lever

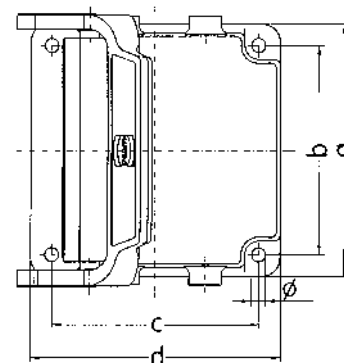
Housings

Identification	Part number	Drawing (dimensions in mm)
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Han-Drive®,  
Housing for motor application,  
EMC version,  
Han-Easy Lock®,  
IP65



09 62 810 0901



Han-Drive®,  
Housing for motor application,  
EMC version,  
With thermo-plastic cover,  
Han-Easy Lock®,  
IP65



09 62 810 0974

	a	b	c	d	Ø
09 30 010 0901	82	68	68	82	4,5
09 30 010 0902	98			98	
09 30 010 0961	82	70	70	82	
09 30 410 0901	82	68	68	82	4,5
09 30 410 0909	98			98	
09 30 410 0921	85	73	73	85	
09 30 410 0951	82	68	68	82	4,5
09 30 410 0960	98	70	70	98	4,3
09 30 410 0970	92	77	77	92	4,3
09 30 410 0971	85	73	73	85	5,5
09 30 410 0974	92	70	70	92	4,3
09 30 410 0983	92	80	80	92	5,1
09 62 810 0901	82	68	68	82	4,5
09 62 810 0974	92	70	70	92	4,1

## Features

- Hoods/housings for rough environments
- Metal hoods and housings with excellent corrosion resistance
- Corrosion resistance ASTM B117-09 (500 h)
- Locking lever made of high-quality stainless steel

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP65, IP67
Material (hood/housing)	Zinc die-cast
Surface (hood/housing)	Powder-coated
Colour (hood/housing)	RAL 9005 (jet black)
Material (seal)	FPM, NBR
Colour (seal)	Black
Material (locking)	Stainless steel, Steel
Surface (locking)	Zinc plated
RoHS	compliant, compliant with exemption


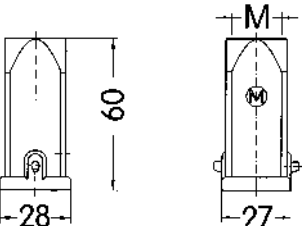

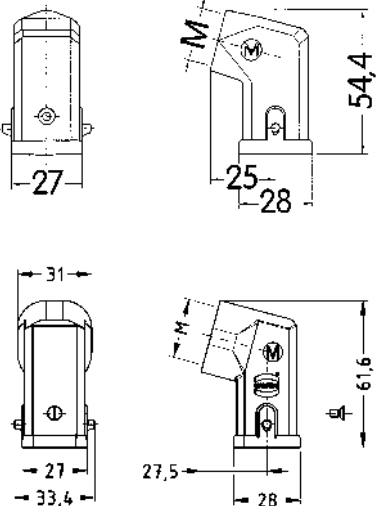

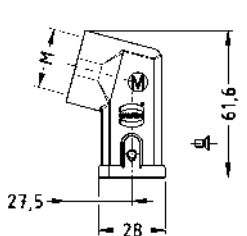
## Specifications and approvals

DNV GL


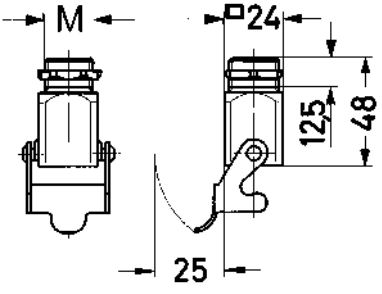

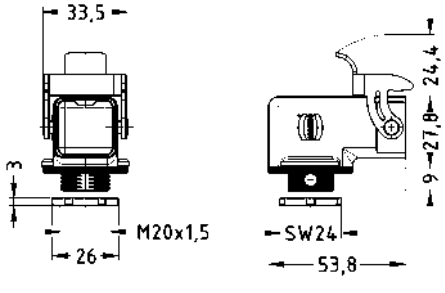
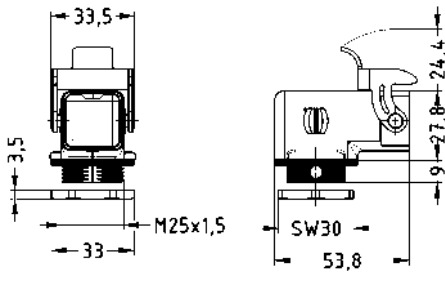

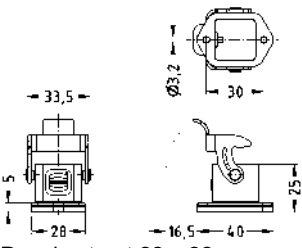



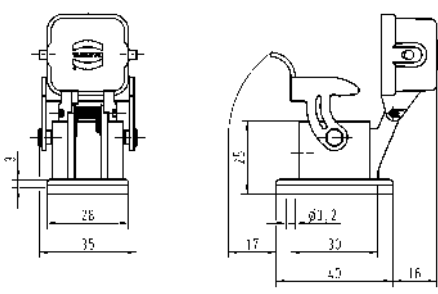

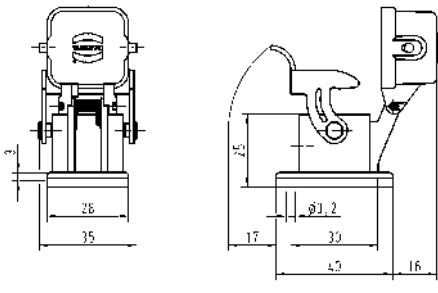

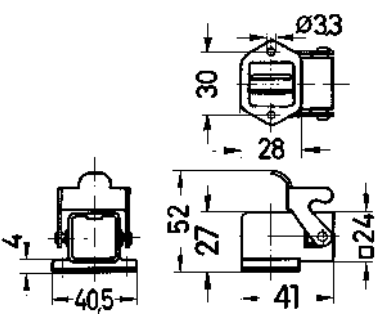

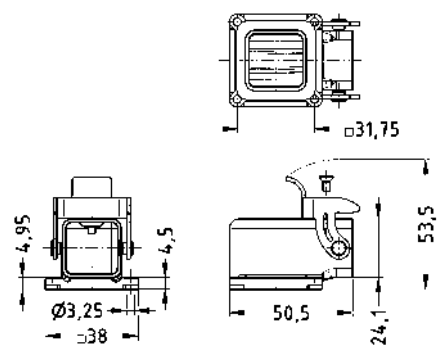
Housings

Hoods/housings for rough environments  
Single locking lever


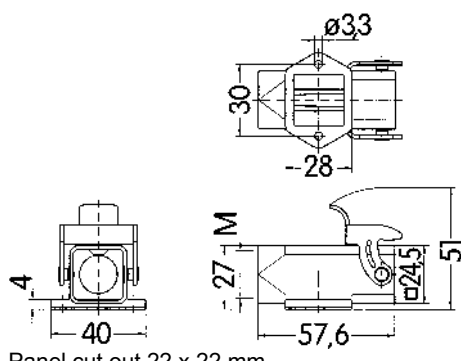


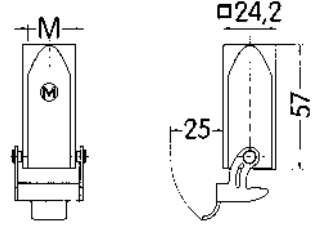

Identification	Cable entry	Part number	Drawing (dimensions in mm)	
<p>Han® M, Hood, Top entry, IP65, IP67</p> <p>Pack contents: With seal screw</p> 	<p>1x M20 1x M25</p>	<p>19 37 003 1440 19 37 003 1445</p>		
<p>Han® M, Hood, Side entry, IP65, IP67</p> <p>Pack contents: With seal screw</p> 	<p>1x M20 1x M25</p>	<p>19 37 003 1640 19 37 003 1645</p>		
<p>Han® M, Hood, for Han-Brid®, With glued seal, Side entry, IP65, IP67</p> <p>Pack contents: With seal screw</p> 	<p>1x M25</p>	<p>19 37 003 1647</p>		


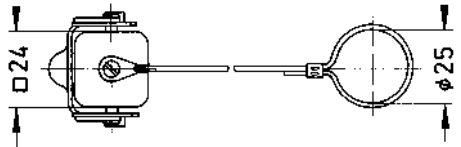

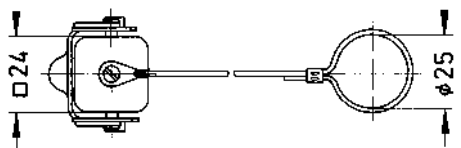

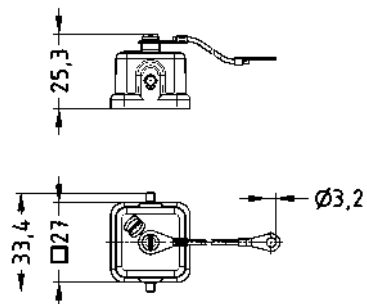

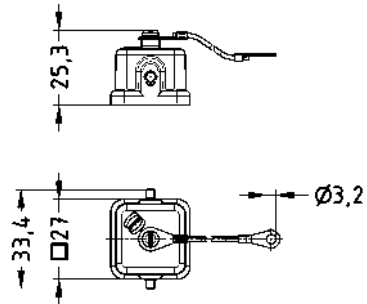
Housings

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® M, Screw mounted housing, IP65, IP67</p> <p>Pack contents: With seal screw</p> 	<p>1x M20</p>	<p>19 37 003 1150</p>	
<p>Han® M, Screw mounted housing, Angled, IP65, IP67</p> <p>Pack contents: With seal screw</p> 	<p>1x M20 1x M25</p>	<p>19 37 003 1160 19 37 003 1165</p>	 
<p>Han® M, Bulkhead mounted housing, Straight, IP65, IP67</p> <p>Pack contents: With seal screw</p> 		<p>09 37 003 0301</p>	 <p>Panel cut out 22 x 22 mm</p>

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® M, Bulkhead mounted housing, Straight, With metal cover, With seal, IP65, IP67</p> <p>Pack contents: With seal screw</p>  <p>for male inserts</p>		09 37 003 0305	
<p>Han® M, Bulkhead mounted housing, Straight, With metal cover, With seal, IP65, IP67</p> <p>Pack contents: With seal screw</p>  <p>for female inserts</p>		09 37 003 0306	
<p>Han® M, Bulkhead mounted housing, Angled, IP65, IP67</p> <p>Pack contents: With seal screw</p> 		09 37 003 0801	 <p>Panel cut out 22 x 22 mm</p>
<p>Han® M, Bulkhead mounted housing, Angled, Square mounting flange, IP65, IP67</p> <p>Pack contents: With seal screw</p> 		09 37 003 0811	

Housings

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® M, Surface mounted housing, With seal, Top entry, IP65, IP67</p> <p>Pack contents: With seal screw</p> 	<p>1x M20</p>	<p>19 37 003 1250</p>	 <p>Panel cut out 22 x 22 mm</p>
<p>Han® M, Surface mounted housing, Top entry, IP65, IP67</p> <p>Pack contents: With seal screw</p> 	<p>1x M20</p>	<p>19 37 003 1252</p>	
<p>Han® M, Cable to cable housing, Top entry, IP65, IP67</p> <p>Pack contents: With seal screw</p> 	<p>1x M20 1x M25</p>	<p>19 37 003 1750 19 37 003 1755</p>	
<p>Han® M, Panel feed through housing, With seal, Top entry, IP65, IP67</p> <p>Pack contents: With seal screw</p> 	<p>1x M20</p>	<p>19 37 003 1120</p>	

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® M, Protection cover, for hoods, Metal, With fixing cord, IP65, IP67</p>  <p>for mounted female insert</p>		09 37 003 5401	
<p>Han® M, Protection cover, for hoods, Metal, With fixing cord, IP65, IP67</p>  <p>for mounted male insert</p>		09 37 003 5402	
<p>Han® M, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, Metal, With fixing cord, IP65, IP67</p>  <p>for mounted female insert</p>		09 37 003 5405	
<p>Han® M, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, Metal, With fixing cord, IP65, IP67</p>  <p>for mounted male insert</p>		09 37 003 5406	

## Features

- Hoods/housings for rough environments
- Metal hoods and housings with excellent corrosion resistance
- Corrosion resistance ASTM B117-09 (500 h)
- Locking lever made of high-quality stainless steel

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP65, IP66, IP67
Type rating acc. to UL 50 / UL 50E	4, 4X, 12
Material (hood/housing)	Aluminium die-cast
Surface (hood/housing)	Powder-coated
Colour (hood/housing)	RAL 9005 (jet black)
Material (seal)	FPM
Material (locking)	Stainless steel, Polycarbonate (PC)
Colour (locking)	RAL 7037 (dust grey)
Material (accessories)	Polyamide (PA), Stainless steel
Material flammability class acc. to UL 94 (locking levers)	V-0
RoHS	compliant


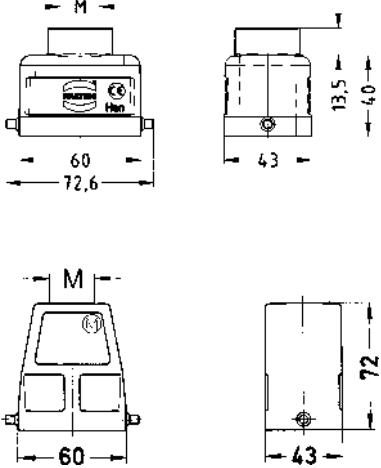

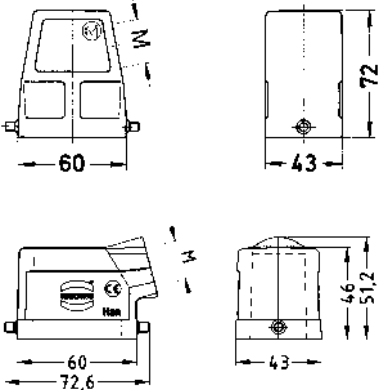

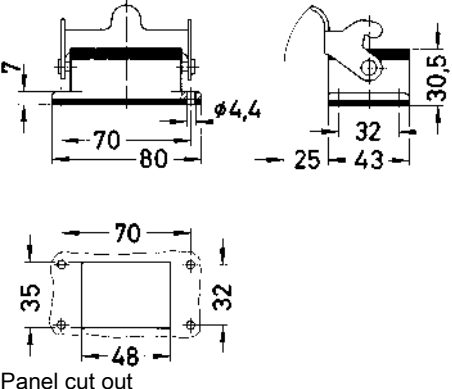
## Specifications and approvals

UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL




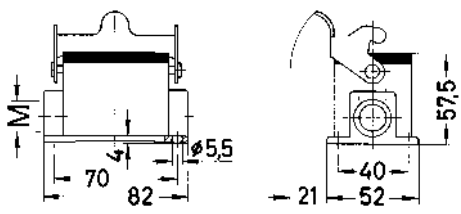

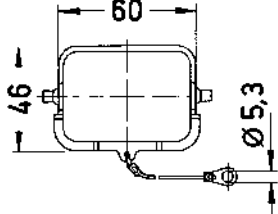

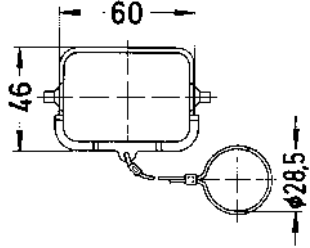


Hoods/housings for rough environments  
Single locking lever

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® M, Hood, Top entry, IP65, IP66, IP67  	1x M20 1x M25 1x M32	19 37 006 1440	19 37 006 0445 19 37 006 0446 19 37 006 0447	
Han® M, Hood, Side entry, IP65, IP66, IP67  	1x M20 1x M25 1x M32	19 37 006 1540	19 37 006 0545 19 37 006 0546 19 37 006 0547	
Han® M, Bulkhead mounted housing, IP65  		09 37 006 0301		


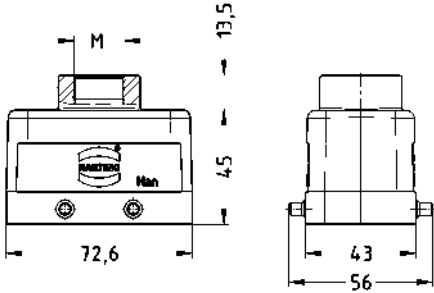

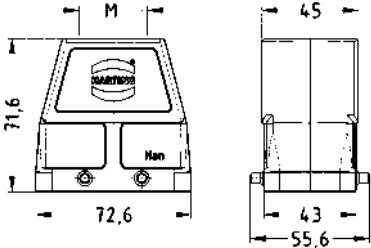
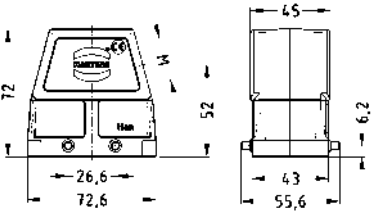
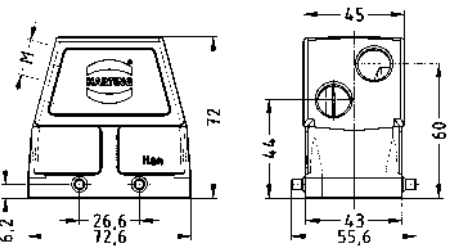
Housings


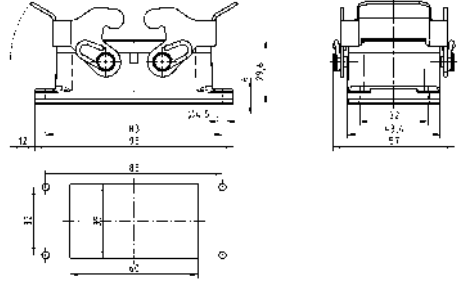

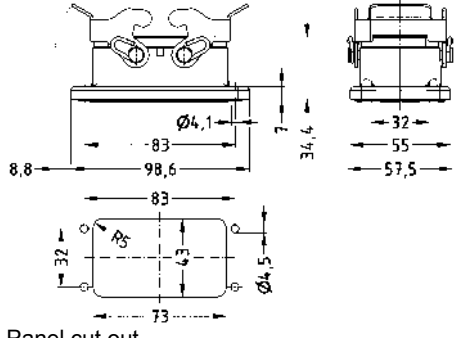

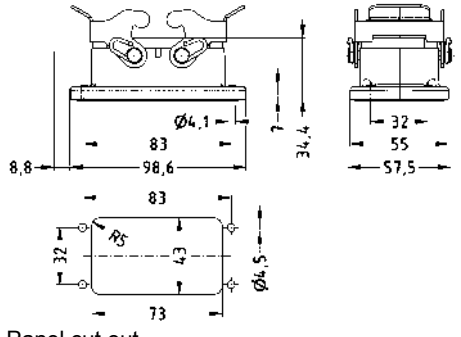
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® M, Bulkhead mounted housing, Rear mounting, IP66  Pack contents: Mounting frame is included with- in the delivery		09 37 006 0391		<p>Panel cut out</p>
Han® M, Bulkhead mounted housing, Rear mounting, IP66		09 37 006 0392		<p>Panel cut out</p>
Han® M, Bulkhead mounted housing, With metal cover, IP65		09 37 006 0318		
Han® M, Surface mounted housing, With thermo-plastic cover, Side entry, Han-Easy Lock®, IP65	2x M25		19 37 006 0296	

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® M, Surface mounted housing, Side entry, IP65 	2x M20	19 37 006 1290		
Han® M, Protection cover, for bulkhead mounted housings, for surface mounted housings, Metal, IP65 		09 37 006 5405	09 37 006 5405	
Han® M, Protection cover, for cable to cable housing, Metal, IP65 		09 37 006 5407	09 37 006 5407	


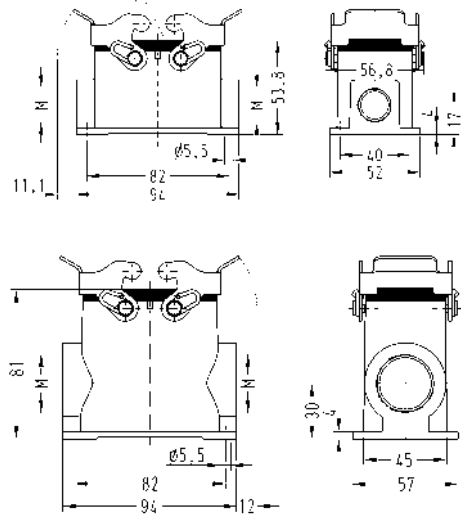

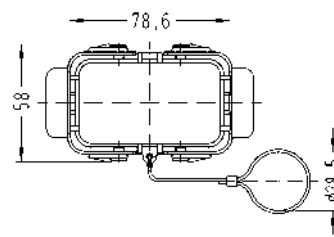

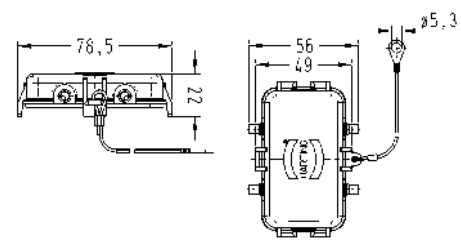
Hoods/housings for rough environments  
Double locking lever

Housings


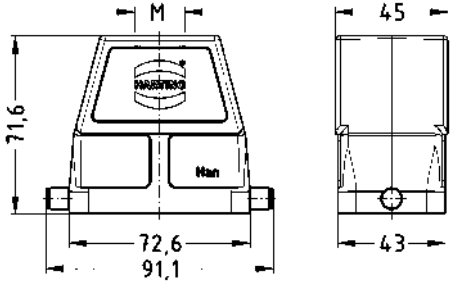

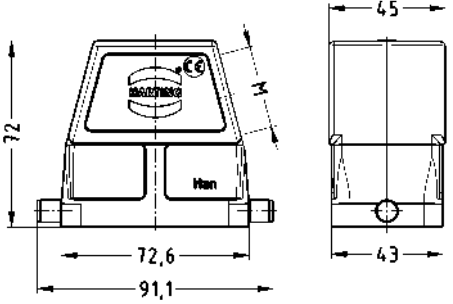

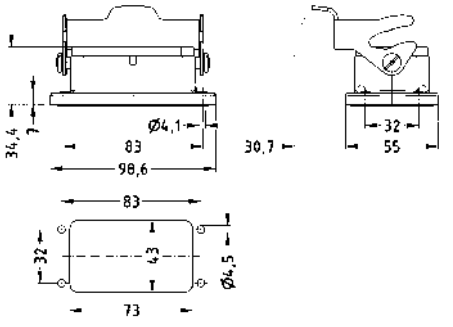
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® M, Hood, Top entry, IP65, IP66, IP67  	1x M20 1x M25 1x M32 2x M20	19 37 010 1420	19 37 010 0426 19 37 010 0427 19 37 010 0465	
Han® M, Hood, Side entry, IP65, IP66, IP67  	1x M20 1x M25 1x M32 1x M40 2x M16	19 37 010 1520	19 37 010 0526 19 37 010 0527 19 37 010 0528 19 37 010 0564	  

Identification	Cable entry	Part number		Drawing (dimensions in mm)	
		Low construction	High construction		
Han® M, Bulkhead mounted housing, IP65  		09 37 010 0301		 <p>Panel cut out</p>	
Han® M, Bulkhead mounted housing, Rear mounting, IP66  Pack contents: Mounting frame is included with- in the delivery  		09 37 010 0391		 <p>Panel cut out</p>	
Han® M, Bulkhead mounted housing, Rear mounting, IP66  		09 37 010 0392		 <p>Panel cut out</p>	


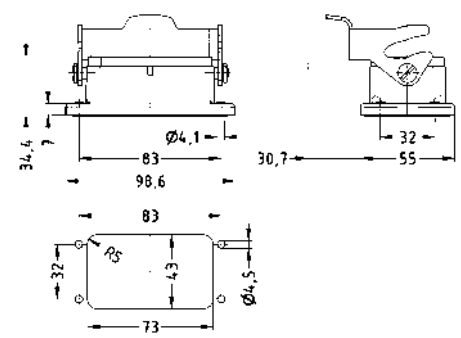

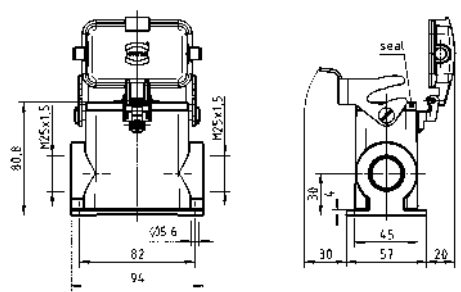
Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
<p>Han® M, Surface mounted housing, Side entry, IP65</p> 	<p>2x M20 2x M32</p>	<p>19 37 010 1270</p>	<p>19 37 010 0272</p>	
<p>Han® M, Protection cover, for hoods, Metal, With fixing cord, IP65</p> 		<p>09 37 010 5403</p>	<p>09 37 010 5403</p>	
<p>Han® M, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, Metal, With fixing cord, IP65</p> 		<p>09 37 010 5405</p>	<p>09 37 010 5405</p>	

Hoods/housings for rough environments  
Single locking lever

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® M, Hood, Top entry, IP65, IP66, IP67  	1x M20 1x M32		19 37 010 0445 19 37 010 0447	
Han® M, Hood, Side entry, IP65, IP66, IP67  	1x M32 1x M40		19 37 010 0547 19 37 010 0548	
Han® M, Bulkhead mounted housing, Rear mounting, IP66  Pack contents: Mounting frame is included with- in the delivery  		09 37 010 0397		 <p>Panel cut out</p>


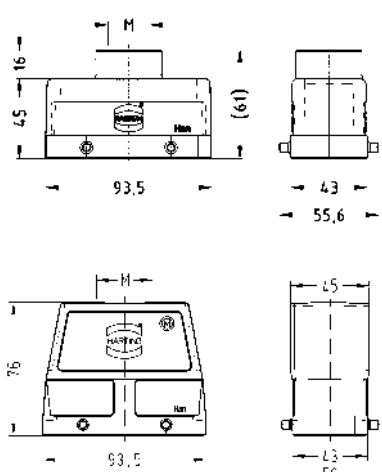

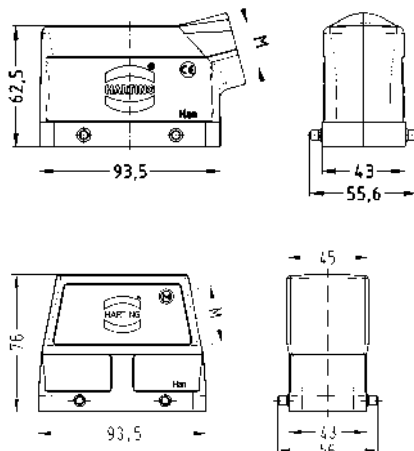

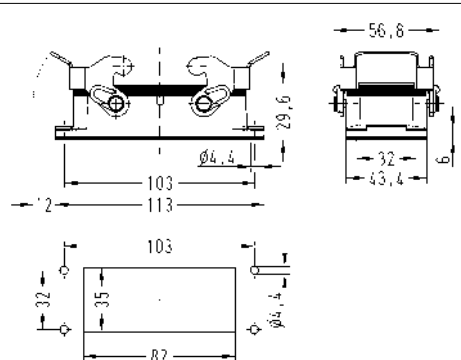
Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® M, Bulkhead mounted housing, Rear mounting, IP66  		09 37 010 0398		 <p>Panel cut out</p>
Han® M, Surface mounted housing, Side entry, IP65  	2x M25		19 37 010 0296	




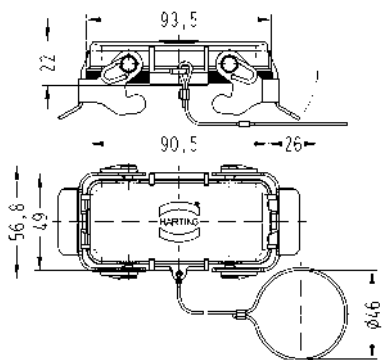

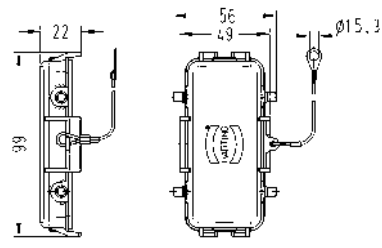
Hoods/housings for rough environments  
Double locking lever

Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® M, Hood, Top entry, IP65, IP66, IP67  	1x M25 1x M32 1x M40	19 37 016 1421	19 37 016 0427 19 37 016 0428	
Han® M, Hood, Side entry, IP65, IP66, IP67  	1x M25 1x M32 1x M40	19 37 016 1521	19 37 016 0527 19 37 016 0528	
Han® M, Bulkhead mounted housing, IP65  		09 37 016 0301		 Panel cut out


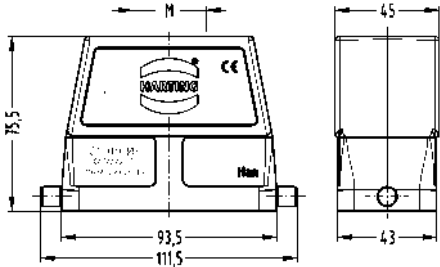

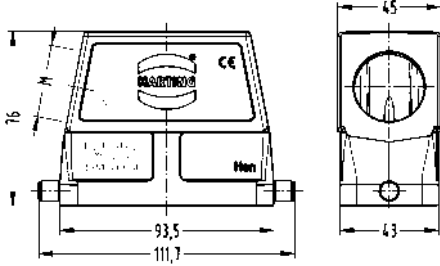

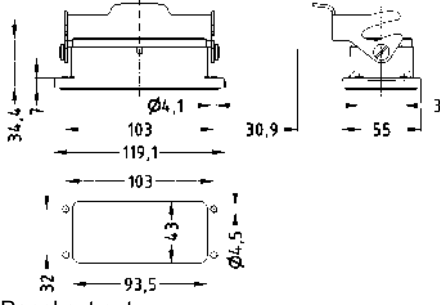

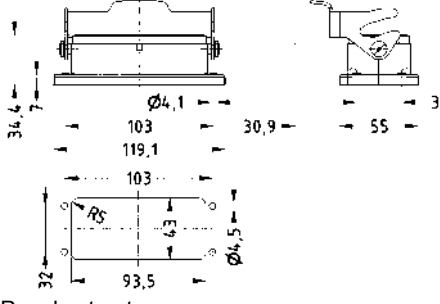
Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® M, Bulkhead mounted housing, Rear mounting, IP66  Pack contents: Mounting frame is included with- in the delivery		09 37 016 0391		<p>Panel cut out</p>
Han® M, Bulkhead mounted housing, Rear mounting, IP66		09 37 016 0392		<p>Panel cut out</p>
Han® M, Surface mounted housing, Side entry, IP65	1x M25 2x M25 2x M32 2x M40	19 37 016 1231 19 37 016 1271	19 37 016 0272 19 37 016 0273	


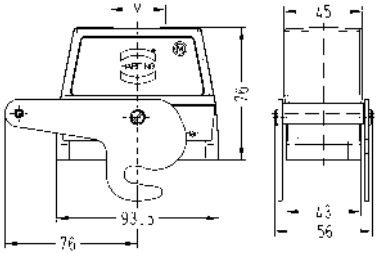

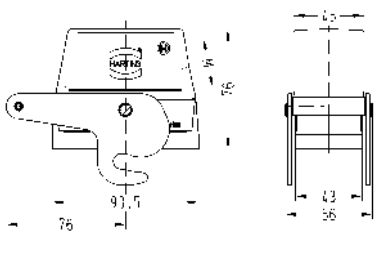

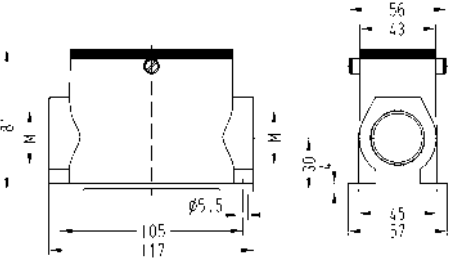
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
<p>Han® M, Protection cover, for hoods, Metal, With fixing cord, IP65</p> 		09 37 016 5402	09 37 016 5402	
<p>Han® M, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, Metal, With fixing cord, IP65</p> 		09 37 016 5405	09 37 016 5405	

Hoods/housings for rough environments  
Single locking lever

Housings


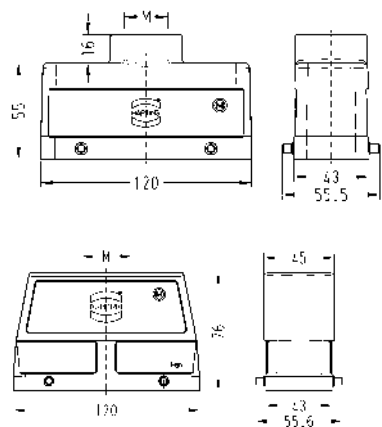

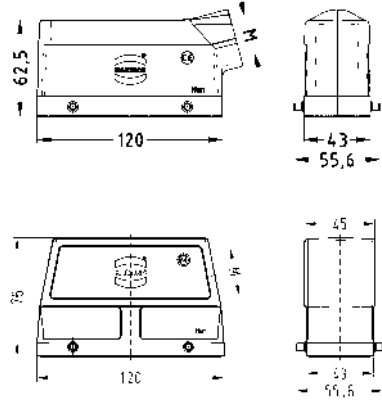

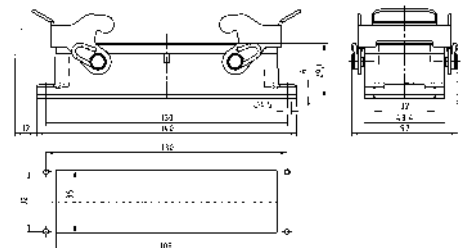
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® M, Hood, Top entry, IP65, IP66, IP67  	1x M32		19 37 016 0447	
Han® M, Hood, Side entry, IP65, IP66, IP67  	1x M32 1x M40		19 37 016 0547 19 37 016 0548	
Han® M, Bulkhead mounted housing, Rear mounting, IP66  Pack contents: Mounting frame is included with- in the delivery  		09 37 016 0397		 <p>Panel cut out</p>
Han® M, Bulkhead mounted housing, Rear mounting, IP66  		09 37 016 0398		 <p>Panel cut out</p>

Hoods/housings for rough environments  
Central locking lever (on the hood)

Identification	Cable entry	Part number High construction	Drawing (dimensions in mm)
Han® M, Hood, Top entry, IP65  	1x M32	19 37 016 0487	
Han® M, Hood, Side entry, IP65  	1x M32	19 37 016 0587	
Han® M, Surface mounted housing, Side entry, IP65  	2x M32	19 37 016 0282	

Hoods/housings for rough environments  
Double locking lever


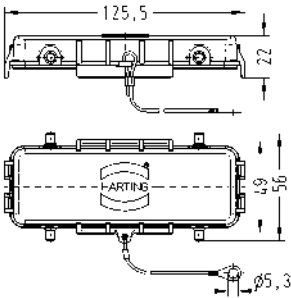
Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® M, Hood, Top entry, IP65, IP66, IP67  	1x M25 1x M32 1x M40 2x M25 2x M32	19 37 024 1421	19 37 024 0427 19 37 024 0428 19 37 024 0466 19 37 024 0467	
Han® M, Hood, Side entry, IP65, IP66, IP67  	1x M25 1x M32 1x M40	19 37 024 1521	19 37 024 0527 19 37 024 0528	
Han® M, Bulkhead mounted housing, IP65  		09 37 024 0301		 Panel cut out

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® M, Bulkhead mounted housing, Rear mounting, IP66  Pack contents: Mounting frame is included with- in the delivery		09 37 024 0391		<p>Panel cut out</p>
Han® M, Bulkhead mounted housing, Rear mounting, IP66		09 37 024 0392		<p>Panel cut out</p>
Han® M, Surface mounted housing, Side entry, IP65	2x M32 2x M40		19 37 024 0272 19 37 024 0273	
Han® M, Cable to cable housing, Side entry, IP65	1x M40		19 37 024 0733	
Han® M, Protection cover, for hoods, Metal, With fixing cord, IP65		09 37 024 5402	09 37 024 5402	



Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
<p>Han® M, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, Metal, With fixing cord, IP65</p> 		09 37 024 5405	09 37 024 5405	




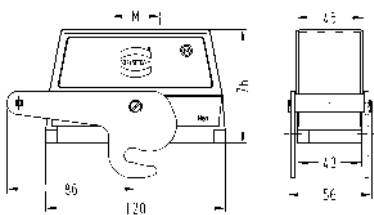

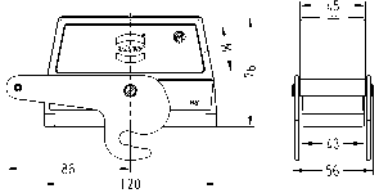

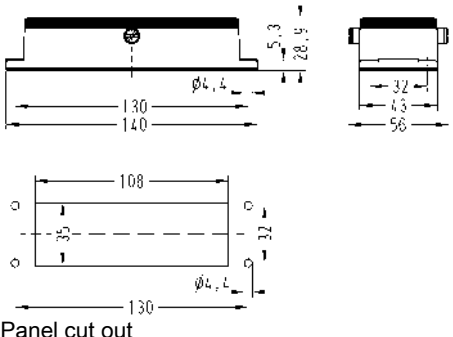

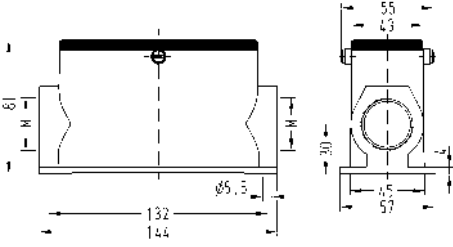
Hoods/housings for rough environments  
Single locking lever

Housings


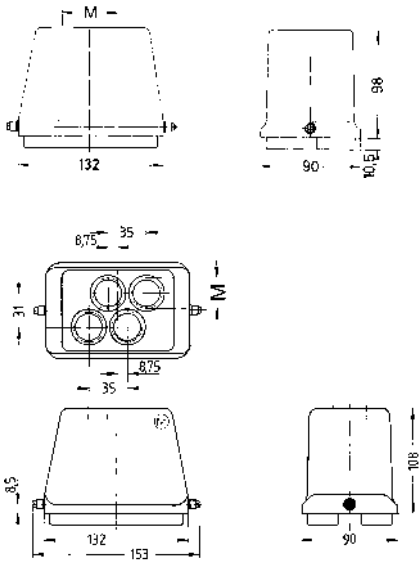

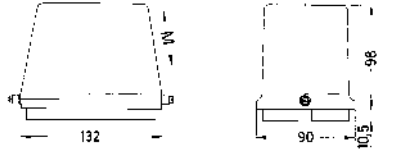

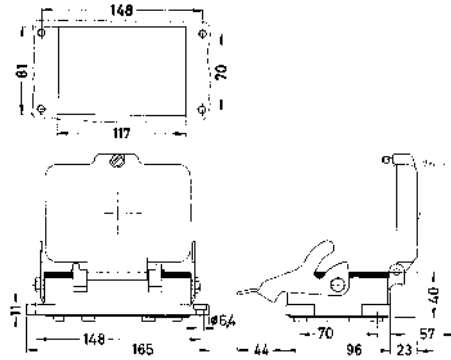
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® M, Hood, Top entry, IP65, IP66, IP67	2x M32		19 37 024 0457	
Han® M, Hood, Side entry, IP65, IP66, IP67	1x M40		19 37 024 0548	
Han® M, Bulkhead mounted housing, Rear mounting, IP66  Pack contents: Mounting frame is included with- in the delivery		09 37 024 0397		<p>Panel cut out</p>
Han® M, Bulkhead mounted housing, Rear mounting, IP66		09 37 024 0398		<p>Panel cut out</p>

Hoods/housings for rough environments  
Central locking lever (on the hood)


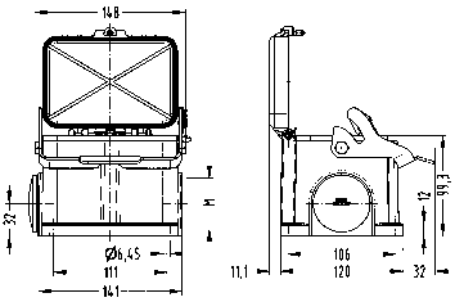
Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® M, Hood, Top entry, IP65  	1x M32		19 37 024 0487	
Han® M, Hood, Side entry, IP65  	1x M32		19 37 024 0587	
Han® M, Bulkhead mounted housing, IP65  		09 37 024 0381		 <p>Panel cut out</p>
Han® M, Surface mounted housing, Side entry, IP65  	2x M32		19 37 024 0282	

Hoods/housings for rough environments  
Single locking lever

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® M, Hood, Top entry, IP65  	1x M40 1x M50 4x M25		19 37 048 0448 19 37 048 0449 19 37 048 0401	
Han® M, Hood, Side entry, IP65  	1x M40 1x M50		19 37 048 0548 19 37 048 0549	
Han® M, Bulkhead mounted housing, With thermo-plastic cover, IP65  		09 37 048 0301		

Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® M, Surface mounted housing, With metal cover, Side entry, IP65 Pack contents: Blind way for one cable entry 	2x M50		19 37 048 0299	

## Features

- Hoods/Housings for higher EMC requirements
- Continuous shield connection using conductive surface and conductive seal
- Metal hoods / housings with high shielding efficiency
- Field of application: for sensitive interconnections that have to be shielded against electrical, magnetic or electro-magnetic interferences
- Distinguishing feature: Electrically conductive surface, internal seal

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP44, IP65 / IP67, with seal screw 09 20 000 9918
Type rating acc. to UL 50 / UL 50E	12
Material (hood/housing)	Zinc die-cast
Surface (hood/housing)	Uncoated
Colour (hood/housing)	Unpainted
Material (seal)	PTFE, NBR
Material (locking)	Steel
Surface (locking)	Zinc plated
RoHS	compliant with exemption, compliant


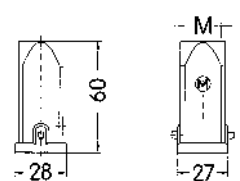

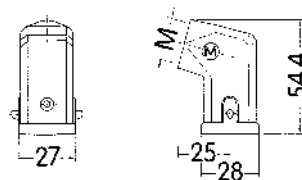
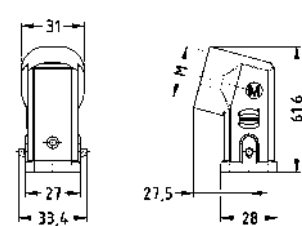

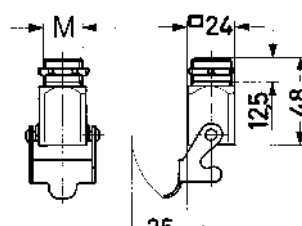
## Specifications and approvals




DNV GL  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076



Hoods/Housings for higher EMC requirements  
Single locking lever



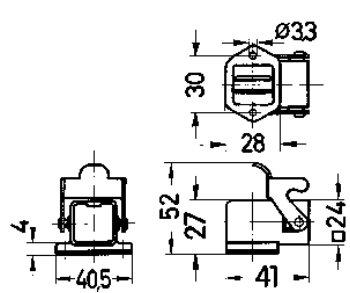

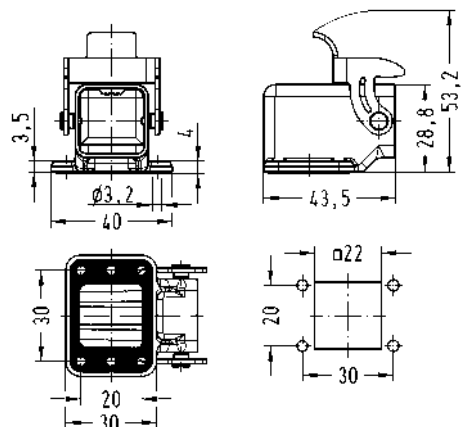

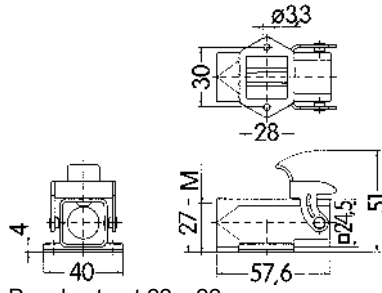
Housings

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® EMC, Hood, Top entry, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p> 	<p>1x M20 1x M25</p>	<p>19 62 003 1440 19 62 003 1445</p>	
<p>Han® EMC, Hood, Side entry, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p> 	<p>1x M20 1x M25</p>	<p>19 62 003 1640 19 62 003 1645</p>	 
<p>Han® EMC, Screw mounted housing, Straight, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p> 	<p>1x M20</p>	<p>19 62 003 1150</p>	

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® EMC, Screw mounted housing, Angled, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p> 	<p>1x M20 1x M25</p>	<p>19 62 003 1160 19 62 003 1165</p>	
<p>Han® EMC, Bulkhead mounted housing, Straight, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p> 		<p>09 62 003 0301</p>	
<p>Han® EMC, Bulkhead mounted housing, Straight, for PCB termination with Han® Q 5/0, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p> 		<p>09 62 003 0304</p>	



Housings

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® EMC, Bulkhead mounted housing, With metal cover, With seal (NBR), IP44, IP65 / IP67 with seal screw 09 20 000 9918</p>  <p>for female inserts</p>		09 62 003 0306	
<p>Han® EMC, Bulkhead mounted housing, Angled, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p> 		09 62 003 0801	 <p>Panel cut out 22 x 22 mm</p>
<p>Han® EMC, Bulkhead mounted housing, Angled, 4 fixing screws, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p> 		09 62 003 0810	
<p>Han® EMC, Surface mounted housing, Top entry, IP44, IP65 / IP67 with seal screw 09 20 000 9918</p> 	1x M20	19 62 003 1250	 <p>Panel cut out 22 x 22 mm</p>



Identification	Cable entry	Part number	Drawing (dimensions in mm)
Han® EMC, Surface mounted housing, Bottom closed, Top entry, IP44, IP65 / IP67 with seal screw 09 20 000 9918	1x M20	19 62 003 1252	
Han® EMC, Cable to cable housing, Top entry, IP44, IP65 / IP67 with seal screw 09 20 000 9918	1x M20 1x M25	19 62 003 1750 19 62 003 1755	
Han® EMC, Panel feed through housing, Top entry, IP44, IP65 / IP67 with seal screw 09 20 000 9918	1x M20	19 62 003 1120	<p>Panel cut out</p>
Han® EMC, Panel feed through housing, Fixing hole for M4 screw, Top entry, IP44, IP65 / IP67 with seal screw 09 20 000 9918	1x M20	19 62 003 1121	

## Features

- Hoods/Housings for higher EMC requirements
- Continuous shield connection using conductive surface
- Metal hoods / housings with high shielding efficiency
- Field of application: for sensitive interconnections that have to be shielded against electrical, magnetic or electro-magnetic interferences
- Distinguishing feature: Electrically conductive surface, internal seal

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP65
Type rating acc. to UL 50 / UL 50E	4, 12
Material (hood/housing)	Aluminium die-cast
Surface (hood/housing)	Uncoated
Colour (hood/housing)	Unpainted
Material (seal)	NBR
Material (locking)	Polycarbonate (PC), Stainless steel
Colour (locking)	RAL 7037 (dust grey)
Material flammability class acc. to UL 94 (locking levers)	V-0
RoHS	compliant

## Specifications and approvals

UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL




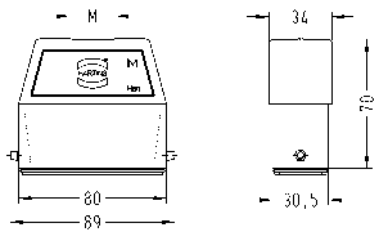

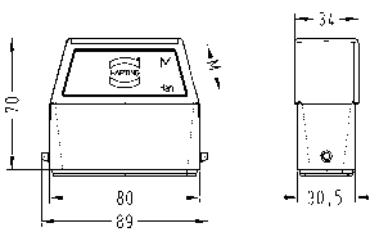

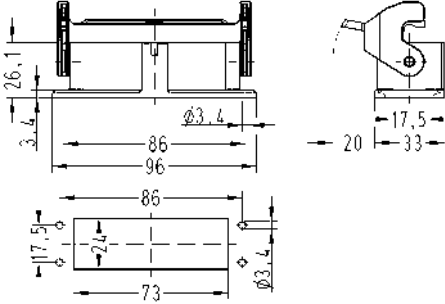
Hoods/Housings for higher EMC requirements  
Single locking lever

Housings

Identification	Cable entry	Part number	Drawing (dimensions in mm)
Han® EMC, Hood, Top entry, IP65	1x M25	19 62 015 0446	
Han® EMC, Hood, Side entry, IP65	1x M25	19 62 015 0546	
Han® EMC, Bulkhead mounted housing, Han-Easy Lock®, IP65		09 62 015 0301	<p>Panel cut out</p>

Hoods/Housings for higher EMC requirements  
Single locking lever


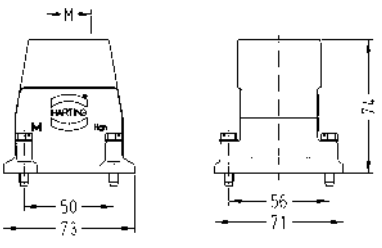

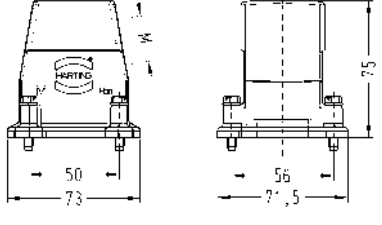

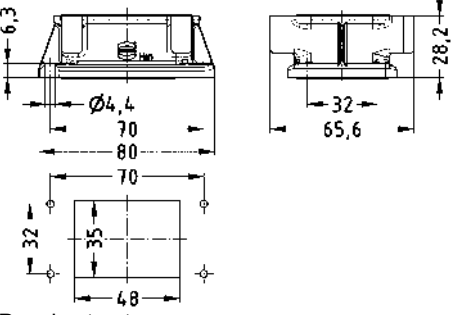
Housings

Identification	Cable entry	Part number	Drawing (dimensions in mm)
Han® EMC, Hood, Top entry, IP65  	1x M25	19 62 025 0446	
Han® EMC, Hood, Side entry, IP65  	1x M25	19 62 025 0546	
Han® EMC, Bulkhead mounted housing, Han-Easy Lock®, IP65  		09 62 025 0301	 <p>Panel cut out</p>




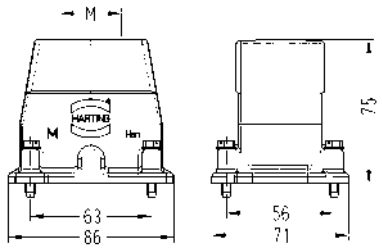

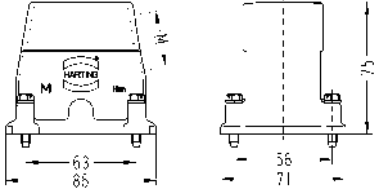

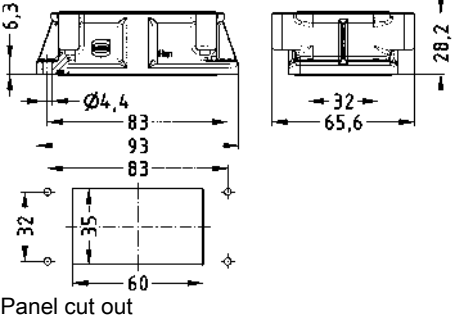
Hoods/Housings for higher EMC requirements  
Screw locking

Housings

Identification	Cable entry	Part number	Drawing (dimensions in mm)
Han® EMC, Hood, Top entry, IP65  	1x M25 1x M32	19 62 006 0441 19 62 006 0442	
Han® EMC, Hood, Side entry, IP65  	1x M25 1x M32	19 62 006 0541 19 62 006 0542	
Han® EMC, Bulkhead mounted housing, IP65  		09 62 006 0301	 <p>Panel cut out</p>

Hoods/Housings for higher EMC requirements  
Screw locking

Housings

Identification	Cable entry	Part number	Drawing (dimensions in mm)
Han® EMC, Hood, Top entry, IP65 	1x M32	19 62 010 0442	
Han® EMC, Hood, Side entry, IP65 	1x M32 1x M40	19 62 010 0542 19 62 010 0543	
Han® EMC, Bulkhead mounted housing, IP65 		09 62 010 0301	 <p>Panel cut out</p>




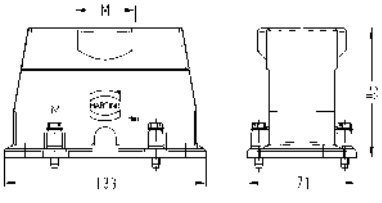

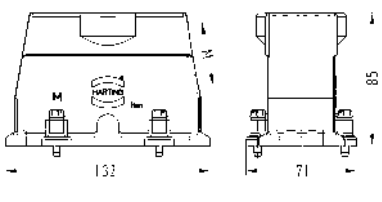

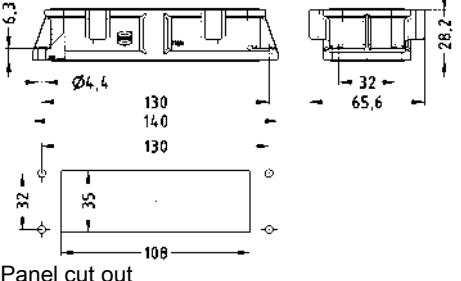
Hoods/Housings for higher EMC requirements  
Screw locking

Housings

Identification	Cable entry	Part number	Drawing (dimensions in mm)
Han® EMC, Hood, Top entry, IP65	1x M32 1x M40	19 62 040 0442 19 62 040 0443	
Han® EMC, Hood, Side entry, IP65	1x M32 1x M40	19 62 040 0542 19 62 040 0543	
Han® EMC, Bulkhead mounted housing, IP65		09 62 040 0301	<p>Panel cut out</p>

Hoods/Housings for higher EMC requirements  
Screw locking

Housings

Identification	Cable entry	Part number	Drawing (dimensions in mm)
Han® EMC, Hood, Top entry, IP65 	1x M40	19 62 064 0443	
Han® EMC, Hood, Side entry, IP65 	1x M40	19 62 064 0543	
Han® EMC, Bulkhead mounted housing, IP65 		09 62 064 0301	 <p>Panel cut out</p>



## Features

- Hoods/Housings for higher EMC requirements
- Continuous shield connection using conductive surface
- Metal hoods / housings with high shielding efficiency
- Field of application: for sensitive interconnections that have to be shielded against electrical, magnetic or electro-magnetic interferences
- Locking levers: Han-Easy Lock®
- Distinguishing feature: Electrically conductive surface, internal seal
- for front and rear wall mounting

## Technical characteristics

Limiting temperature	-40 ... +125 °C, -40 ... +200 °C With Han® High Temp components
Degree of protection acc. to IEC 60529	IP65, IP66
Type rating acc. to UL 50 / UL 50E	4, 12
Material (hood/housing)	Aluminium die-cast
Surface (hood/housing)	Uncoated
Colour (hood/housing)	Unpainted
Material (seal)	NBR
Material (locking)	Polycarbonate (PC), Stainless steel, Steel, zinc plated
Colour (locking)	RAL 7037 (dust grey)
Material (accessories)	Polyamide (PA), Stainless steel
Material flammability class acc. to UL 94 (locking levers)	V-0
RoHS	compliant, compliant with exemption


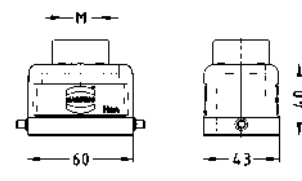

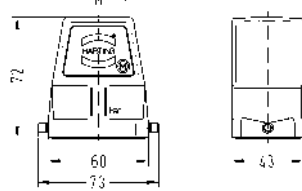

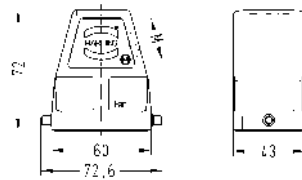

## Specifications and approvals


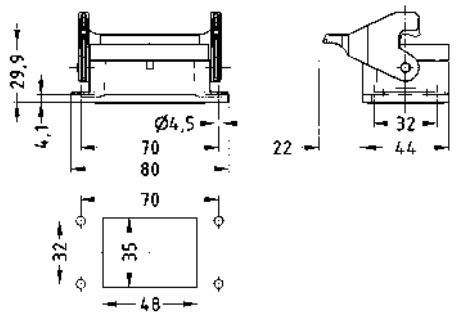

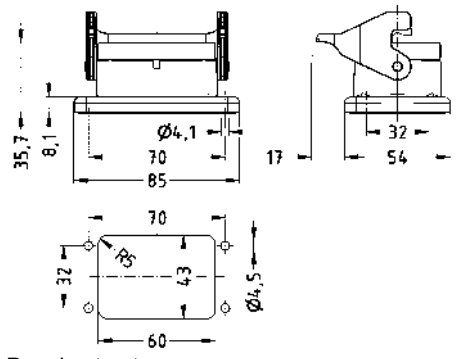

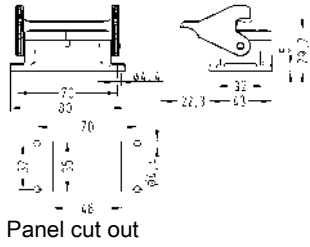

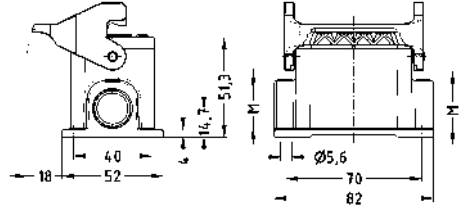
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 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL




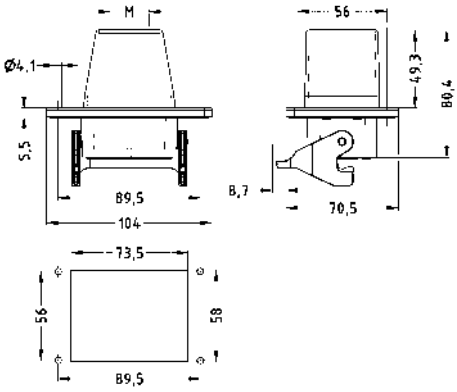

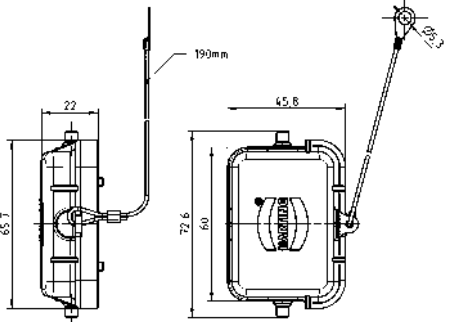
Single locking lever

Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)	
		Low construction	High construction		
Han® EMC/B, Han® High Temp, Hood, Top entry, IP65 	1x M20 1x M25 1x M32	19 62 806 1440	19 62 806 0446 19 62 806 0447		
Han® EMC/B, Han® High Temp, Hood, Side entry, IP65 	1x M20 1x M25 1x M32	19 62 806 1540 19 62 806 1541	19 62 806 0546 19 62 806 0547		
Han® EMC/B, Han® High Temp, Hood, Without cable entry, IP65 			09 62 806 0801		
Han® EMC/B, Bulkhead mounted housing, Rear mounting, External seal, Han-Easy Lock®, IP66 		09 62 806 0392			

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® EMC/B, Bulkhead mounted housing, External seal, Han-Easy Lock®, IP66  		09 62 806 2301		 <p>Panel cut out</p>
Han® EMC/B, Bulkhead mounted housing, Rear mounting, External seal, Han-Easy Lock®, IP66 Pack contents: Mounting frame is included with- in the delivery  		09 62 806 0315		 <p>Panel cut out</p>
Han® EMC/B, Bulkhead mounted housing, Internal seal, Han-Easy Lock®, IP65  		09 62 806 0301		 <p>Panel cut out</p>
Han® EMC/B, Surface mounted housing, Side entry, Han-Easy Lock®, IP65  	2x M20	19 62 806 1290		

Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® EMC/B, Panel feed through housing, Top entry, Han-Easy Lock®, IP65 	1x M25 1x M32		19 62 806 1121 19 62 806 1122	 <p>Panel cut out</p>
Han® EMC/B, Protection cover, for bulkhead mounted housings, for surface mounted housings, Metal, With fixing cord, IP65  Not suitable for housings with external seals.		09 62 806 5425	09 62 806 5425	


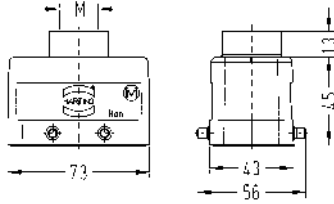
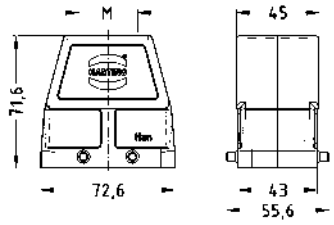

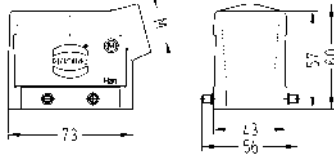
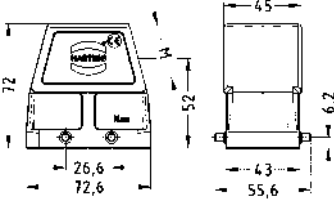

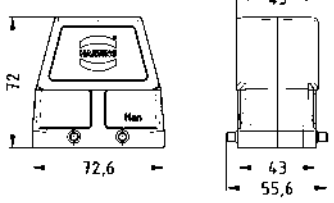
Hoods/Housings for higher EMC requirements  
Single locking lever (on the hood)



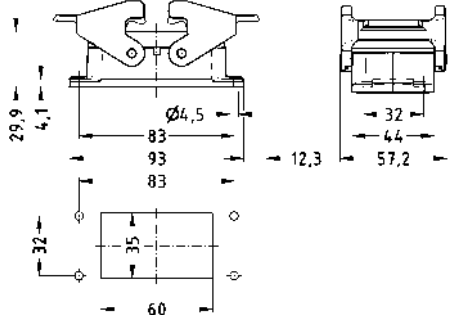

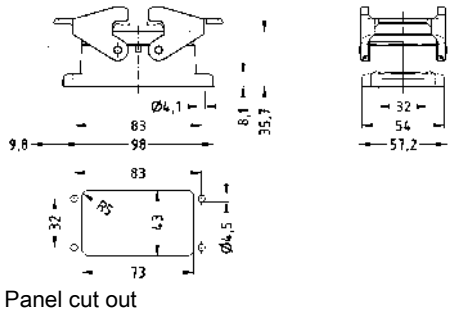

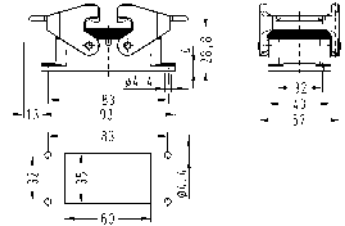
Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construc- tion	High construc- tion	
Han® EMC/B, Hood, Top entry, Han-Easy Lock®, IP65  	1x M32		19 62 806 0757	
Han® EMC/B, Hood, Han-Easy Lock®, IP65  	1x M32		19 62 806 0557	
Han® EMC/B, Bulkhead mounted housing, Internal seal, IP65  		09 62 806 0303		


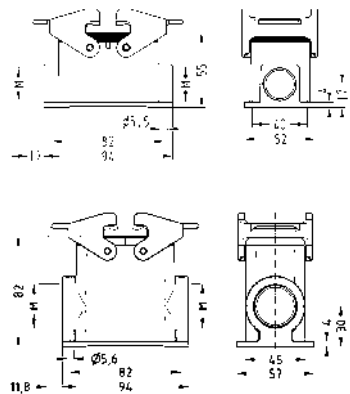

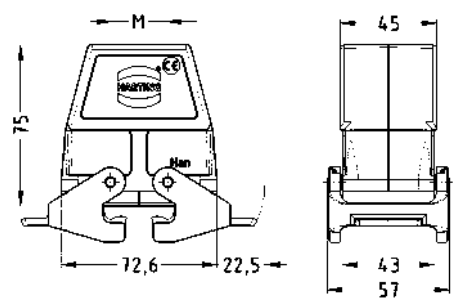

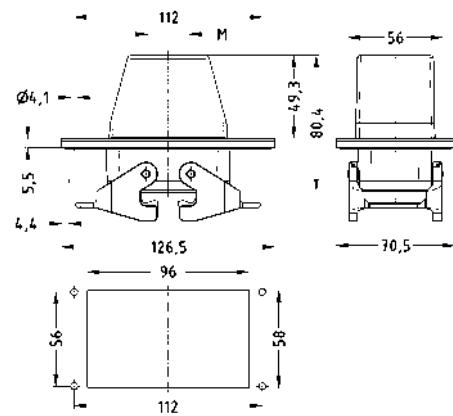
Double locking lever

Housings


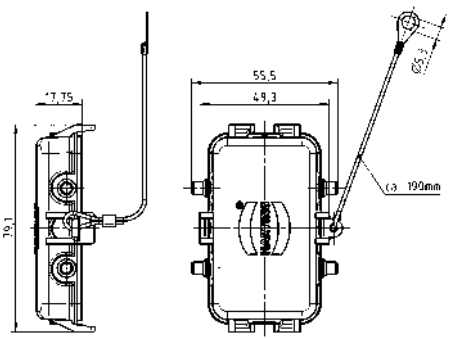
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® EMC/B, Han® High Temp, Hood, Top entry, IP65 	1x M20 1x M25 1x M32 1x M40	19 62 810 1420 19 62 810 1421	19 62 810 0426 19 62 810 0427 19 62 810 0428	 
Han® EMC/B, Han® High Temp, Hood, Side entry, IP65 	1x M20 1x M25 1x M32	19 62 810 1520	19 62 810 0526 19 62 810 0527	 
Han® EMC/B, Han® High Temp, Hood, Without cable entry, IP65 			09 62 810 0801	

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® EMC/B, Bulkhead mounted housing, Rear mounting, External seal, Han-Easy Lock®, IP66 		09 62 810 0392		
Han® EMC/B, Bulkhead mounted housing, External seal, Han-Easy Lock®, IP66 		09 62 810 2301		 <p>Panel cut out</p>
Han® EMC/B, Bulkhead mounted housing, Rear mounting, External seal, Han-Easy Lock®, IP66 Pack contents: Mounting frame is included with- in the delivery 		09 62 810 0315		 <p>Panel cut out</p>
Han® EMC/B, Bulkhead mounted housing, Internal seal, Han-Easy Lock®, IP65 		09 62 810 0301		 <p>Panel cut out</p>

Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® EMC/B, Surface mounted housing, Side entry, Han-Easy Lock®, IP65 	2x M25 2x M32	19 62 810 1271	19 62 810 0272	
Han® EMC/B, Cable to cable housing, Top entry, IP65  Han® EMC/B, Cable to cable housing, Top entry, Han-Easy Lock®, IP65 	2x M20  1x M25 1x M32		19 62 810 0765 ML  19 62 810 0766 19 62 810 0757	
Han® EMC/B, Panel feed through housing, Top entry, Han-Easy Lock®, IP65 	1x M25 1x M32		19 62 810 1121 19 62 810 1122	 <p>Panel cut out</p>


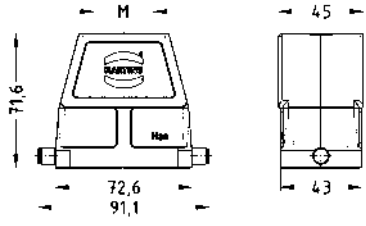

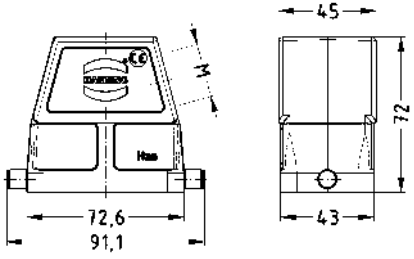





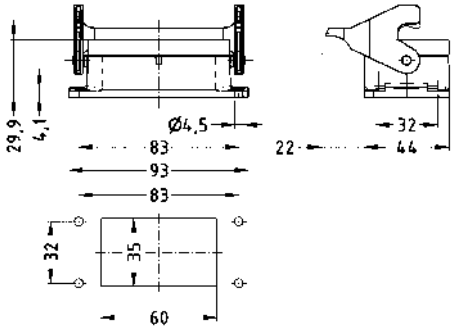

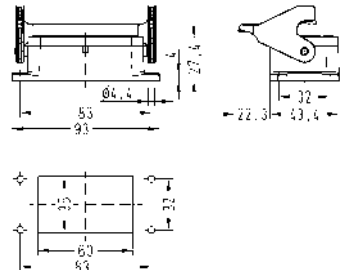
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
<p>Han® EMC/B, Protection cover, for bulkhead mounted housings, for surface mounted housings, Metal, With fixing cord, IP65</p>  <p>Not suitable for housings with external seals.</p>		09 62 810 5425	09 62 810 5425	



Hoods/Housings for higher EMC requirements  
Single locking lever


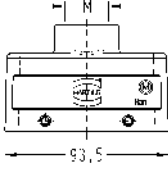
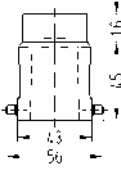

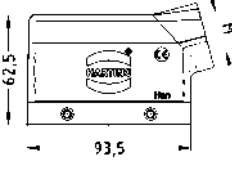
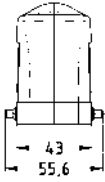

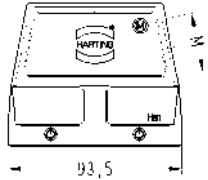
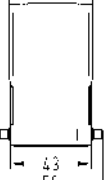
Housings




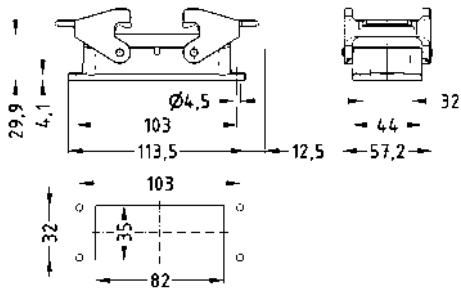

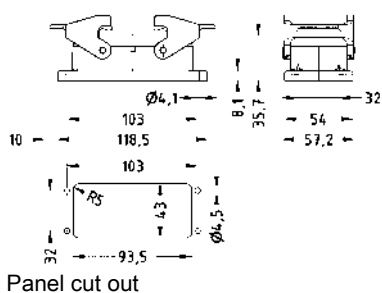

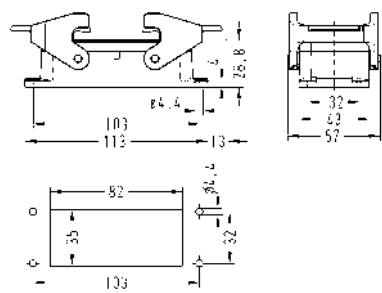
Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® EMC/B, Hood, Top entry, IP65  	1x M25 1x M32		19 62 810 0446 19 62 810 0447	
Han® EMC/B, Hood, Side entry, IP65  	1x M25 1x M32		19 62 810 0546 19 62 810 0547	
Han® EMC/B, Bulkhead mounted housing, Rear mounting, External seal, Han-Easy Lock®, IP66  Pack contents: Mounting frame is included with- in the delivery  		09 62 810 0397		
Han® EMC/B, Bulkhead mounted housing, Rear mounting, External seal, Han-Easy Lock®, IP66  		09 62 810 0398		

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® EMC/B, Bulkhead mounted housing, External seal, Han-Easy Lock®, IP66  		09 62 810 2305		 <p>Panel cut out</p>
Han® EMC/B, Bulkhead mounted housing, Internal seal, Han-Easy Lock®, IP65  		09 62 810 0305		 <p>Panel cut out</p>


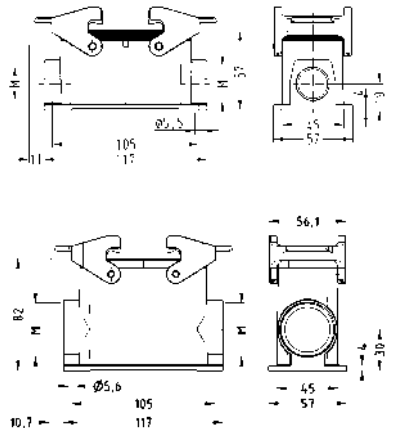

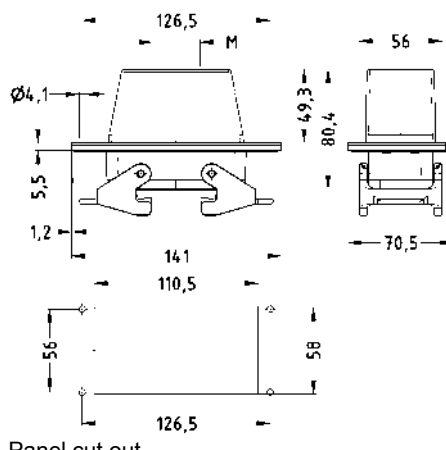

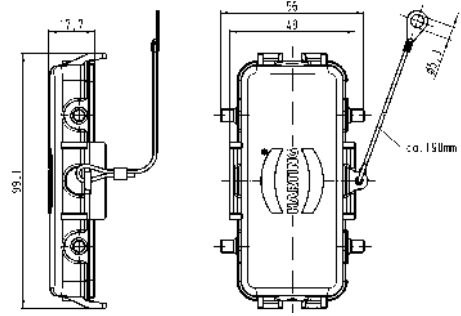
Double locking lever

Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)	
		Low construction	High construction		
Han® EMC/B, Han® High Temp, Hood, Top entry, IP65 	1x M25 1x M32 1x M40	19 62 816 1421	19 62 816 0427 19 62 816 0428	 	
Han® EMC/B, Han® High Temp, Hood, Side entry, IP65 	1x M25 1x M32 1x M40	19 62 816 1521	19 62 816 0527 19 62 816 0528	 	
Han® EMC/B, Han® High Temp, Hood, Without cable entry, IP65 			09 62 816 0801	 	

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® EMC/B, Bulkhead mounted housing, IP65  				
Han® EMC/B, Bulkhead mounted housing, Rear mounting, External seal, Han-Easy Lock®, IP66  		09 62 816 0392		
Han® EMC/B, Bulkhead mounted housing, External seal, Han-Easy Lock®, IP66  		09 62 816 2301		 <p>Panel cut out</p>
Han® EMC/B, Bulkhead mounted housing, Rear mounting, External seal, Han-Easy Lock®, IP66  Pack contents: Mounting frame is included with- in the delivery  		09 62 816 0315		 <p>Panel cut out</p>
Han® EMC/B, Bulkhead mounted housing, Internal seal, Han-Easy Lock®, IP65  		09 62 816 0301		 <p>Panel cut out</p>



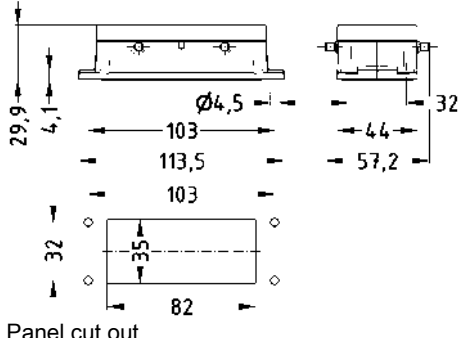

Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® EMC/B, Surface mounted housing, Side entry, Han-Easy Lock®, IP65 	2x M25 2x M40	19 62 816 1271	19 62 816 0273	
Han® EMC/B, Panel feed through housing, Top entry, Han-Easy Lock®, IP65 	1x M32 1x M40		19 62 816 1121 19 62 816 1122	 <p>Panel cut out</p>
Han® EMC/B, Protection cover, for bulkhead mounted housings, for surface mounted housings, Metal, With fixing cord, IP65  <p>Not suitable for housings with external seals.</p>		09 62 816 5425	09 62 816 5425	



Hoods/Housings for higher EMC requirements  
Double locking lever (on the hood)



Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® EMC/B, Hood, Side entry, Han-Easy Lock®, IP65  	1x M40		19 62 816 0538	
Han® EMC/B, Bulkhead mounted housing, External seal, IP66  		09 62 816 2303		 <p>Panel cut out</p>
Han® EMC/B, Bulkhead mounted housing, Internal seal, IP65  		09 62 816 0303		



Hoods/Housings for higher EMC requirements  
Single locking lever


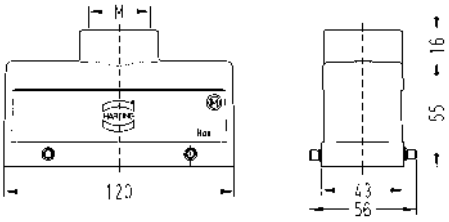
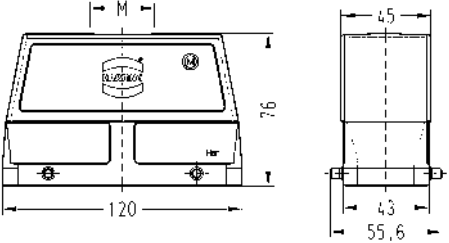

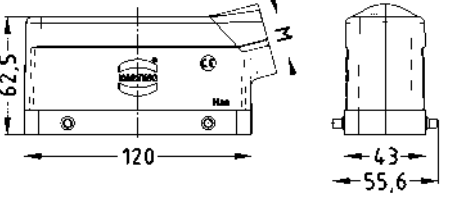
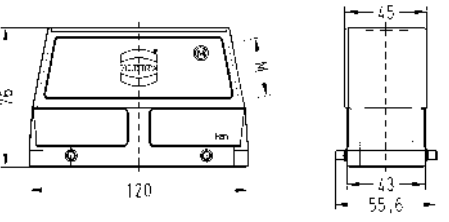

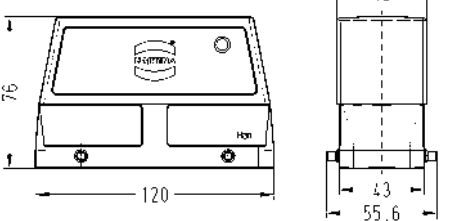
Housings

Identification	Part number Low construction	Drawing (dimensions in mm)
<p>Han® EMC/B, Bulkhead mounted housing, Rear mounting, External seal, Han-Easy Lock®, IP66</p> <p>Pack contents: Mounting frame is included within the delivery</p> 	<p>09 62 816 0397</p>	
<p>Han® EMC/B, Bulkhead mounted housing, Rear mounting, External seal, Han-Easy Lock®, IP66</p> 	<p>09 62 816 0398</p>	



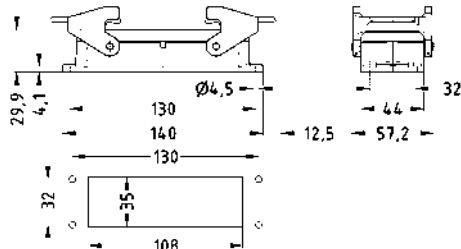

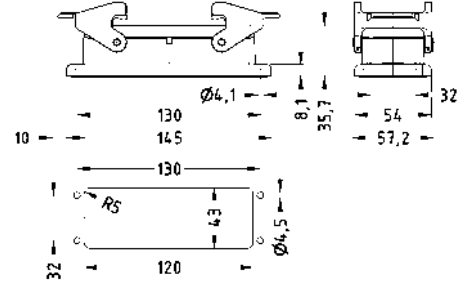

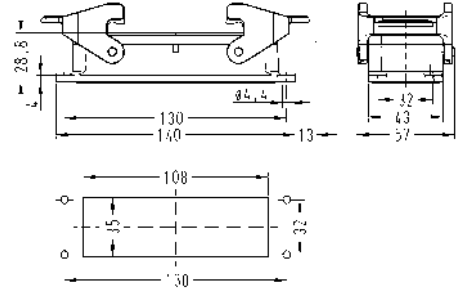



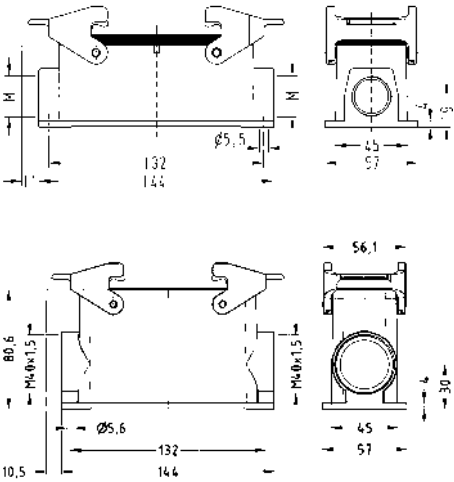

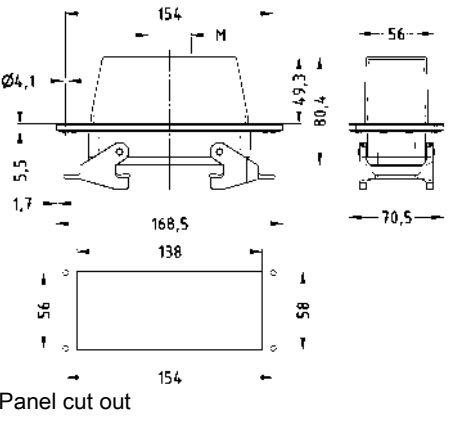

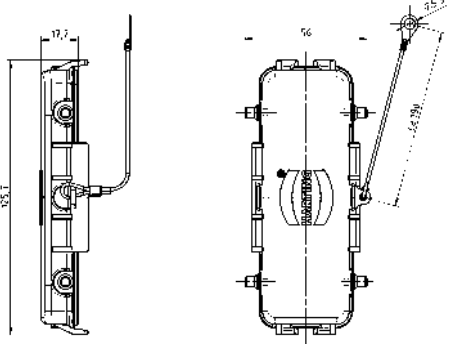
Double locking lever

Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® EMC/B, Han® High Temp, Hood, Top entry, IP65  	1x M32 1x M40 1x M50	19 62 824 1422	19 62 824 0427 19 62 824 0428 19 62 824 0429	 
Han® EMC/B, Han® High Temp, Hood, Side entry, IP65  	1x M25 1x M32 1x M40	19 62 824 1521	19 62 824 0527 19 62 824 0528	 
Han® EMC/B, Han® High Temp, Hood, Without cable entry, IP65  			09 62 824 0801	

Housings



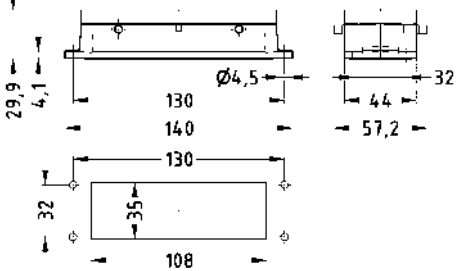

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® EMC/B, Bulkhead mounted housing, Rear mounting, External seal, Han-Easy Lock®, IP66  		09 62 824 0392		
Han® EMC/B, Bulkhead mounted housing, External seal, Han-Easy Lock®, IP66  		09 62 824 2301		 <p>Panel cut out</p>
Han® EMC/B, Bulkhead mounted housing, Rear mounting, External seal, Han-Easy Lock®, IP66 Pack contents: Mounting frame is included with- in the delivery  		09 62 824 0315		 <p>Panel cut out</p>
Han® EMC/B, Bulkhead mounted housing, Internal seal, Han-Easy Lock®, IP65  		09 62 824 0301		 <p>Panel cut out</p>

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® EMC/B, Surface mounted housing, Side entry, Han-Easy Lock®, IP65  	2x M25 2x M40	19 62 824 1271	19 62 824 0273	
Han® EMC/B, Panel feed through housing, Top entry, Han-Easy Lock®, IP65  	1x M32 1x M40		19 62 824 1121 19 62 824 1122	 <p>Panel cut out</p>
Han® EMC/B, Protection cover, for bulkhead mounted housings, for surface mounted housings, Metal, With fixing cord, IP65   <p>Not suitable for housings with external seals.</p>		09 62 824 5425	09 62 824 5425	



Hoods/Housings for higher EMC requirements  
Double locking lever (on the hood)

Housings

Identification	Cable entry	Part number		Drawing (dimensions in mm)
		Low construction	High construction	
Han® EMC/B, Hood, Side entry, Han-Easy Lock®, IP65  	1x M40 1x M40 2x M40		19 62 824 0538 19 62 824 0748 19 62 824 0578	
Han® EMC/B, Bulkhead mounted housing, External seal, IP66  		09 62 824 2306		 <p>Panel cut out</p>
Han® EMC/B, Bulkhead mounted housing, Internal seal, IP65  		09 62 824 0306		

## Features

- Hoods/housings for harsh outdoor environments
- Metal hoods and housings with excellent corrosion resistance
- Corrosion resistance ASTM B117-09 (500 h)
- Excellent EMC characteristics
- Screw locking M4
- Field of application: for external electrical interconnections in vehicles, in highly demanding environments and wet areas, as well as for sensitive interconnections that have to be shielded
- Distinguishing feature: colour-coded black, internal seal

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Tightening torque (screw locking)	2 Nm
Degree of protection acc. to IEC 60529	IP65, IP68, IP69 / IPX9K acc. to ISO 20653
Type rating acc. to UL 50 / UL 50E	4, 4X, 12
Material (hood/housing)	Zinc die-cast
Surface (hood/housing)	Powder-coated, Chromated
Colour (hood/housing)	RAL 9005 (jet black)
Material (seal)	NBR
Material (locking)	Stainless steel
RoHS	compliant, not compliant

## Specifications and approvals

UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL




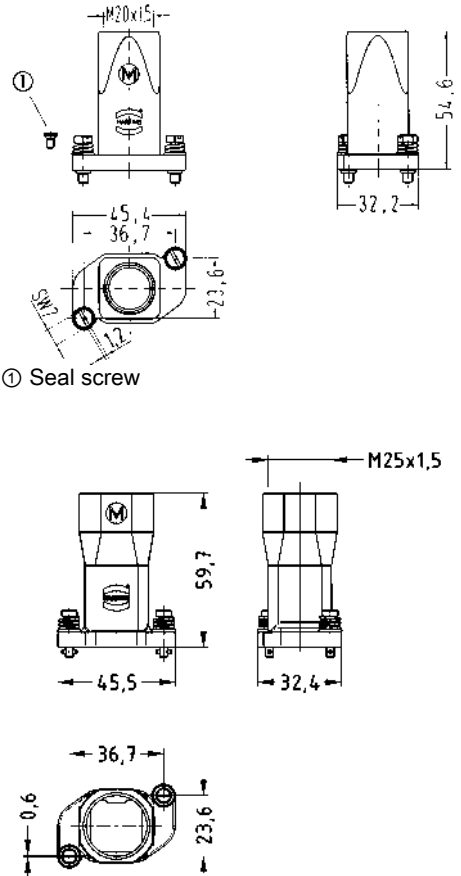

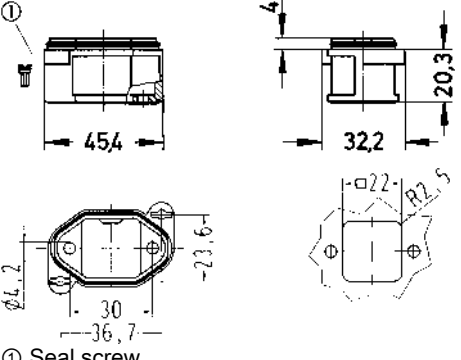
## Details


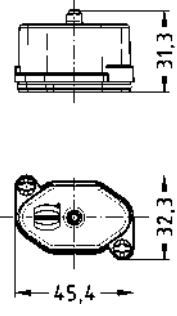

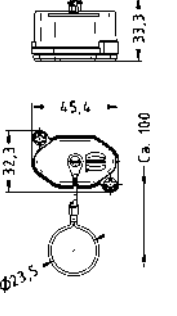

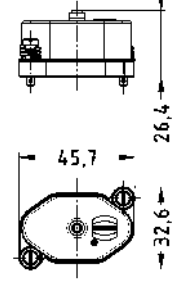

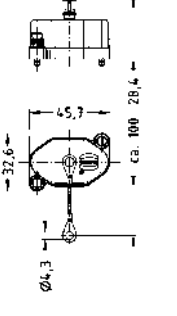
By using the inserts of Han® Q and Han A® series, the sealing on the insert has to be removed. The sealing screw of the insert must be replaced by the sealing screw of the hood/housing.

By using the angled bulkhead and surface mounted housings with through holes in the mounting flanges, it has to be ensured by the customer that the fixing screws appropriately sealed from the inside of the housing.


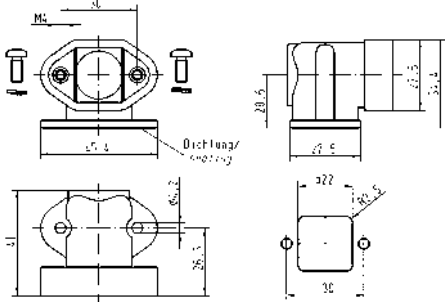

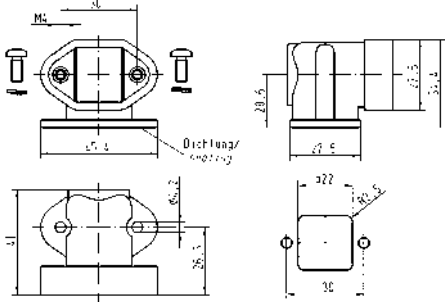
Hoods/housings for harsh outdoor environments  
Toggle locking

Housings

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Hood, Top entry, IP65, IP68</p> <p>Pack contents: With seal screw</p> 	<p>1x M20 1x M25</p>	<p>19 40 703 0400 19 40 703 0401</p>	 <p>① Seal screw</p>
<p>Han® HPR, Bulkhead mounted housing, Straight, IP65, IP68</p> <p>Pack contents: With seal screw</p> 		<p>09 40 703 0301</p>	 <p>① Seal screw</p>

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Protection cover, for hoods, IP65, IP68</p> 		09 40 703 5403	
<p>Han® HPR, Protection cover, for hoods, With fixing cord, IP65, IP68</p> 		09 40 703 5404	
<p>Han® HPR, Protection cover, for bulkhead mounted housings, for surface mounted housings, IP65, IP68</p> 		09 40 703 5401	
<p>Han® HPR, Protection cover, for bulkhead mounted housings, for surface mounted housings, With fixing cord, IP65, IP68</p> 		09 40 703 5402	


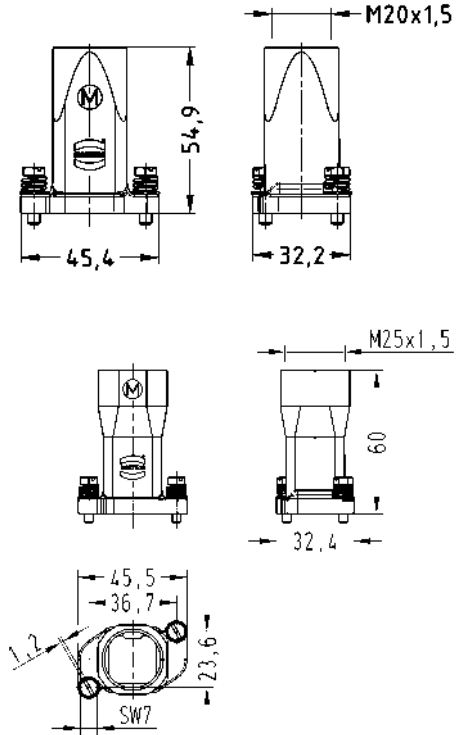

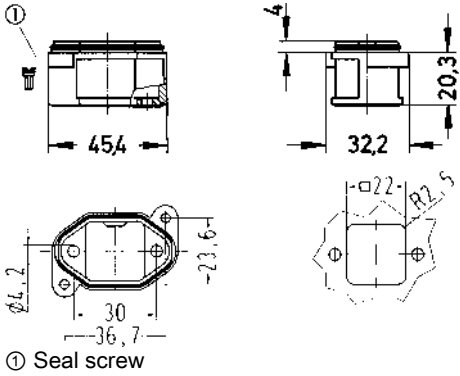
Housings

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Adapter, Open bottom, for assembly of bulkhead mounted bulkhead mounted position, Top entry, IP65, IP68</p> 	<p>1x M20</p>	<p>19 40 703 0900</p>	
<p>Han® HPR, Adapter, Open bottom, for assembly of bulkhead mounted bulkhead mounted position, IP65, IP68</p> 		<p>09 40 703 0902</p>	


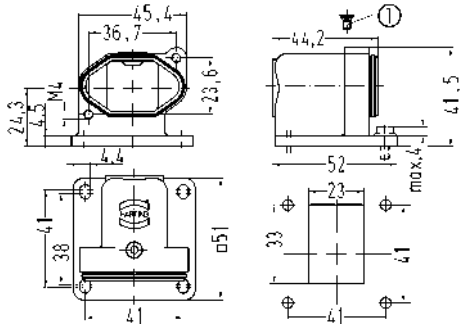

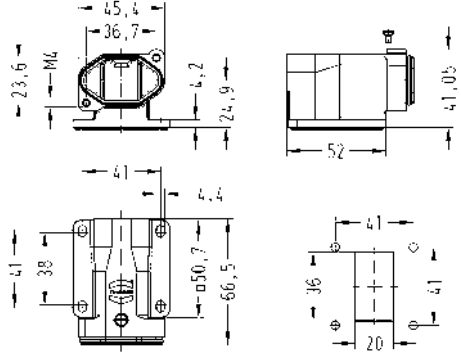

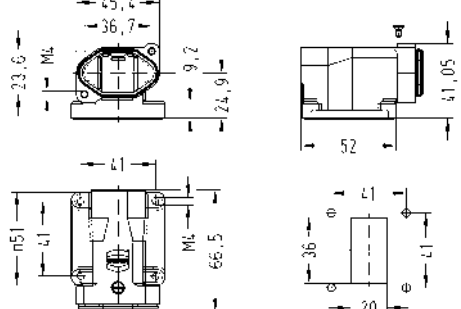

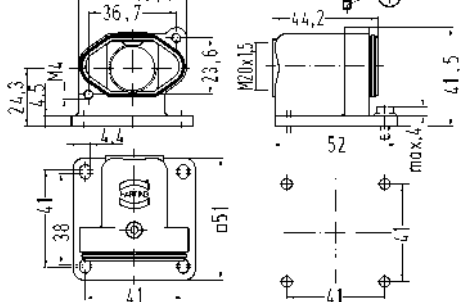



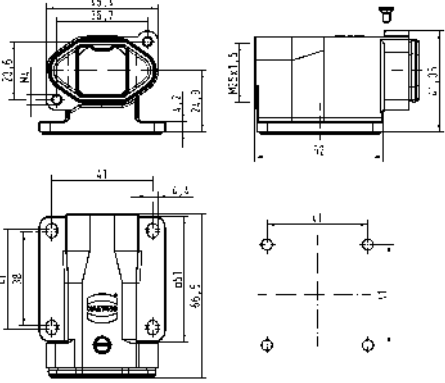

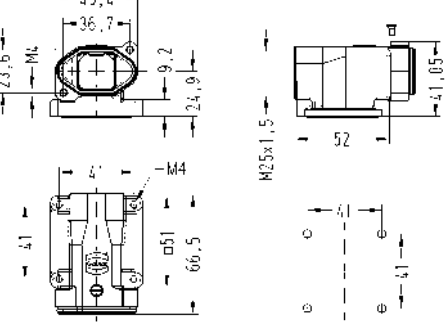

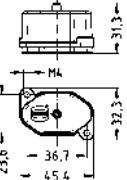

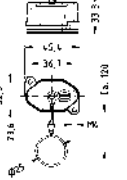
Hoods/housings for harsh outdoor environments  
Screw locking

Housings


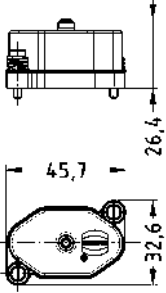

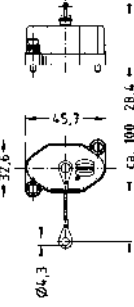

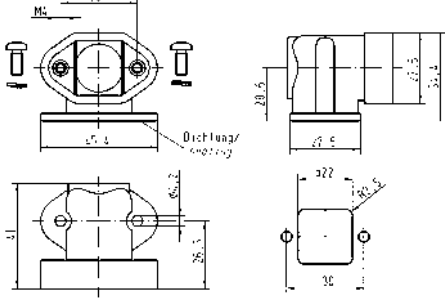

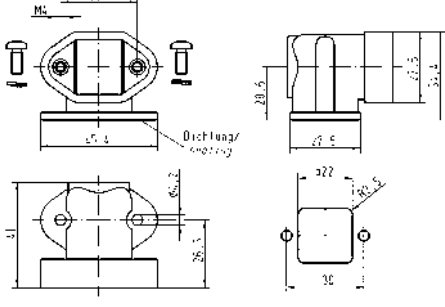
Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Hood, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> <p>Pack contents: With seal screw</p> 	<p>1x M20 1x M25</p>	<p>19 40 703 0410 19 40 703 0411</p>	
<p>Han® HPR, Bulkhead mounted housing, Straight, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> <p>Pack contents: With seal screw</p> 		<p>09 40 703 0311</p>	 <p>① Seal screw</p>

Housings

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Bulkhead mounted housing, Angled, Open bottom, Feed through hole for fixing screws, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> <p>Pack contents: With seal screw</p> 		09 40 703 0950	 <p>① Seal screw</p>
<p>Han® HPR, Bulkhead mounted housing, Angled, Open bottom, Long version, Feed through hole for fixing screws, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> <p>Pack contents: With seal screw</p> 		09 40 703 0951	
<p>Han® HPR, Bulkhead mounted housing, Angled, Open bottom, Long version, Tapped blind hole for fixing screws, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> <p>Pack contents: With seal screw</p> 		09 40 703 0953	
<p>Han® HPR, Surface mounted housing, Angled, Bottom closed, Feed through hole for fixing screws, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> <p>Pack contents: With seal screw</p> 	1x M20	19 40 703 0950	 <p>① Seal screw</p>


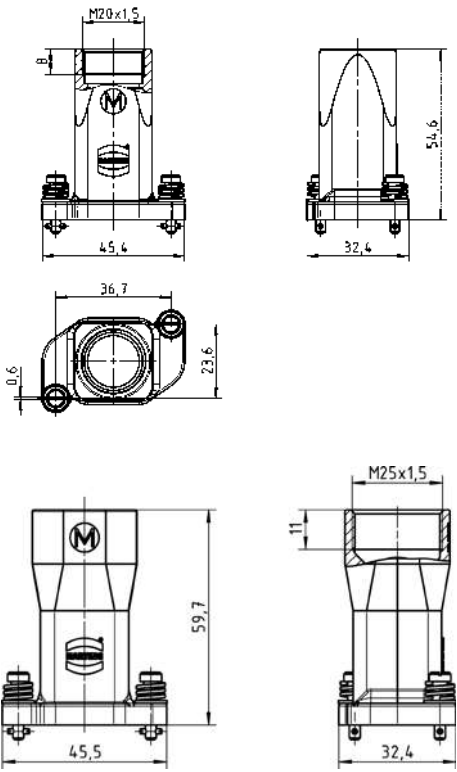

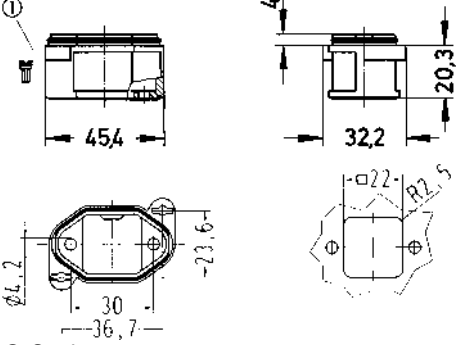
Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Surface mounted housing, Angled, Bottom closed, Long version, Bottom closed, Feed through hole for fixing screws, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653 Pack contents: With seal screw</p> 	<p>1x M25</p>	<p>19 40 703 0951</p>	
<p>Han® HPR, Surface mounted housing, Angled, Bottom closed, Long version, Bottom closed, Tapped blind hole for fixing screws, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653 Pack contents: With seal screw</p> 	<p>1x M25</p>	<p>19 40 703 0953</p>	
<p>Han® HPR, Protection cover, for hoods, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		<p>09 40 703 5413</p>	
<p>Han® HPR, Protection cover, for hoods, With fixing cord, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		<p>09 40 703 5414</p>	

Housings


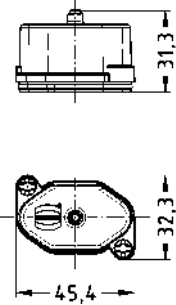

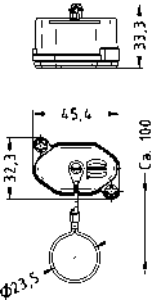

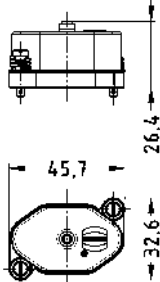

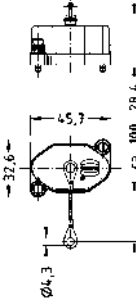
Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Protection cover, for bulkhead mounted housings, for surface mounted housings, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		09 40 703 5411	
<p>Han® HPR, Protection cover, for bulkhead mounted housings, for surface mounted housings, With fixing cord, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		09 40 703 5412	
<p>Han® HPR, Adapter, Open bottom, for assembly of bulkhead mounted bulkhead mounted position, Top entry, IP65, IP68</p> 	1x M20	19 40 703 0900	
<p>Han® HPR, Adapter, Open bottom, for assembly of bulkhead mounted bulkhead mounted position, IP65, IP68</p> 		09 40 703 0902	



Hoods/housings for harsh outdoor environments  
Toggle locking

Housings

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Hood, Top entry, IP65, IP68</p> <p>Pack contents: With seal screw</p> 	<p>1x M20 1x M25</p>	<p>19 40 003 0400 19 40 003 0401</p>	 <p>① Seal screw</p>
<p>Han® HPR, Bulkhead mounted housing, Straight, IP65, IP68</p> <p>Pack contents: With seal screw</p> 		<p>09 40 003 0301</p>	 <p>① Seal screw</p>


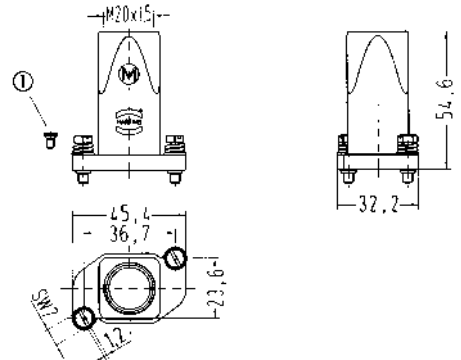
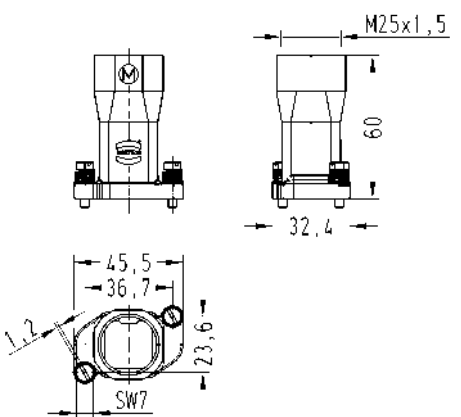

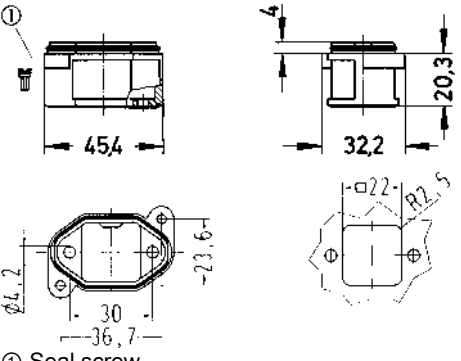
Housings

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Protection cover, for hoods, IP65, IP68</p> 		09 40 003 5403	
<p>Han® HPR, Protection cover, for hoods, With fixing cord, IP65, IP68</p> 		09 40 003 5404	
<p>Han® HPR, Protection cover, for bulkhead mounted housings, for surface mounted housings, IP65, IP68</p> 		09 40 003 5401	
<p>Han® HPR, Protection cover, for bulkhead mounted housings, for surface mounted housings, With fixing cord, IP65, IP68</p> 		09 40 003 5402	


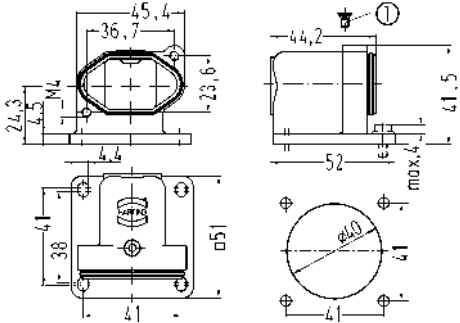

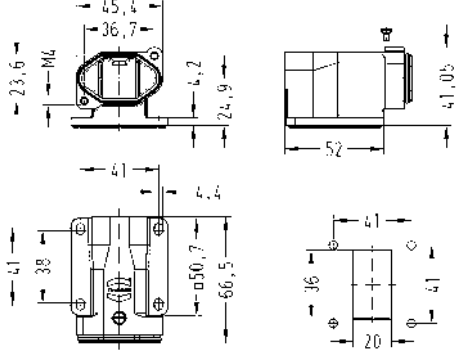

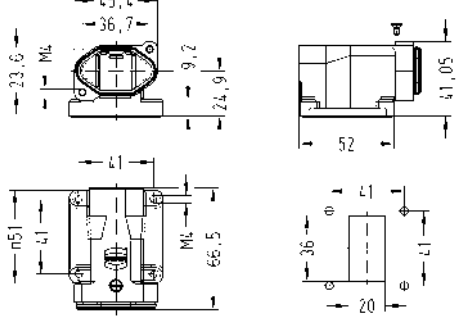

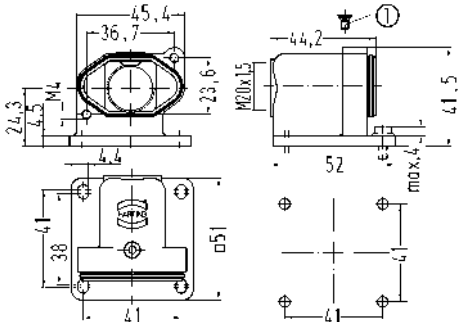
Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Adapter, Open bottom, for assembly of bulkhead mounted bulk- head mounted position, Top entry, IP65, IP68</p> 	<p>1x M20</p>	<p>19 40 003 0900</p>	
<p>Han® HPR, Adapter, Open bottom, for assembly of bulkhead mounted bulk- head mounted position, IP65, IP68</p> 		<p>09 40 003 0902</p>	

Hoods/housings for harsh outdoor environments  
Screw locking


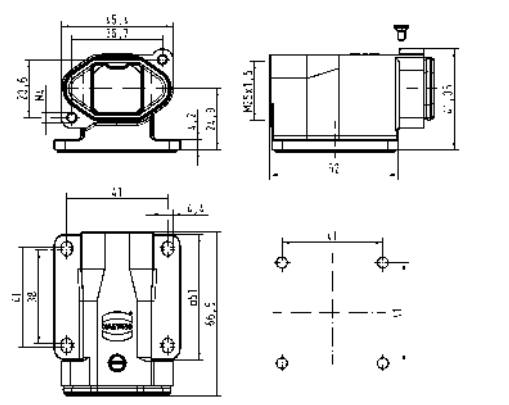

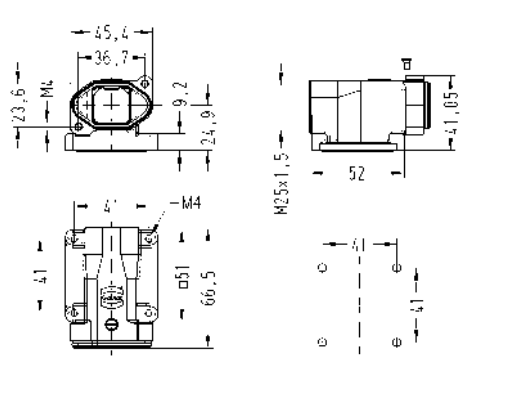

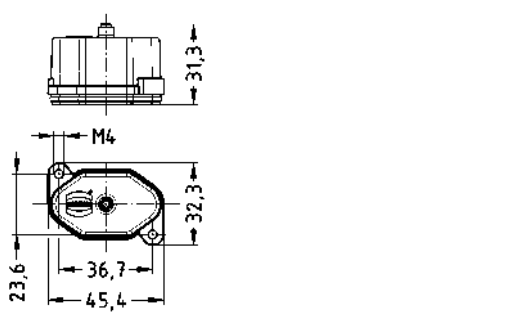

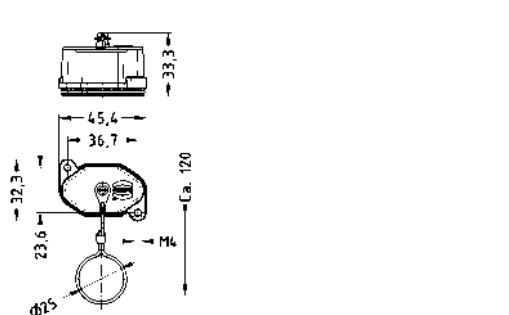
Housings


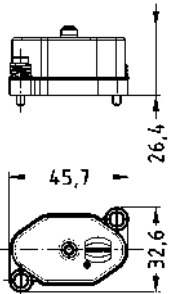

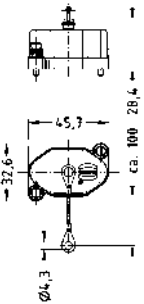

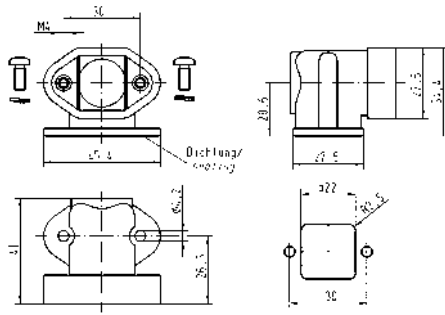

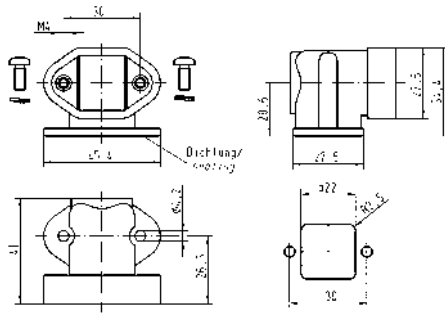
Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Hood, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> <p>Pack contents: With seal screw</p> 	<p>1x M20 1x M25</p>	<p>19 40 003 0410 19 40 003 0411</p>	 <p>① Seal screw</p> 
<p>Han® HPR, Bulkhead mounted housing, Straight, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> <p>Pack contents: With seal screw</p> 		<p>09 40 003 0311</p>	 <p>① Seal screw</p>



Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Bulkhead mounted housing, Angled, Open bottom, Feed through hole for fixing screws, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> <p>Pack contents: With seal screw</p> 		09 40 003 0950	 <p>① Seal screw</p>
<p>Han® HPR, Bulkhead mounted housing, Angled, Long version, Open bottom, Feed through hole for fixing screws, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> <p>Pack contents: With seal screw</p> 		09 40 003 0951	
<p>Han® HPR, Bulkhead mounted housing, Angled, Long version, Open bottom, Tapped blind hole for fixing screws, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> <p>Pack contents: With seal screw</p> 		09 40 003 0953	
<p>Han® HPR, Surface mounted housing, Bottom closed, Feed through hole for fixing screws, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> <p>Pack contents: With seal screw</p> 	1x M20	19 40 003 0950	 <p>① Seal screw</p>

Housings

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Surface mounted housing, Long version, Bottom closed, Feed through hole for fixing screws, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> <p>Pack contents: With seal screw</p> 	<p>1x M25</p>	<p>19 40 003 0951</p>	
<p>Han® HPR, Surface mounted housing, Long version, Bottom closed, Tapped blind hole for fixing screws, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> <p>Pack contents: With seal screw</p> 	<p>1x M25</p>	<p>19 40 003 0953</p>	
<p>Han® HPR, Protection cover, for hoods, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		<p>09 40 003 5413</p>	
<p>Han® HPR, Protection cover, for hoods, With fixing cord, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		<p>09 40 003 5414</p>	

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Protection cover, for bulkhead mounted housings, for surface mounted housings, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		<p>09 40 003 5411</p>	
<p>Han® HPR, Protection cover, for bulkhead mounted housings, for surface mounted housings, With fixing cord, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		<p>09 40 003 5412</p>	
<p>Han® HPR, Adapter, Open bottom, for assembly of bulkhead mounted bulkhead mounted position, Top entry, IP65, IP68</p> 	<p>1x M20</p>	<p>19 40 003 0900</p>	
<p>Han® HPR, Adapter, Open bottom, for assembly of bulkhead mounted bulkhead mounted position, IP65, IP68</p> 		<p>09 40 003 0902</p>	

## Features

- Hoods/housings for harsh outdoor environments
- Metal hoods and housings with excellent corrosion resistance
- Corrosion resistance ASTM B117-09 (500 h)
- Excellent EMC characteristics
- Screw locking M6
- Field of application: for external electrical interconnections in vehicles, in highly demanding environments and wet areas, as well as for sensitive interconnections that have to be shielded
- Distinguishing feature: colour-coded black, internal seal
- Option of connecting a cable for a functional earth externally
- Large space for cables

## Technical characteristics


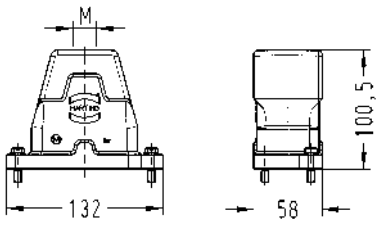

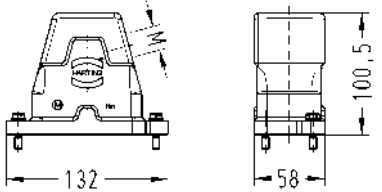

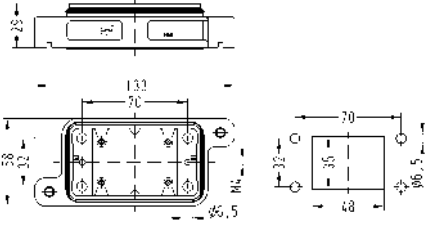

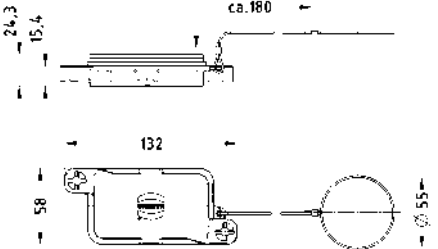
Limiting temperature	-40 ... +125 °C
Tightening torque (screw locking)	4 Nm
Degree of protection acc. to IEC 60529	IP65, IP68, IP69 / IPX9K acc. to ISO 20653, IP66
Type rating acc. to UL 50 / UL 50E	4, 4X, 12
Material (hood/housing)	Aluminium die-cast, Corrosion resistant
Surface (hood/housing)	Powder-coated
Colour (hood/housing)	RAL 9005 (jet black)
Material (seal)	NBR
Material (locking)	Stainless steel
RoHS	compliant, compliant with exemption

## Specifications and approvals


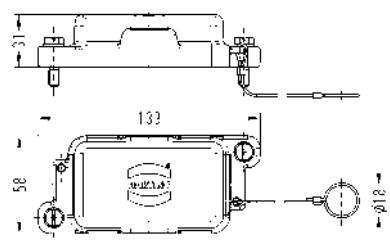
UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL







Hoods/housings for harsh outdoor environments  
Toggle locking

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Hood, Top entry, IP65, IP68</p> 	<p>1x M25</p>	<p>19 40 006 0401</p>	
<p>Han® HPR, Hood, Side entry, IP65, IP68</p> 	<p>1x M25</p>	<p>19 40 006 0501</p>	
<p>Han® HPR, Bulkhead mounted housing, IP65, IP68</p> 		<p>09 40 006 0301</p>	
<p>Han® HPR, Protection cover, for hoods, IP65, IP68</p> 		<p>09 40 006 5404</p>	


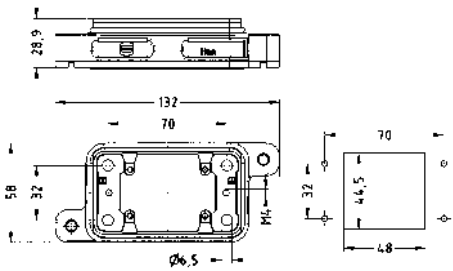

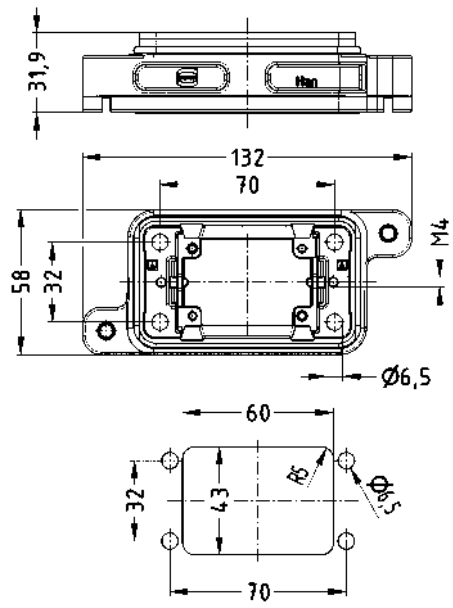

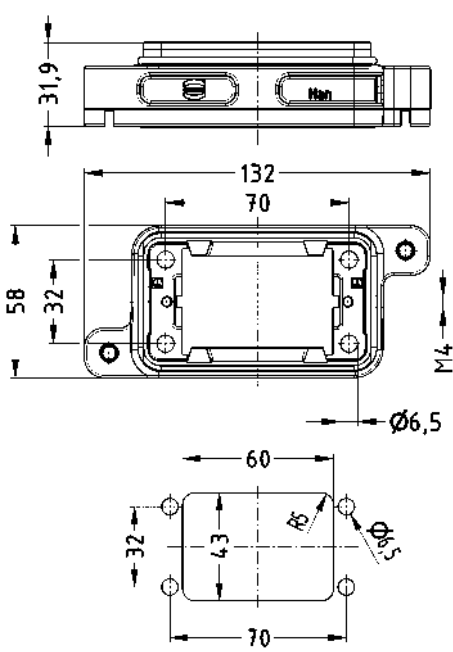
Housings

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Protection cover, for bulkhead mounted housings, for surface mounted housings, IP65, IP68</p> 		<p>09 40 006 5401</p>	


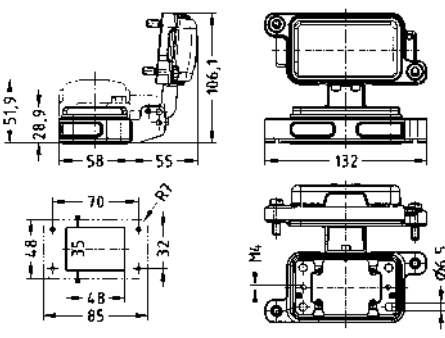

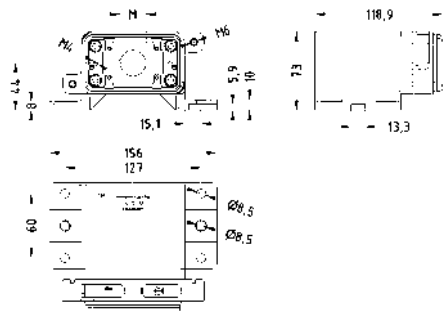

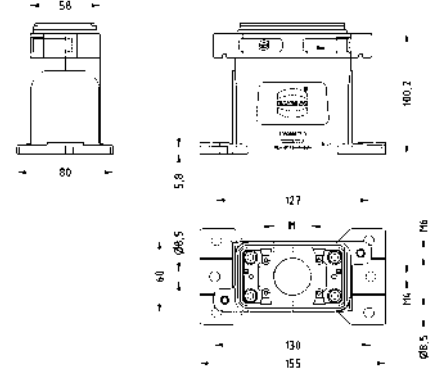
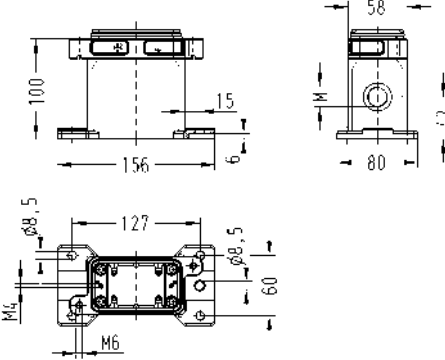
Hoods/housings for harsh outdoor environments  
Screw locking

Identification	Cable entry	Part number	Drawing (dimensions in mm)	
Han® HPR, Hood, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653  	1x M20 1x M25 1x M32 1x M40	19 40 006 0410 19 40 006 0411 19 40 006 0412 19 40 006 0413		
Han® HPR, Hood, With adapter, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653  	1x M40	19 40 006 0418		
Han® HPR, Hood, Side entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653  	1x M20 1x M25 1x M32 1x M40	19 40 006 0510 19 40 006 0511 19 40 006 0512 19 40 006 0513		
Han® HPR, Hood, Without cable entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653  		09 40 006 0811		



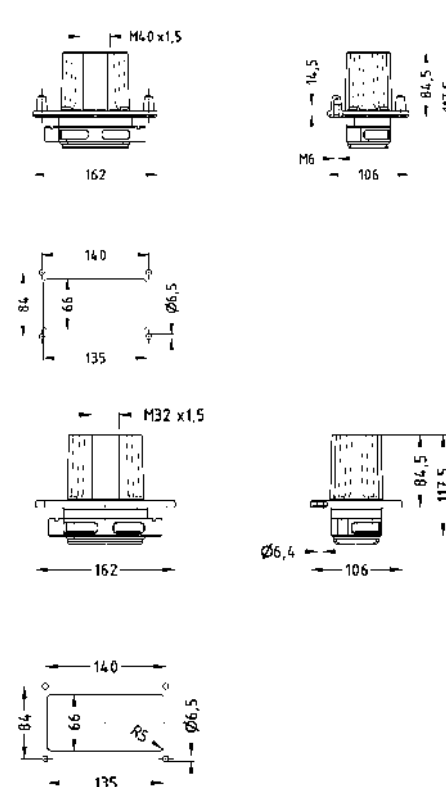


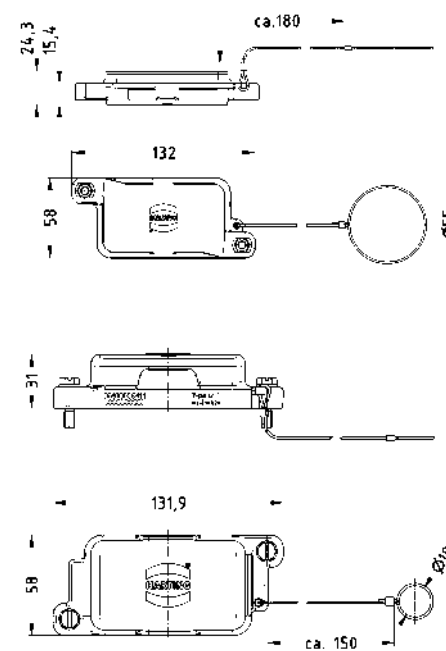
Housings

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Bulkhead mounted housing, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		09 40 006 0311	
<p>Han® HPR, Bulkhead mounted housing, Rear mounting, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> <p>Pack contents: Mounting frame is included within the delivery</p> 		09 40 006 0391	 <p>Panel cut out</p>
<p>Han® HPR, Bulkhead mounted housing, Rear mounting, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> <p>Pack contents: Please order mounting frame separately.</p> 		09 40 006 0392	 <p>Panel cut out</p>


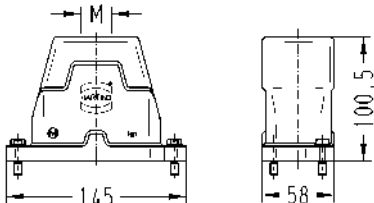

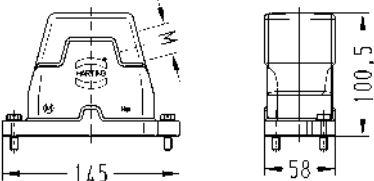

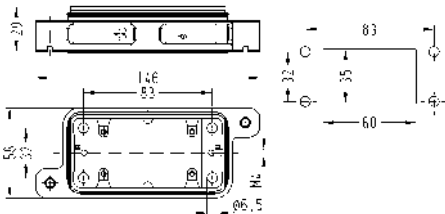

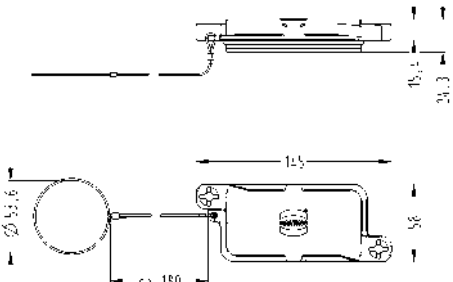


Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Bulkhead mounted housing, With metal cover, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		09 40 006 0317	
<p>Han® HPR, Surface mounted housing, Horizontal version, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	1x M25 1x M40	19 40 006 0911 19 40 006 0913	
<p>Han® HPR, Surface mounted housing, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	1x M32 1x M40	19 40 006 1212 19 40 006 1213	
<p>Han® HPR, Surface mounted housing, Side entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p>	1x M20 1x M25 1x M32 2x M25	19 40 006 1260 19 40 006 1261 19 40 006 1262 19 40 006 1271	


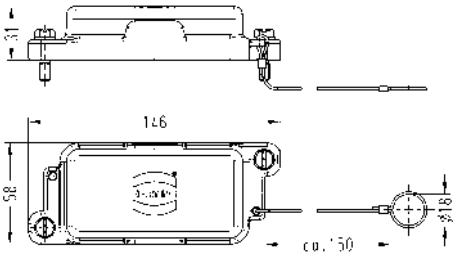
Housings

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Panel feed through housing, for mounting from inside, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p>  <p>Han® HPR, Panel feed through housing, for mounting from outside, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p>  <p>The fixing screws must be sealed separately to reach the given degree of protection.</p>	<p>1x M32 1x M40</p> <p>1x M32 1x M40</p>	<p>19 40 006 1112 19 40 006 1113</p> <p>19 40 006 1117 19 40 006 1118</p>	
<p>Han® HPR, Protection cover, for hoods, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p>  <p>Han® HPR, Protection cover, for bulkhead mounted housings, for surface mounted housings, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		<p>09 40 006 5414</p> <p>09 40 006 5411</p>	


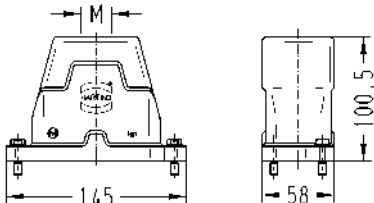

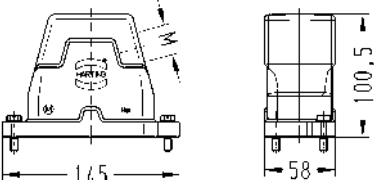

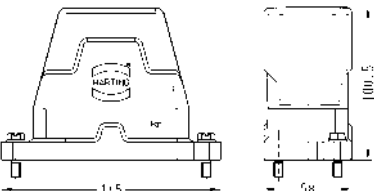

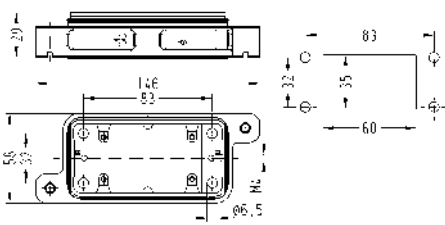
Hoods/housings for harsh outdoor environments  
Toggle locking

Identification	Cable entry	Part number	Drawing (dimensions in mm)
Han® HPR, Hood, Top entry, IP65, IP68  	1x M25	19 40 010 0401	
Han® HPR, Hood, Side entry, IP65, IP68  	1x M25	19 40 010 0501	
Han® HPR, Bulkhead mounted housing, IP65, IP68  		09 40 010 0301	
Han® HPR, Protection cover, for hoods, IP65, IP68  		09 40 010 5404	

Housings

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Protection cover, for bulkhead mounted housings, for surface mounted housings, IP65, IP68</p> 		<p>09 40 010 5401</p>	

Hoods/housings for harsh outdoor environments  
Screw locking

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Hood, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>1x M25 1x M32 1x M40 2x M20</p>	<p>19 40 010 0411 19 40 010 0412 19 40 010 0413 19 40 010 0430</p>	
<p>Han® HPR, Hood, Side entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>1x M25 1x M32 1x M40</p>	<p>19 40 010 0511 19 40 010 0512 19 40 010 0513</p>	
<p>Han® HPR, Hood, Without cable entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		<p>09 40 010 0811</p>	
<p>Han® HPR, Bulkhead mounted housing, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		<p>09 40 010 0311</p>	

Housings

Identification

Cable entry

Part number

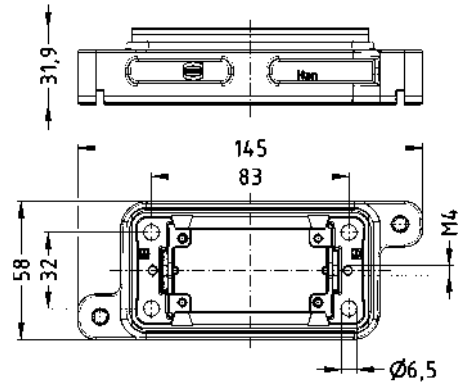
Drawing  
(dimensions in mm)

Han® HPR,  
Bulkhead mounted housing,  
Rear mounting,  
IP65,  
IP68,  
IP69 / IPX9K acc. to ISO 20653

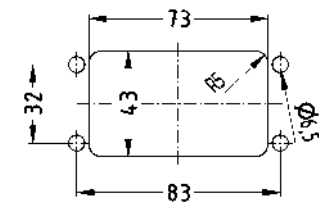
Pack contents:  
Mounting frame is included within the  
delivery



09 40 010 0391



Panel cut out

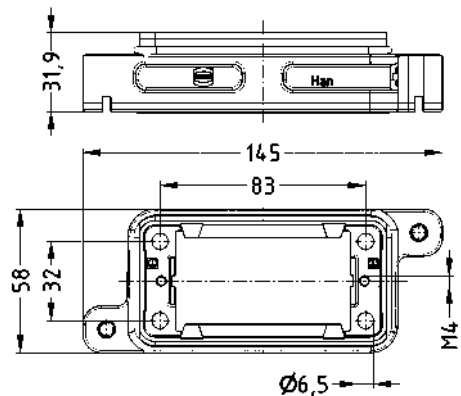


Han® HPR,  
Bulkhead mounted housing,  
Rear mounting,  
IP65,  
IP68,  
IP69 / IPX9K acc. to ISO 20653

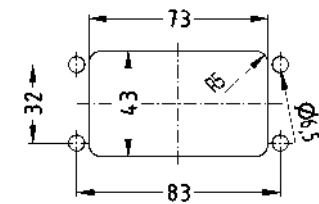
Pack contents:  
Please order mounting frame separately.



09 40 010 0392



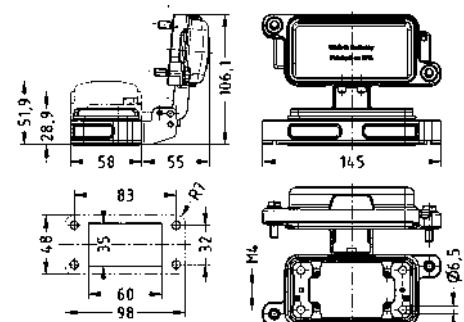
Panel cut out


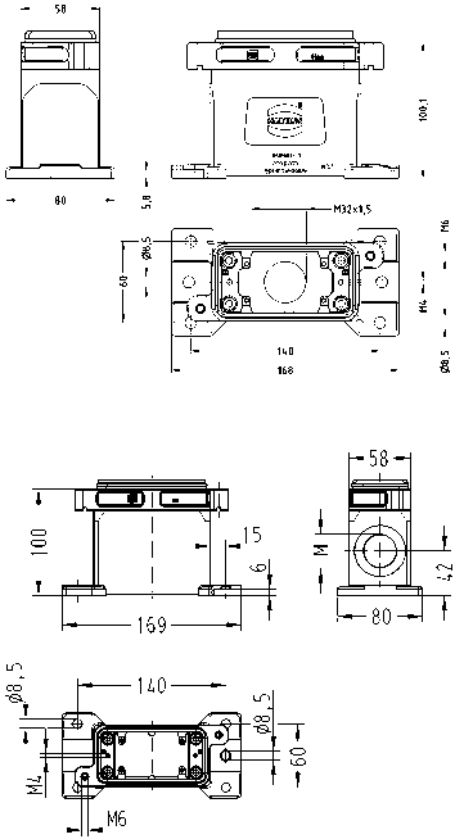

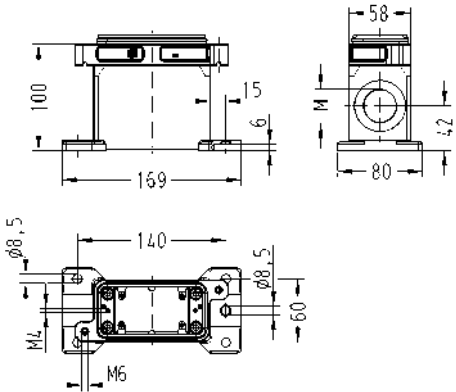

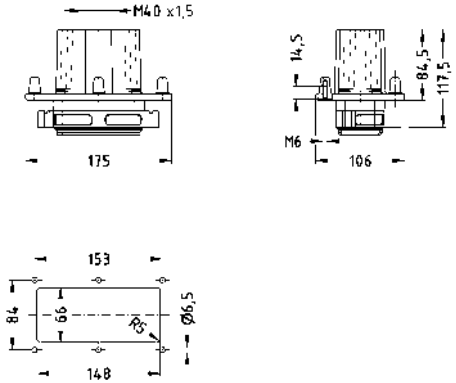


Han® HPR,  
Bulkhead mounted housing,  
With metal cover,  
IP65,  
IP68,  
IP69 / IPX9K acc. to ISO 20653






09 40 010 0317




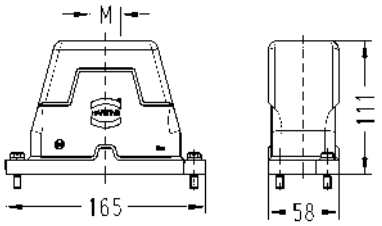

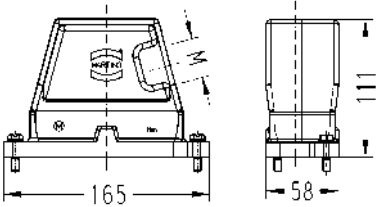

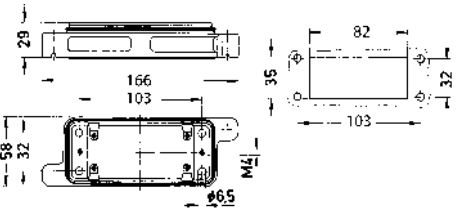

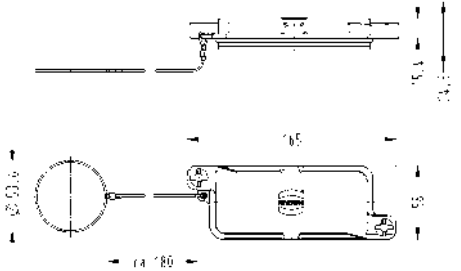
Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Surface mounted housing, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>1x M32</p>	<p>19 40 010 1212</p>	
<p>Han® HPR, Surface mounted housing, Side entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>1x M20 1x M32 1x M40 2x M25 2x M32</p>	<p>19 40 010 1260 19 40 010 1262 19 40 010 1263 19 40 010 1271 19 40 010 1272</p>	
<p>Han® HPR, Panel feed through housing, for mounting from inside, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>1x M40</p>	<p>19 40 010 1113</p>	

Housings


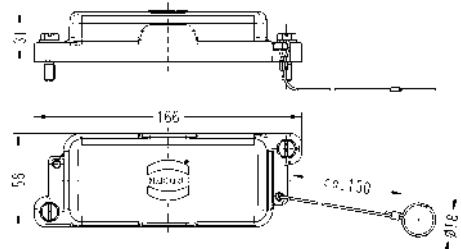
Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Panel feed through housing, for mounting from outside, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p>  <p>The fixing screws must be sealed separately to reach the given degree of protection.</p>	<p>1x M40</p>	<p>19 40 010 1118</p>	
<p>Han® HPR, Protection cover, for hoods, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p>  <p>Han® HPR, Protection cover, for bulkhead mounted housings, for surface mounted housings, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		<p>09 40 010 5414</p> <p>09 40 010 5411</p>	




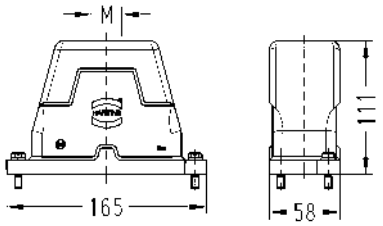

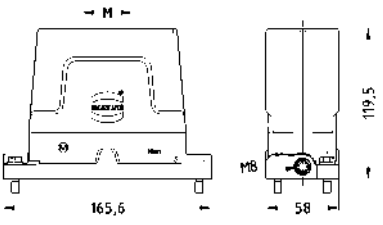

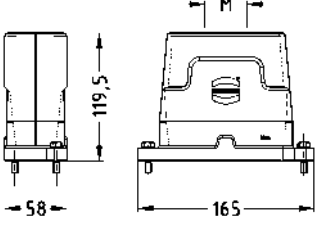

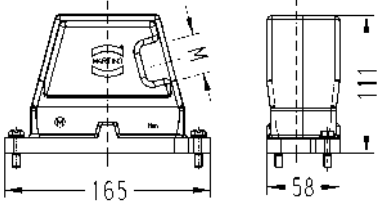
Hoods/housings for harsh outdoor environments  
Toggle locking

Identification	Cable entry	Part number	Drawing (dimensions in mm)
Han® HPR, Hood, Top entry, IP65, IP68  	1x M32	19 40 016 0402	
Han® HPR, Hood, Side entry, IP65, IP68  	1x M32	19 40 016 0502	
Han® HPR, Bulkhead mounted housing, IP65, IP68  		09 40 016 0301	
Han® HPR, Protection cover, for hoods, IP65, IP68  		09 40 016 5404	


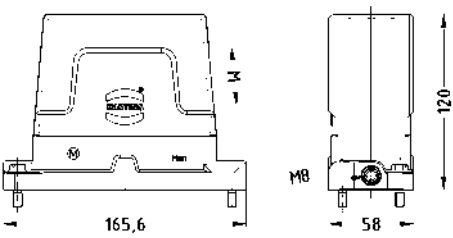

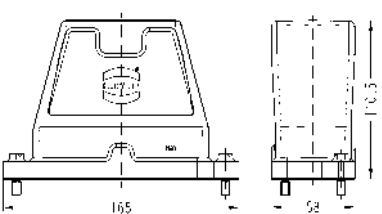

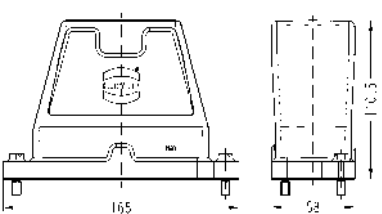

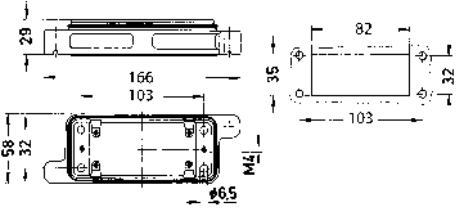

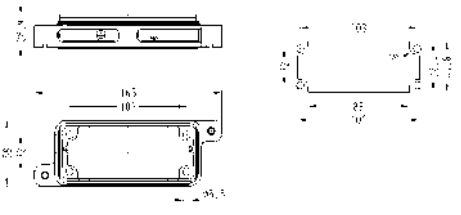
Housings


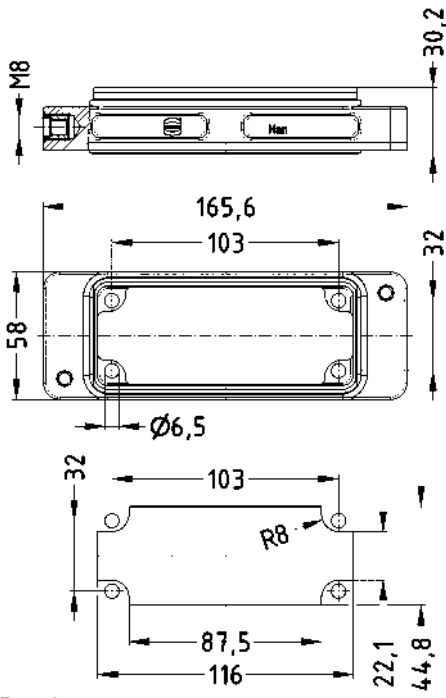

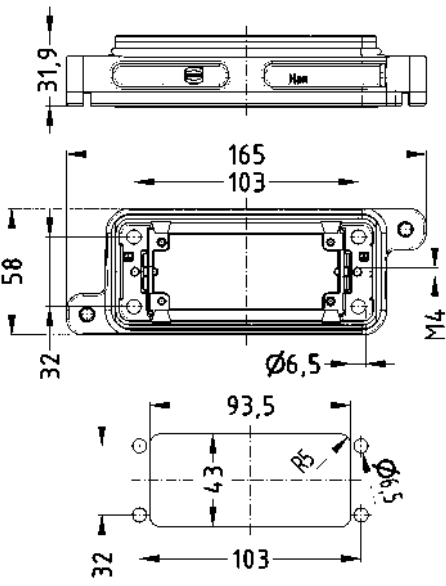
Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Protection cover, for bulkhead mounted housings, for surface mounted housings, IP65, IP68</p> 		<p>09 40 016 5401</p>	

Hoods/housings for harsh outdoor environments  
Screw locking


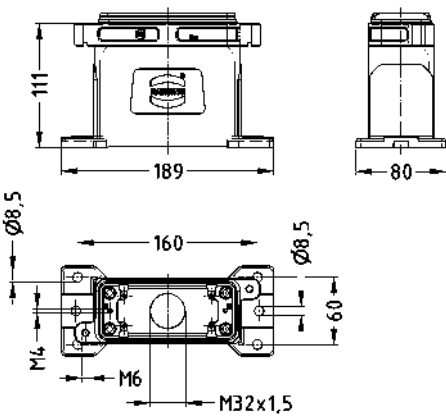

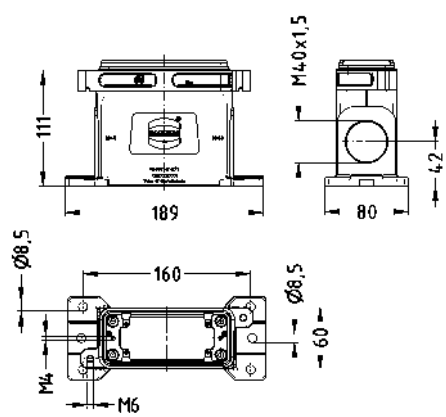

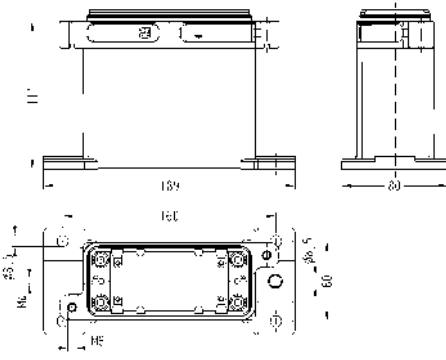
Identification	Cable entry	Part number	Drawing (dimensions in mm)
Han® HPR, Hood, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653  	1x M25 1x M32 1x M40 1x M50 2x M25	19 40 016 0411 19 40 016 0412 19 40 016 0413 19 40 016 0414 19 40 016 0431	
Han® HPR, Hood, Enlarged, with functional earth, Top entry, IP66, IP68, IP69 / IPX9K acc. to ISO 20653  	1x M32 1x M40	19 40 016 0442 19 40 016 0443	
Han® HPR, Hood, Enlarged, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653  	1x M40 1x M50 2x M40 3x M25 4x M25	19 40 016 0468 19 40 016 0469 19 40 016 0471 19 40 016 0477 19 40 016 0478	
Han® HPR, Hood, Side entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653  	1x M20 1x M25 1x M32 1x M40 1x M50	19 40 016 0510 19 40 016 0511 19 40 016 0512 19 40 016 0513 19 40 016 0514	

Housings


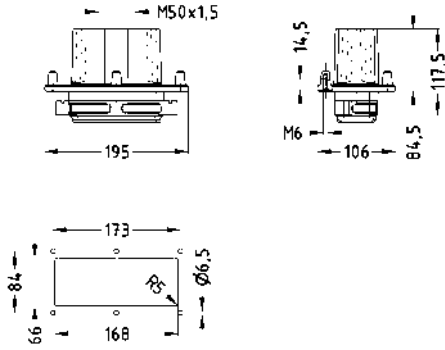

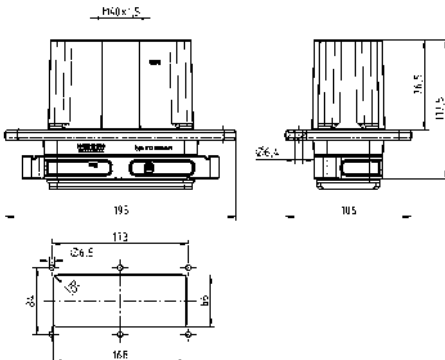
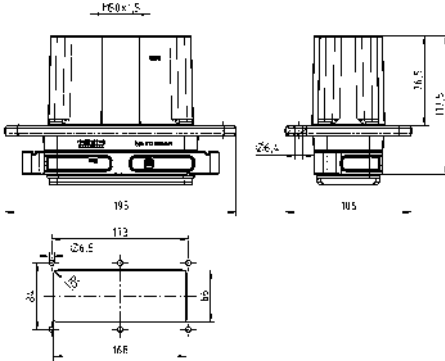

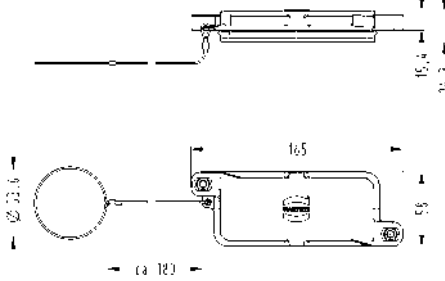
Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Hood, Enlarged, with functional earth, Side entry, IP66, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>1x M32 1x M40</p>	<p>19 40 016 0552 19 40 016 0553</p>	
<p>Han® HPR, Hood, Enlarged, Side entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>1x M40 1x M50</p>	<p>19 40 016 0568 19 40 016 0569</p>	
<p>Han® HPR, Hood, Without cable entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		<p>09 40 016 0811</p>	
<p>Han® HPR, Bulkhead mounted housing, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		<p>09 40 016 0311</p>	
<p>Han® HPR, Bulkhead mounted housing, Enlarged, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		<p>09 40 016 0368</p>	

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Bulkhead mounted housing, Enlarged, with functional earth, IP66, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		<p>09 40 016 0371</p>	 <p>Panel cut out</p>
<p>Han® HPR, Bulkhead mounted housing, Rear mounting, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> <p>Pack contents: Mounting frame is included within the delivery</p> 		<p>09 40 016 0391</p>	 <p>Panel cut out</p>


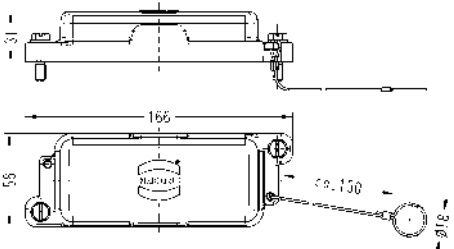


Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Surface mounted housing, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>1x M32 2x M32</p>	<p>19 40 016 1223 19 40 016 1222</p>	
<p>Han® HPR, Surface mounted housing, Side entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>1x M20, 1x M25 1x M25 1x M32 1x M40 2x M40</p>	<p>19 40 016 1225 19 40 016 1261 19 40 016 1262 19 40 016 1263 19 40 016 1273</p>	
<p>Han® HPR, Surface mounted housing, Without cable entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		<p>09 40 016 1201</p>	

Housings

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Panel feed through housing, for mounting from inside, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>1x M40 1x M50</p>	<p>19 40 016 1113 19 40 016 1114</p>	
<p>Han® HPR, Panel feed through housing, for mounting from outside, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p>  <p>The fixing screws must be sealed separately to reach the given degree of protection.</p>	<p>1x M40 1x M50 2x M25</p>	<p>19 40 016 1118 19 40 016 1119 19 40 016 1134</p>	 
<p>Han® HPR, Protection cover, for hoods, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		<p>09 40 016 5414</p>	


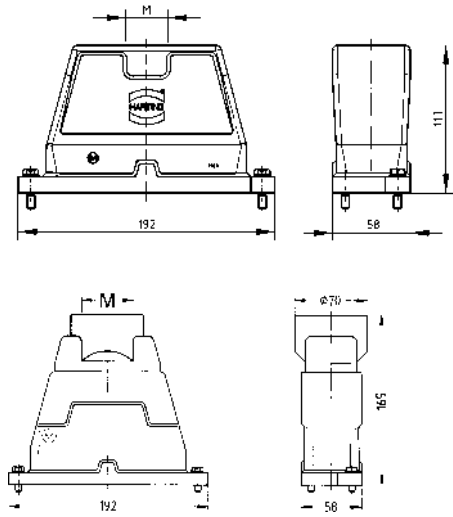

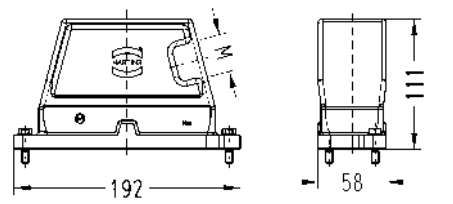

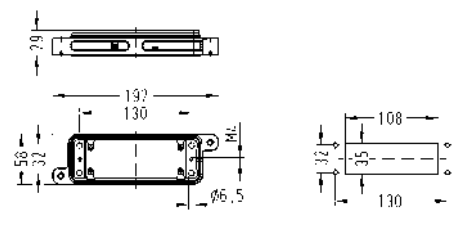

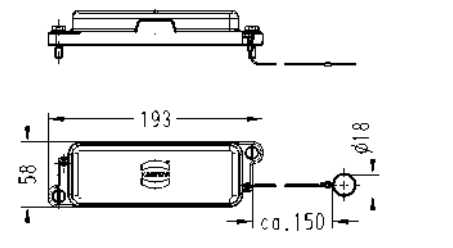



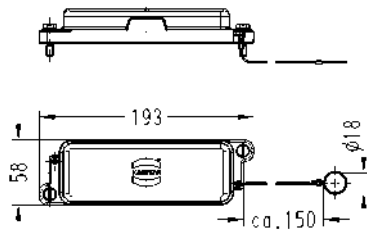
Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Protection cover, for bulkhead mounted housings, for surface mounted housings, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		<p>09 40 016 5411</p>	

Housings

Hoods/housings for harsh outdoor environments  
Toggle locking

Housings


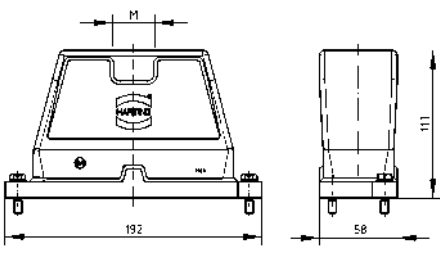

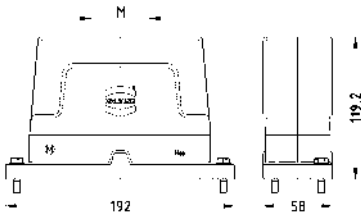

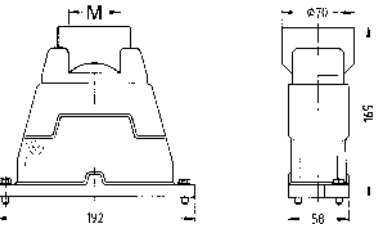

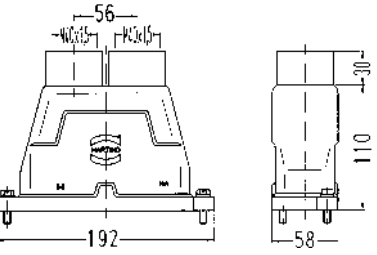
Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Hood, Top entry, IP65, IP68</p> 	<p>1x M32 1x M63</p>	<p>19 40 024 0402 19 40 024 0410</p>	
<p>Han® HPR, Hood, Side entry, IP65, IP68</p> 	<p>1x M40</p>	<p>19 40 024 0503</p>	
<p>Han® HPR, Bulkhead mounted housing, IP65, IP68</p> 		<p>09 40 024 0301</p>	
<p>Han® HPR, Protection cover, for hoods, IP65, IP68</p> 		<p>09 40 024 5404</p>	


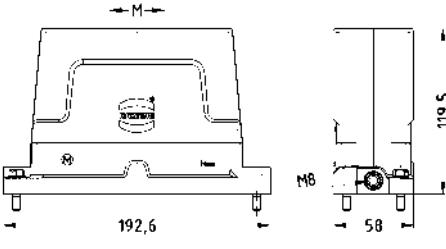

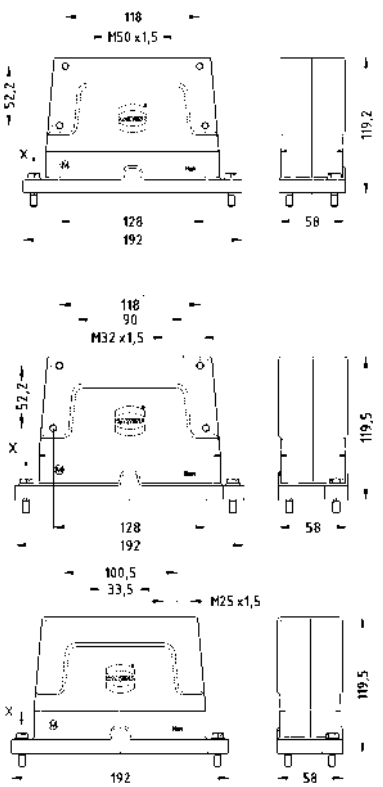

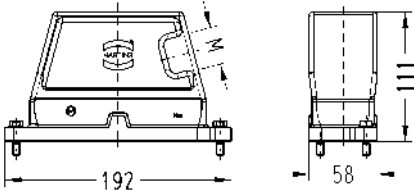
Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Protection cover, for bulkhead mounted housings, for surface mounted housings, IP65, IP68</p> 		<p>09 40 024 5401</p>	

Housings


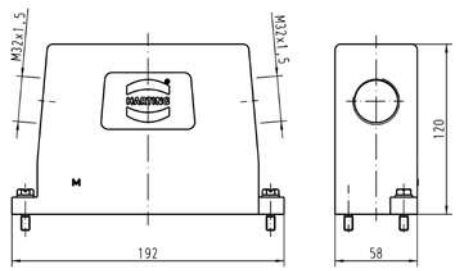

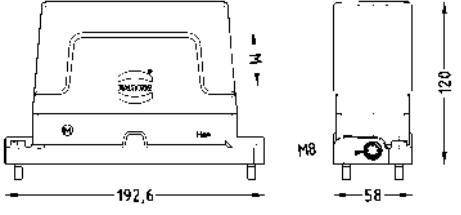


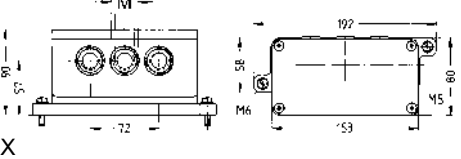

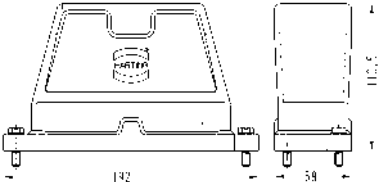
Hoods/housings for harsh outdoor environments  
Screw locking


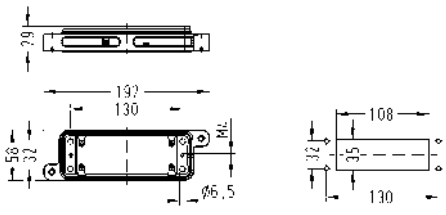

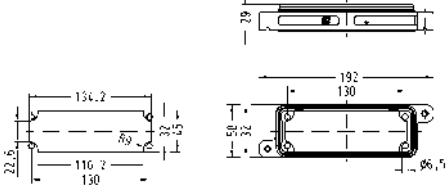

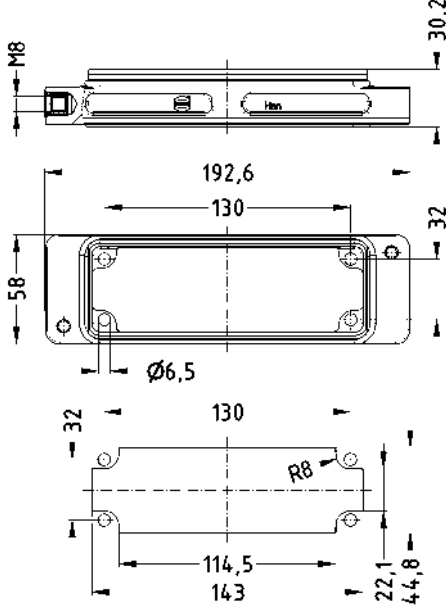
Housings

Identification	Cable entry	Part number	Drawing (dimensions in mm)
Han® HPR, Hood, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653  	1x M32 1x M40 1x M50 2x M25 2x M32 2x M40 3x M25 3x M25, 1x M20 4x M20 4x M25	19 40 024 0412 19 40 024 0413 19 40 024 0414 19 40 024 0431 19 40 024 0432 19 40 024 0433 19 40 024 0461 19 40 024 0471 19 40 024 0473 19 40 024 0474	
Han® HPR, Hood, Top entry, High construction, IP65, IP68, IP69 / IPX9K acc. to ISO 20653  	1x M50 3x M32 4x M25	19 40 024 0419 19 40 024 0467 19 40 024 0477	
Han® HPR, Hood, Special type, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653  	1x M63	19 40 024 0420	
Han® HPR, Hood, With adapter, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653  	2x M40	19 40 024 0438	

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Hood, Enlarged, with functional earth, Top entry, IP66, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>1x M32 1x M40</p>	<p>19 40 024 0442 19 40 024 0443</p>	
<p>Han® HPR, Hood, Enlarged, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>1x M50 3x M32 4x M25</p>	<p>19 40 024 0469 19 40 024 0468 19 40 024 0478</p>	
<p>Han® HPR, Hood, Side entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>1x M32 1x M40 1x M50</p>	<p>19 40 024 0512 19 40 024 0513 19 40 024 0514</p>	

Housings

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Hood, Side entry, High construction, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>2x M32</p>	<p>19 40 024 0537</p>	
<p>Han® HPR, Hood, Enlarged, with functional earth, Side entry, IP66, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>1x M32 1x M40</p>	<p>19 40 024 0552 19 40 024 0553</p>	
<p>Han® HPR, Hood, Enlarged, Side entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>1x M40 1x M50</p>	<p>19 40 024 0568 19 40 024 0569</p>	
<p>Han® HPR, Hood, Special type, Angled entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>3x M25</p>	<p>19 40 024 0631</p>	
<p>Han® HPR, Hood, Without cable entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		<p>09 40 024 0811</p>	

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Bulkhead mounted housing, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		09 40 024 0311	
<p>Han® HPR, Bulkhead mounted housing, Enlarged, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		09 40 024 0368	
<p>Han® HPR, Bulkhead mounted housing, Enlarged, with functional earth, IP66, IP68, IP69 / IPX9K acc. to ISO 20653</p> 		09 40 024 0371	 <p>Panel cut out</p>

Housings

Identification

Cable entry

Part number

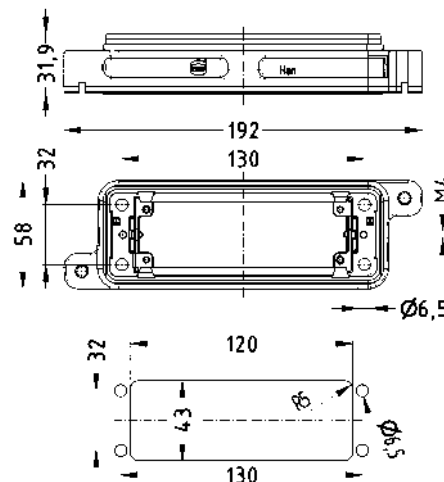
Drawing  
(dimensions in mm)

Han® HPR,  
Bulkhead mounted housing,  
Rear mounting,  
IP65,  
IP68,  
IP69 / IPX9K acc. to ISO 20653

Pack contents:  
Mounting frame is included within the delivery



09 40 024 0391



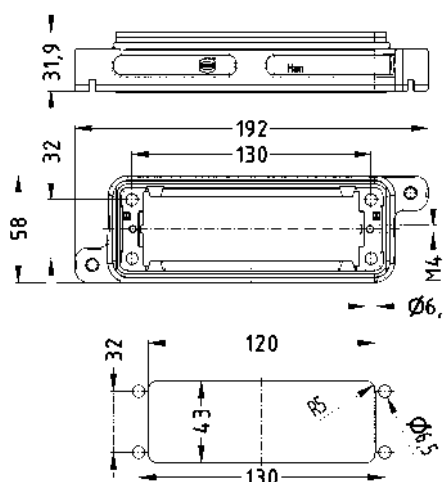
Panel cut out

Han® HPR,  
Bulkhead mounted housing,  
Rear mounting,  
IP65,  
IP68,  
IP69 / IPX9K acc. to ISO 20653

Pack contents:  
Please order mounting frame separately.



09 40 024 0392

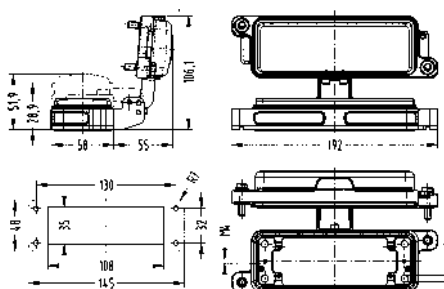


Panel cut out


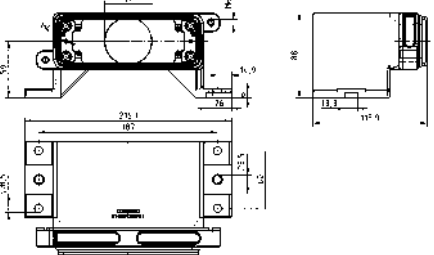

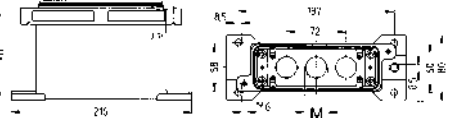

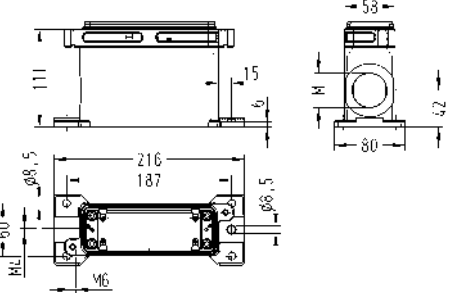

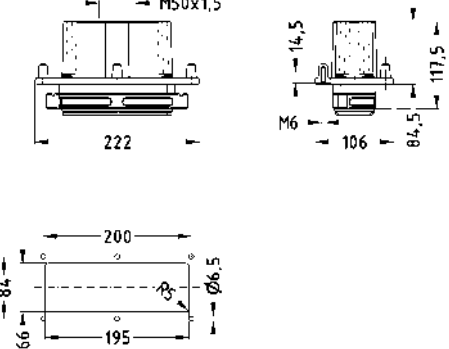
Han® HPR,  
Bulkhead mounted housing,  
With metal cover,  
IP65,  
IP68,  
IP69 / IPX9K acc. to ISO 20653



09 40 024 0317





Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han® HPR, Surface mounted housing, Horizontal version, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>1x M50 2x M32 3x M25 3x M25, 1x M20 4x M25</p>	<p>19 40 024 0914 19 40 024 0925 19 40 024 0931 19 40 024 0971 19 40 024 0941</p>	
<p>Han® HPR, Surface mounted housing, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>3x M25 3x M25, 1x M20 4x M25</p>	<p>19 40 024 1231 19 40 024 1271 19 40 024 1242</p>	
<p>Han® HPR, Surface mounted housing, Side entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>1x M40 2x M40 2x M50</p>	<p>19 40 024 1263 19 40 024 1273 19 40 024 1274</p>	
<p>Han® HPR, Panel feed through housing, for mounting from inside, Top entry, IP65, IP68, IP69 / IPX9K acc. to ISO 20653</p> 	<p>1x M40 1x M50</p>	<p>19 40 024 1113 19 40 024 1114</p>	



## Features

- Hoods/housings for harsh environments
- Extremely resistant to chemicals and other aggressive influences
- Made completely from high-quality stainless steel
- Extremely resistant to corrosion

## Technical characteristics

Limiting temperature	-40 ... +125 °C, -40 ... +200 °C With Han® High Temp components
Degree of protection acc. to IEC 60529	IP65, IP67
Type rating acc. to UL 50 / UL 50E	4, 4X, 12
Material (hood/housing)	Stainless steel
Surface (hood/housing)	Uncoated
Colour (hood/housing)	Unpainted
Material (seal)	NBR, FPM
Material (locking)	Stainless steel
RoHS	compliant


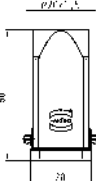

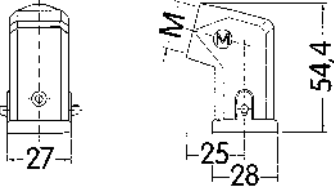

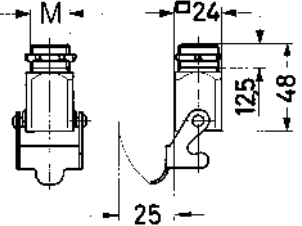
## Specifications and approvals


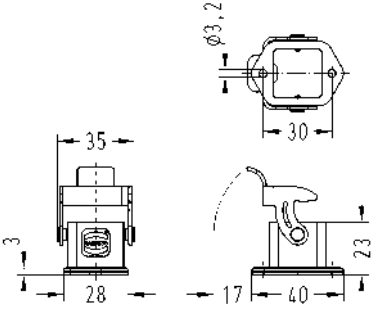

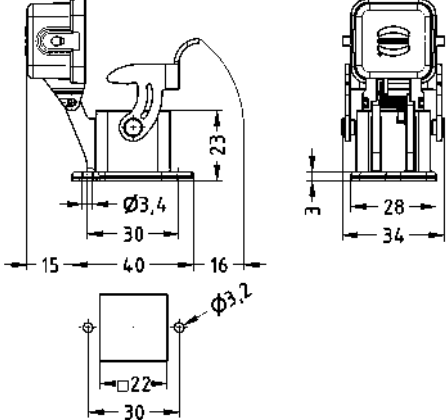


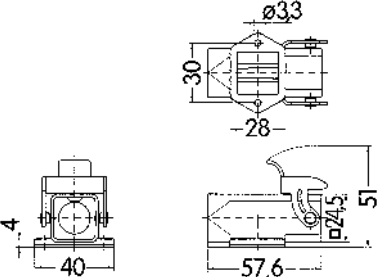
UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 DNV GL




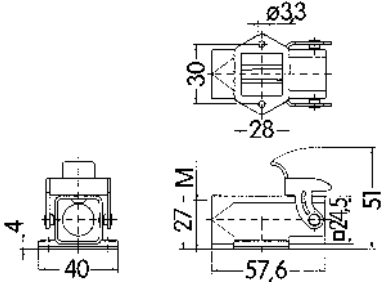

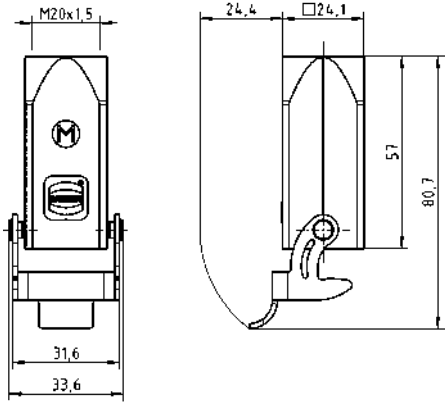

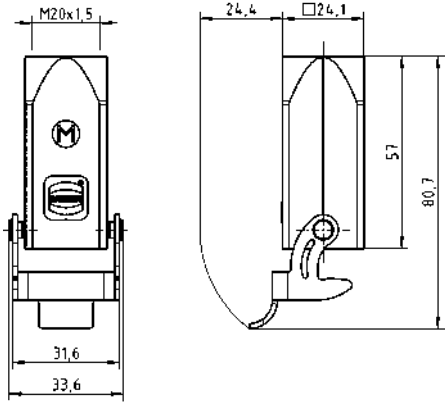

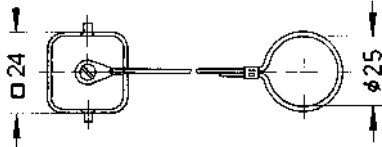
Hoods/housings for harsh environments  
Single locking lever


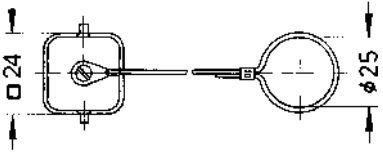

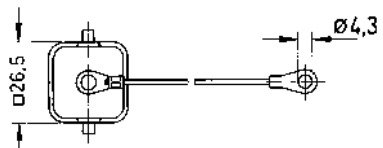

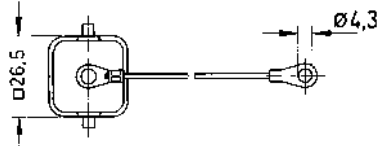
Housings

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han-INOX®, Han® High Temp, Hood, Top entry, IP65, IP67</p> <p>Pack contents: With seal screw</p> 	<p>1x M20</p>	<p>19 44 003 1440</p>	
<p>Han-INOX®, Hood, Side entry, IP65, IP67</p> <p>Pack contents: With seal screw</p> 	<p>1x M20</p>	<p>19 44 003 1640</p>	
<p>Han-INOX®, Screw mounted housing, Top entry, IP65, IP67</p> <p>Pack contents: With seal screw, 1x M20 stainless steel screw nut</p> 	<p>1x M20</p>	<p>19 44 003 1150</p>	

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han-INOX®, Han® High Temp, Bulkhead mounted housing, Straight, IP65, IP67</p> <p>Pack contents: With seal screw</p> 		<p>19 44 003 0301</p>	 <p>Panel cut out 22 x 22 mm</p>
<p>Han-INOX®, Bulkhead mounted housing, Straight, With metal cover, IP65, IP67</p> <p>Pack contents: With seal screw</p>  <p>for mounted male insert</p>		<p>19 44 003 0305</p>	 <p>Panel cut out 22 x 22 mm</p>
<p>Han-INOX®, Bulkhead mounted housing, Straight, With metal cover, With seal, IP65, IP67</p> <p>Pack contents: With seal screw</p>  <p>for mounted female insert or for mounted Han-Brid® insert</p>		<p>19 44 003 0306</p>	
<p>Han-INOX®, Bulkhead mounted housing, Angled, IP65, IP67</p> <p>Pack contents: With seal screw</p> 		<p>19 44 003 0801</p>	 <p>Panel cut out 22 x 22 mm</p>


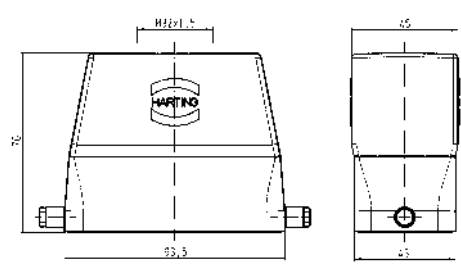

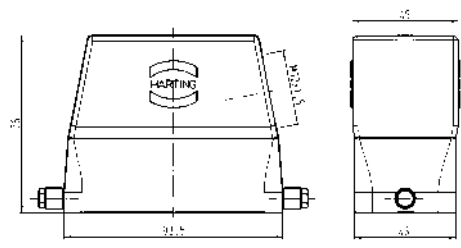

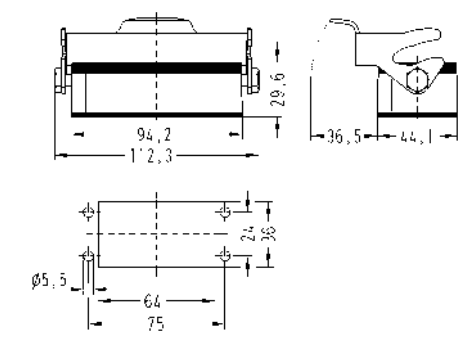

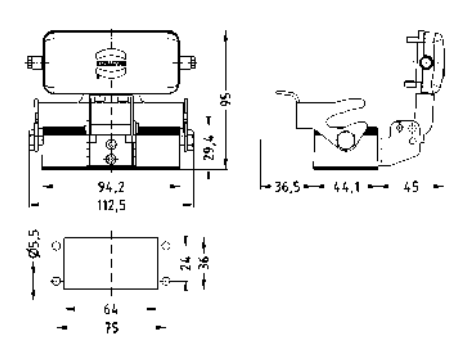
Housings

Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han-INOX®, Surface mounted housing, With seal (NBR), Side entry, IP65, IP67</p> <p>Pack contents: With seal screw</p> 	<p>1x M20</p>	<p>19 44 003 1250</p>	
<p>Han-INOX®, Surface mounted housing, With seal (FPM), Side entry, IP65, IP67</p> <p>Pack contents: With seal screw</p> 	<p>1x M20</p>	<p>19 44 003 1251</p>	
<p>Han-INOX®, Cable to cable housing, Top entry, IP65, IP67</p> <p>Pack contents: With seal screw</p> 	<p>1x M20</p>	<p>19 44 003 1750</p>	
<p>Han-INOX®, Protection cover, for hoods, Metal, With fixing cord, IP65, IP67</p>  <p>for mounted female insert or for mounted Han-Brid® insert</p>		<p>19 44 003 5421</p>	


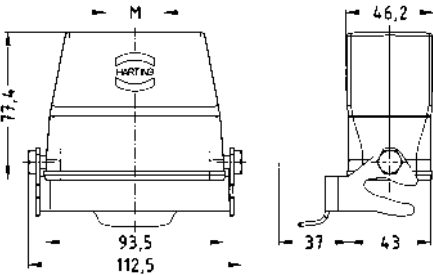

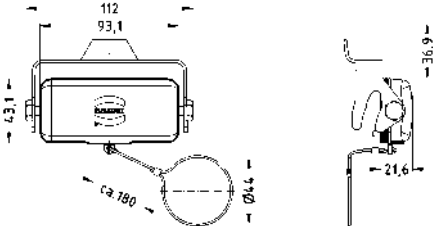

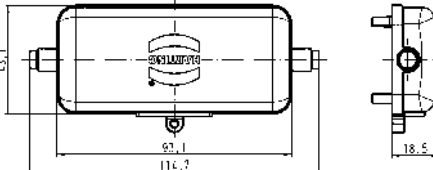

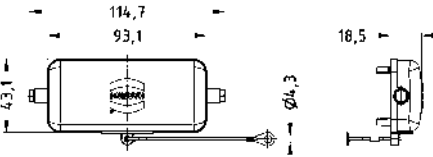
Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han-INOX®, Protection cover, for hoods, Metal, With fixing cord, IP65, IP67</p> 		19 44 003 5422	
<p>for mounted male insert</p> <p>Han-INOX®, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, Metal, With fixing cord, IP65, IP67</p> 		19 44 003 5425	
<p>for mounted female insert or for mounted Han-Brid® insert</p> <p>Han-INOX®, Protection cover, for bulkhead mounted housings, for surface mounted housings, for cable to cable housing, Metal, With fixing cord, IP65, IP67</p> 		19 44 003 5426	
<p>for mounted male insert</p>			

Hoods/housings for harsh environments  
Single locking lever

Housings

Identification	Cable entry	Part number	Drawing (dimensions in mm)
Han-INOX®, Hood, Top entry, IP65 	1x M32	19 44 310 0447	
Han-INOX®, Hood, Side entry, IP65 	1x M20 1x M25 1x M32	19 44 310 0545 19 44 310 0546 19 44 310 0547	
Han-INOX®, Bulkhead mounted housing, IP65 		19 44 310 0305 19 44 310 0306	 <p>Panel cut out</p>
Han-INOX®, Bulkhead mounted housing, With metal cover, IP65 		19 44 310 0303	 <p>Panel cut out</p>




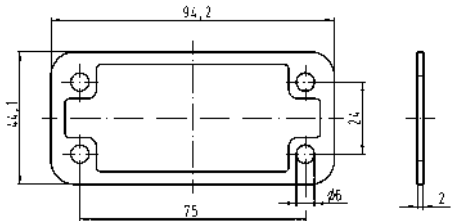

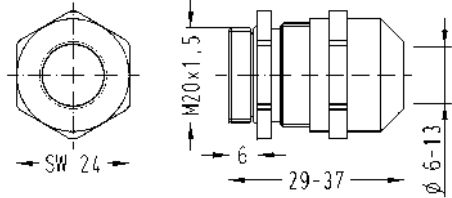
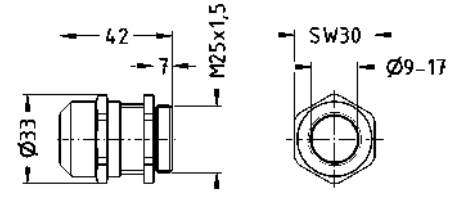
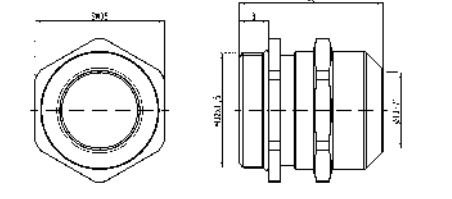
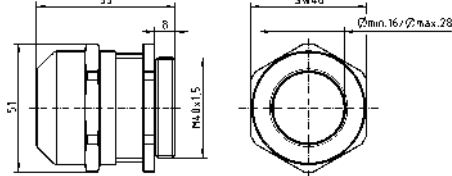
Identification	Cable entry	Part number	Drawing (dimensions in mm)
<p>Han-INOX®, Cable to cable housing, Top entry, IP65</p> 	<p>1x M32</p>	<p>19 44 310 0757</p>	
<p>Han-INOX®, Protection cover, for hoods, Metal, With fixing cord, IP65</p> 		<p>19 44 310 5422</p>	
<p>Han-INOX®, Protection cover, for bulkhead mounted housings, for cable to cable housing, Metal, IP65</p> 		<p>19 44 310 5421</p>	
<p>Han-INOX®, Protection cover, for bulkhead mounted housings, for cable to cable housing, Metal, With fixing cord, IP65</p> 		<p>19 44 310 5423</p>	

## Technical characteristics

Material (seal) NBR  
 Colour (seal) Black

## Technical characteristics

Material (cable glands) Stainless steel  
 Material (clamping ring) Polyamide (PA)  
 RoHS compliant

Identification	Size	Clamping range (mm)	Size	Part number	Drawing (dimensions in mm)
Han-INOX® Flange gasket 			10 B	19 44 000 9902	
Han-INOX® Cable gland 	M20 M25 M32 M40	6 ... 13 9 ... 17 13 ... 21 16 ... 28		19 44 000 5082 19 44 000 5083 19 44 000 5084 19 44 000 5085	   

## Contents

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Han D <sup>®</sup> crimp contacts .....	<b>Han 41.2</b>
Han E <sup>®</sup> crimp contacts .....	<b>Han 41.3</b>
Han A <sup>®</sup> screw termination.....	<b>Han 41.4</b>
Han E <sup>®</sup> screw termination .....	<b>Han 41.6</b>

Ther-  
mo

## Features

- Suitable for Han D<sup>®</sup> / DD<sup>®</sup> inserts
- Can be combined with standard crimp contacts in one connector if needed
- Iron and constantan contacts according to IEC 60584 type J
- According to EUROMAP 14, Part 1

## Technical characteristics

Contact resistance	≤1 mΩ
Material (contacts)	Iron, Constantan compliant
RoHS	

## Specifications and approvals


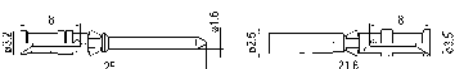

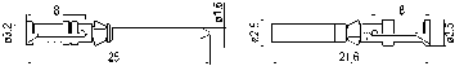
EN 60664-1  
IEC 61984

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han D <sup>®</sup> , Crimp contact, Iron  Contact surface: Gold plated  	0.14 ... 0.37	09 15 000 6171	09 15 000 6271	 Stripping length 8 mm
Han D <sup>®</sup> , Crimp contact, Constantan  	0.14 ... 0.37	09 15 000 6161	09 15 000 6261	 Stripping length 8 mm

## Features

- Suitable for Han E<sup>®</sup>, Han<sup>®</sup> EE / EEE, Han<sup>®</sup> Q and Han A<sup>®</sup> inserts
- Can be combined with standard crimp contacts in one connector if needed
- Iron and constantan contacts according to IEC 60584 type J
- According to EUROMAP 14, Part 1

## Technical characteristics

Contact resistance	≤1 mΩ
Material (contacts)	Iron, Constantan
RoHS	compliant

## Specifications and approvals


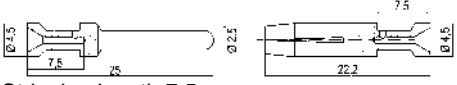

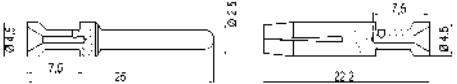
EN 60664-1  
IEC 61984

## Details

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han E <sup>®</sup> , Crimp contact, Iron  Contact surface: Gold plated  	0.14 ... 0.37 0.5	09 33 000 6173 09 33 000 6172	09 33 000 6273 09 33 000 6272	 <p>Stripping length 7.5 mm</p>
Han E <sup>®</sup> , Crimp contact, Constantan  	0.14 ... 0.37 0.5	09 33 000 6163 09 33 000 6162	09 33 000 6263 09 33 000 6262	 <p>Stripping length 7.5 mm</p>

## Features

- Connector for temperature measurement conductors - suitable for injection moulding machines
- Iron and constantan contacts according to IEC 60584 type J
- According to EUROMAP 14, Part 1

## Technical characteristics

Number of contacts	16
Rated current	16 A
Rated voltage	250 V
Rated impulse voltage	4 kV
Pollution degree	3
Rated voltage acc. to UL	600 V
Insulation resistance	>10 <sup>10</sup> Ω
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Specifications and approvals

EN 60664-1  
IEC 61984  
DNV GL

Number of contacts

# 16+

16 A 250 V 4 kV 3

Ther-  
mo

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han® Thermocouple, Han A®, Screw termination 	1 ... 2.5	09 20 016 2691	09 20 016 2891	<p>1) Distance for contact max. 24 mm                      Stripping length 7.5 mm                      Tightening torque 0.5 Nm</p> <p>◆ Fe                      ○ CuNi</p> <p>Panel cut out                      for use without Hoods/Housings</p>

## Features

- Connector for temperature measurement conductors - suitable for injection moulding machines
- Iron and constantan contacts according to IEC 60584 type J
- According to EUROMAP 14, Part 1

## Technical characteristics

Number of contacts	10, 16, 24
Rated current	16 A
Rated voltage	400 V
Rated impulse voltage	6 kV
Pollution degree	3
Insulation resistance	>10 <sup>10</sup> Ω
Limiting temperature	-40 ... +125 °C
Mating cycles	≥500
Material (insert)	Polycarbonate (PC)
Colour (insert)	RAL 7032 (pebble grey)
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption, compliant

## Specifications and approvals

EN 60664-1  
IEC 61984  
DNV GL

## Details

Tightening torque 0.5 Nm

Tightening torque PE screw 1.2 Nm


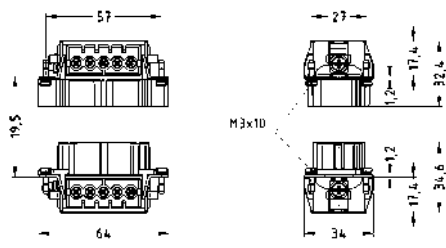
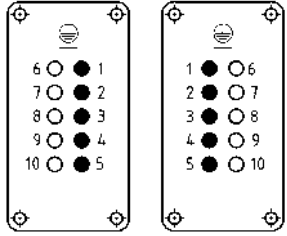
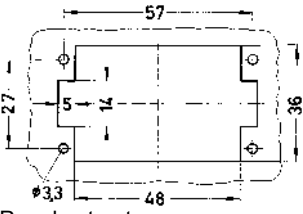


Number of contacts

# 10+

16 A 400 V 6 kV 3

Ther-  
mo


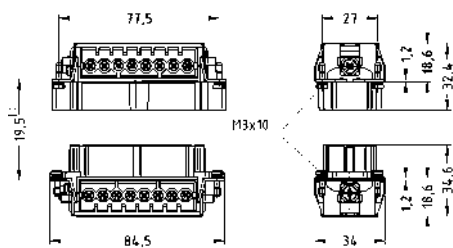
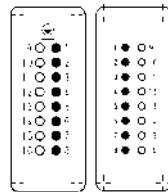
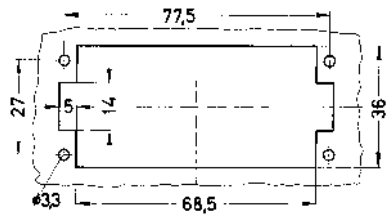
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han <sup>®</sup> Thermocouple, Han E <sup>®</sup> , Screw termination, With wire protection 	1 ... 2.5	09 33 010 2691	09 33 010 2791	 <p>1) distance for contact max. 21 mm</p>  <ul style="list-style-type: none"> <li>◆ Fe</li> <li>○ CuNi</li> </ul>  <p>Panel cut out</p>

Number of contacts

# 16+

16 A 400 V 6 kV 3

Ther-  
mo

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han <sup>®</sup> Thermocouple, Han E <sup>®</sup> , Screw termination, With wire protection 	1 ... 2.5	09 33 016 2691	09 33 016 2791	 <p>1) distance for contact max. 21 mm</p>  <ul style="list-style-type: none"> <li>◆ Fe</li> <li>○ CuNi</li> </ul>  <p>Panel cut out</p>

Number of contacts

# 24+

16 A 400 V 6 kV 3

Ther-  
mo

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han<sup>®</sup> Thermocouple, Han E<sup>®</sup>, Screw termination, With wire protection</p> <p>Also suitable for standard contacts</p>	1 ... 2.5	09 33 024 2689	09 33 024 2789	<p>1) distance for contact max. 21 mm</p> <p>Standard contacts                      ◆ Fe                      ○ CuNi</p>
<p>Han<sup>®</sup> Thermocouple, Han E<sup>®</sup>, Screw termination, With wire protection</p>	1 ... 2.5	09 33 024 2691	09 33 024 2791	<p>◆ Fe                      ○ CuNi</p> <p>Panel cut out</p>

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Modules .....

**Han 42.5**

Hoods/Housings .....

**Han 42.7**

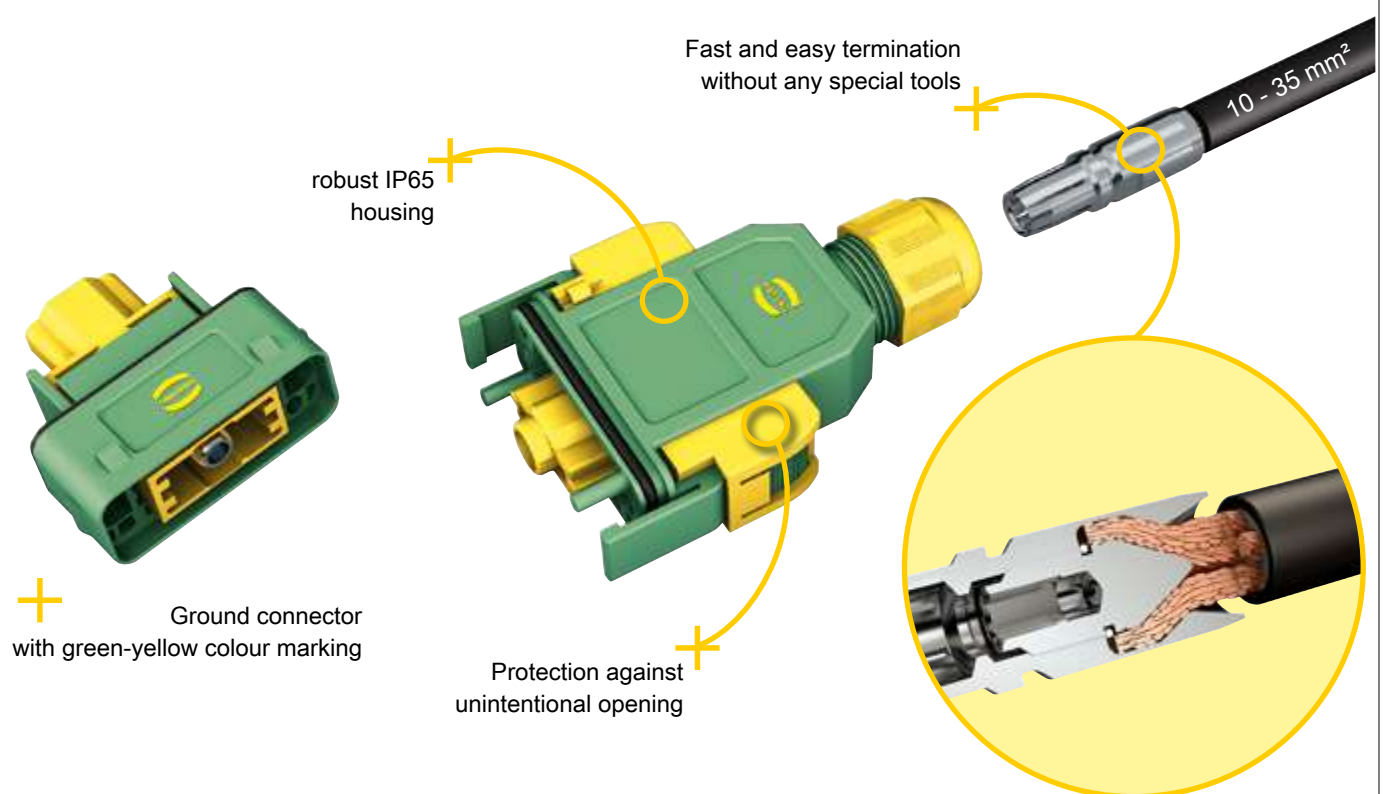
Han  
GND

## Han® GND – Mateable Potential Equalization

The new Han® GND series now enables pluggable grounding systems.

Han® GND (Han® Ground) is the innovative HARTING solution for potential equalization. The new connector series makes it possible to execute grounding systems in a pluggable design for the first time.

The use of connectors has been well-established in the electrical cabling of machines and systems for many years. The advantage is quick and error-free commissioning. Potential equalization lines are still being permanently connected, which is relatively time-consuming and can be subject to errors. HARTING's remedy: the Han® GND. The single-pole connector in the robust IP65 plastic housing is designed for stranded wires from 10 - 35 mm<sup>2</sup> and is optionally available in crimp or axial screw termination. The latter has the advantage that the lines can be connected without a special tool. A simple screwdriver is all it takes to achieve a quick and easy reliable connection. Extra connector mating security can be provided by the use of additional locking elements that prevent unintentional opening.



## Assembly and construction

### Assembly

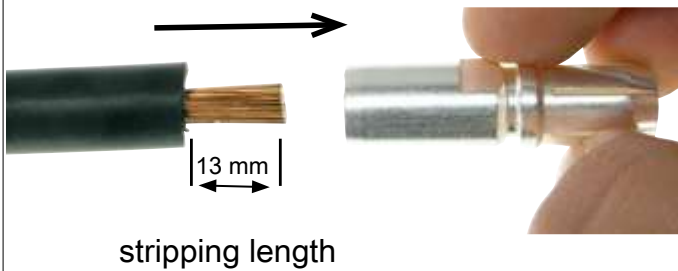
Please use fine stranded wire (Class 5) which is recommend for the axial screw termination.



Do not twist the stripped wire!

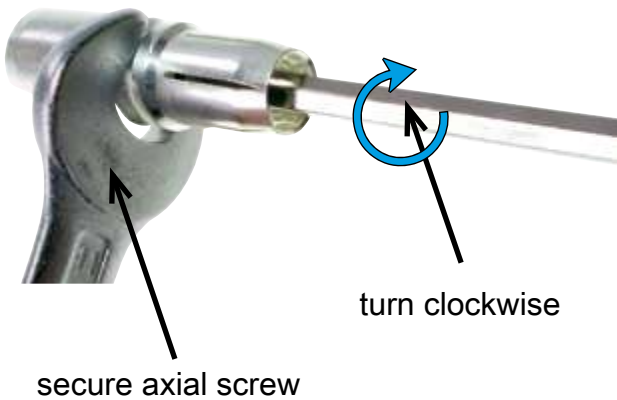
1.

Please strip the wire. All suitable wire gauges have to be stripped with a length of 13 mm (acc. to Class 5). Insert stripped wire into the terminal and push fully inside. Pay attention that all fine stranded wires are inserted in the contact chamber.



2.

Please insert suitable torque key (SW 4) into the contact from mating side and turn the axial screw clockwise. For that purpose secure the axial screw with a spanner (SW 11). Tighten the screw to the specified torque value.



## Assembly and construction

Han  
GND

3.

Insert the installed cable through the cable gland into the Han® GND housing! Push the axial screw contact into the module until you hear an audible click, which is the indicator that the contact snaps into position.



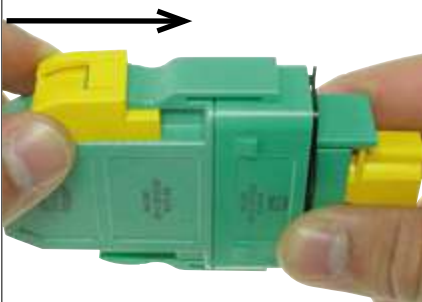
4.

Push the module back into the housing and turn the cable gland clockwise.



5.

Mount the module in the housing with the enclosed screws.



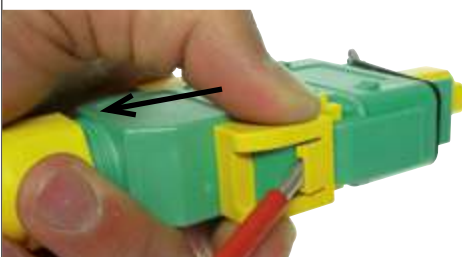
### Protection against unintentional opening (option)

1.

Push the unlocking protection over the opening latches to prevent an unintentional opening (the connector can only be unmated with a separate tool).

2.

The removal of the unlocking protection can be done with a screwdriver for slotted screws (e.g. size 0.8 x 4.0). Insert the screwdriver in the unlocking protection slot and release the plastic latch until you are able to remove the unlocking protection with your fingers.



## Features

- First connector for potential equalisation
- Slim, space saving construction type
- Low cost plastic hoods and housings
- Colours: green and yellow
- Crimp or axial screw termination available

## Technical characteristics

Number of contacts	1
Insulation resistance	$>10^{10} \Omega$
Contact resistance	$\leq 0.3 \text{ m}\Omega$
Limiting temperature	$-40 \dots +125 \text{ }^\circ\text{C}$
Mating cycles	$\geq 500$
Material (insert)	Polycarbonate (PC)
Colour (insert)	Yellow
Material (contacts)	Copper alloy
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Specifications and approvals

EN 60664-1  
IEC 61984  
UL 1977 ECBT2.E235076

## Details

**Hex key (A/F 4)** see chapter Han 90

For more technical details (i.e. number of crimping operations or crimping position) see eCatalogue

### Remarks on the axial screw technique

The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

**Crimping tools** see chapter Han 90

### Remarks on the crimp technique


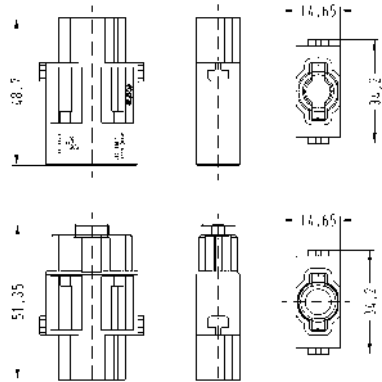

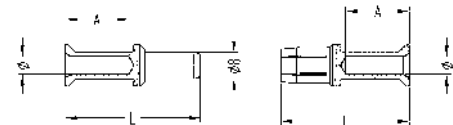

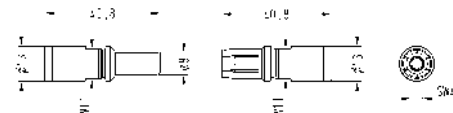
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.



Number of contacts

# 1

Han  
GND

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)															
		Male	Female																
Han® GND, Crimp termination, Axial screw termination   Please order contacts separately.	10 ... 35	09 14 001 3032	09 14 001 3132																
TC 100, Crimp contact, Contact surface: Silver plated  	10 16 25 35	09 11 000 6114 09 11 000 6116 09 11 000 6125 09 11 000 6135	09 11 000 6214 09 11 000 6216 09 11 000 6225 09 11 000 6235	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>Ø</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>10 mm<sup>2</sup></td> <td>4.3</td> <td>19 mm</td> </tr> <tr> <td>16 mm<sup>2</sup></td> <td>5.5</td> <td>19 mm</td> </tr> <tr> <td>25 mm<sup>2</sup></td> <td>7</td> <td>19 mm</td> </tr> <tr> <td>35 mm<sup>2</sup></td> <td>8.2</td> <td>16 mm</td> </tr> </tbody> </table> for stranded wire according to IEC 60 228 Class 5	Conductor cross-section	Ø	Stripping length	10 mm <sup>2</sup>	4.3	19 mm	16 mm <sup>2</sup>	5.5	19 mm	25 mm <sup>2</sup>	7	19 mm	35 mm <sup>2</sup>	8.2	16 mm
Conductor cross-section	Ø	Stripping length																	
10 mm <sup>2</sup>	4.3	19 mm																	
16 mm <sup>2</sup>	5.5	19 mm																	
25 mm <sup>2</sup>	7	19 mm																	
35 mm <sup>2</sup>	8.2	16 mm																	
TC 100, Axial screw contact, Contact surface: Silver plated  	10 ... 25 16 ... 35	09 11 000 6112 09 11 000 6113	09 11 000 6212 09 11 000 6213	 Stripping length 13 mm  Tightening torque <table border="1"> <thead> <tr> <th>mm<sup>2</sup></th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> </tr> </thead> <tbody> <tr> <td>Nm</td> <td>6</td> <td>6</td> <td>7</td> <td>8</td> </tr> </tbody> </table>	mm <sup>2</sup>	10	16	25	35	Nm	6	6	7	8					
mm <sup>2</sup>	10	16	25	35															
Nm	6	6	7	8															

## Features

- First connector for potential equalisation
- Slim, space saving construction type
- Low cost plastic hoods and housings
- Colours: green and yellow

## Technical characteristics


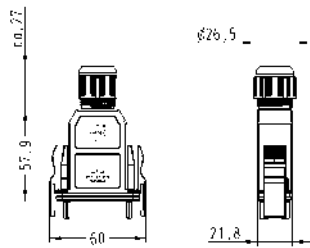

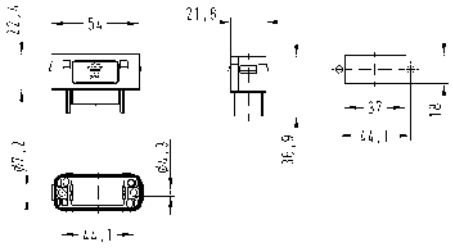

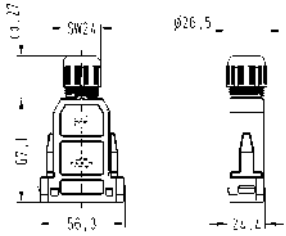

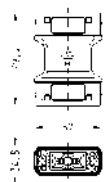

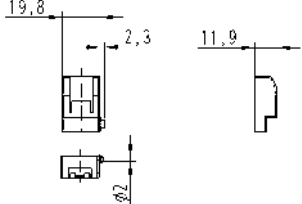
Limiting temperature	-40 ... +85 °C
Mating cycles	≥500
Degree of protection acc. to IEC 60529	IP65
Material (hood/housing)	Polycarbonate (PC)
Colour (hood/housing)	Green, Yellow
Material (seal)	NBR
Material (cable glands)	Polyamide (PA)
Material flammability class acc. to UL 94	V-0
RoHS	compliant, compliant with exemption

## Specifications and approvals

EN 60664-1  
IEC 61984

Snap-in latches

Han  
GND

Identification	Cable entry	Cable diameter (mm)	Part number	Drawing (dimensions in mm)
Han® GND, Hood, Top entry, IP65 	1x Integrated	7.5 ... 14	09 14 001 0430	
Han® GND, Bulkhead mounted housing, IP65 			09 14 001 0330	
Han® GND, Cable to cable housing, Top entry, IP65 	1x Integrated	7.5 ... 14	09 14 001 0730	
Han® GND, Adapter, Male / male 			09 14 001 9901	
Han® GND, Unlocking protection 			09 14 000 9938	

Contents	Page
D-Sub adapter .....	<b>Han 80.2</b>
Locking levers.....	<b>Han 80.8</b>
Seals.....	<b>Han 80.10</b>
Han® Hood Link.....	<b>Han 80.12</b>
Panel feed through housings.....	<b>Han 80.13</b>
Accessories for flat cable entry.....	<b>Han 80.19</b>
Cable glands.....	<b>Han 80.20</b>
Shielding frame.....	<b>Han 80.26</b>
Grip frames.....	<b>Han 80.29</b>
Coding of inserts in hoods/housings.....	<b>Han 80.33</b>
Han® docking frame .....	<b>Han 80.38</b>
PE Multiple ground connection.....	<b>Han 80.40</b>
Strain relief clamp.....	<b>Han 80.41</b>
Special insert fixing screws .....	<b>Han 80.42</b>
Screws.....	<b>Han 80.43</b>
Bearing pedestal and covers .....	<b>Han 80.46</b>
Further accessories.....	<b>Han 80.47</b>

Accessories


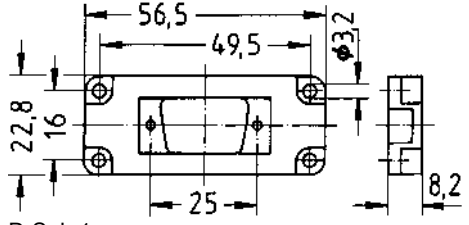

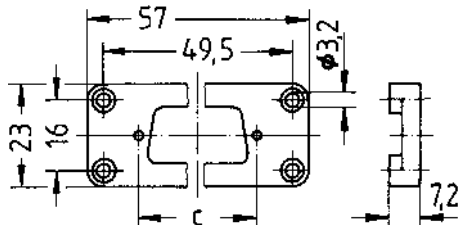




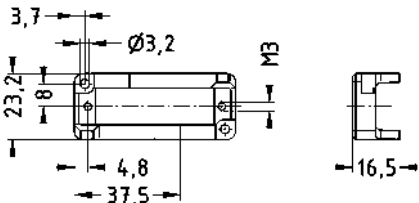
## Technical characteristics

Material (accessories)      Thermoplastic, Metal compliant  
RoHS

## Details

Not suitable for D-Sub High Density!

Identification	Part number	Drawing (dimensions in mm)
<p>D-Sub 1, Adapter plate, for 1 x D-Sub, Pack contents: 1 adapter, 4 fixing screws for adapter, 2 fixing screws for D-Sub connector</p> 	<p>09 20 000 9932</p>	 <p>D-Sub 1</p>
<p>D-Sub 2, Adapter plate, for 1 x D-Sub, Pack contents: 1 adapter, 4 fixing screws for adapter, 2 fixing screws for D-Sub connector</p> 	<p>09 20 000 9928</p>	 <p>D-Sub 2 c= 33.3 mm D-Sub 3 c= 47 mm</p>
<p>D-Sub 3, Adapter plate, for 1 x D-Sub, Pack contents: 1 adapter, 4 fixing screws for adapter, 2 fixing screws for D-Sub connector</p> 	<p>09 20 000 9929</p>	

Identification	Part number	Drawing (dimensions in mm)
<p>D-Sub 3 in the Han® 10 A, D-Sub 4 in the Han® 16 A, Adapter plate, for 1 x D-Sub, Metal,</p> <p>Pack contents: Two-piece adapter, 2 fixing screws for adapter, 2 fixing screws for D-Sub connector</p> 	<p>09 20 000 9925</p>	

Accessories


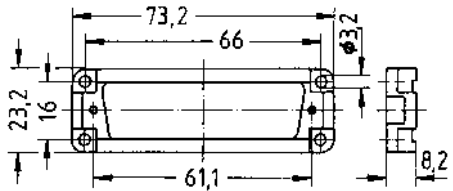

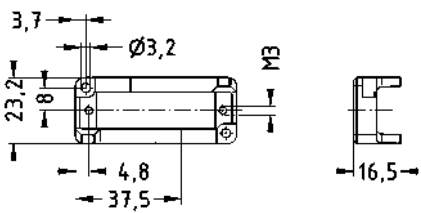


Technical characteristics

Material (accessories) Thermoplastic, Metal  
RoHS compliant

Details

Not suitable for D-Sub High Density!

Identification	Part number	Drawing (dimensions in mm)
<p>D-Sub 5, Adapter plate, for 1 x D-Sub, Pack contents: 1 adapter, 4 fixing screws for adapter, 2 fixing screws for D-Sub connector</p> 	<p>09 20 000 9931</p>	
<p>D-Sub 3 in the Han® 10 A, D-Sub 4 in the Han® 16 A, Adapter plate, for 1 x D-Sub, Metal, Pack contents: Two-piece adapter, 2 fixing screws for adapter, 2 fixing screws for D-Sub connector</p> 	<p>09 20 000 9925</p>	



Accessories

## Technical characteristics

Material (accessories) Thermoplastic compliant  
RoHS

## Details

Not suitable for D-Sub High Density!

Identification	Part number	Drawing (dimensions in mm)
<p>D-Sub 1, Adapter plate, for 1 x D-Sub, Pack contents: 1 adapter, 4 fixing screws for adapter, 2 fixing screws for D-Sub connector</p>	09 30 000 9965	<p>① Mounting in housing: character A visible ② Mounting in hood: character T visible D-Sub 1: a=44; b=51.5; c=25 D-Sub 2: a=44; b=51.5; c=33.3</p>
<p>D-Sub 2, Adapter plate, for 1 x D-Sub, Pack contents: 1 adapter, 4 fixing screws for adapter, 2 fixing screws for D-Sub connector</p>	09 30 000 9966	
<p>D-Sub 1, Adapter plate, for 2x D-Sub, Pack contents: 1 adapter, 4 fixing screws for adapter, 4 fixing screws for D-Sub connector</p>	09 30 000 9970	<p>① Mounting in housing: character A visible ② Mounting in hood: character T visible D-Sub 2x 1: a=44; b=51.5; c=25 D-Sub 2x 2: a=44; b=51.5; c=33.3</p>
<p>D-Sub 2, Adapter plate, for 2x D-Sub, Pack contents: 1 adapter, 4 fixing screws for adapter, 4 fixing screws for D-Sub connector</p>	09 30 000 9971	





Accessories




Technical characteristics

Material (accessories)      Thermoplastic  
RoHS                              compliant

Details

Not suitable for D-Sub High Density!

Identification	Part number	Drawing (dimensions in mm)
<p>D-Sub 3, Adapter plate, for 1 x D-Sub, Pack contents: 1 adapter, 4 fixing screws for adapter, 2 fixing screws for D-Sub connector</p>	<p>09 30 000 9967</p>	<p>① Mounting in housing: character A visible ② Mounting in hood: character T visible D-Sub 3: a=57; b=64.5; c=47</p>
<p>D-Sub 3, Adapter plate, for 2x D-Sub, Pack contents: 1 adapter, 4 fixing screws for adapter, 4 fixing screws for D-Sub connector</p> 	<p>09 30 000 9972</p>	<p>① Mounting in housing: character A visible ② Mounting in hood: character T visible D-Sub 2x 3: a=57; b=64.5; c=47</p>



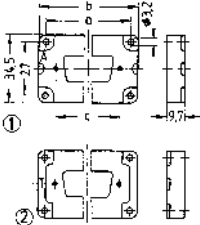
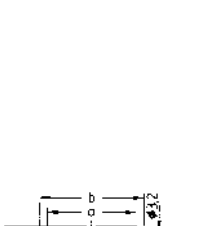
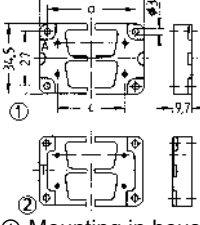

Accessories

Technical characteristics

Material (accessories) Thermoplastic compliant  
RoHS

Details

Not suitable for D-Sub High Density!

Identification	Part number	Drawing (dimensions in mm)
<p>D-Sub 4, Adapter plate, for 1 x D-Sub, Pack contents: 1 adapter, 4 fixing screws for adapter, 2 fixing screws for D-Sub connector</p>	<p>09 30 000 9968</p>	 <p>① Mounting in housing: character A visible ② Mounting in hood: character T visible D-Sub 4: a=77.5; b=85; c=63.5 D-Sub 5: a=77.5; b=85; c=61.1</p>
<p>D-Sub 5, Adapter plate, for 1 x D-Sub, Pack contents: 1 adapter, 4 fixing screws for adapter, 2 fixing screws for D-Sub connector</p>	<p>09 30 000 9969</p>	 <p>① Mounting in housing: character A visible ② Mounting in hood: character T visible D-Sub 2x 4: a=77.5; b=85; c=63.5 D-Sub 2x 5: a=77.5; b=85; c=61.1</p>
<p>D-Sub 4, Adapter plate, for 2x D-Sub, Pack contents: 1 adapter, 4 fixing screws for adapter, 4 fixing screws for D-Sub connector</p>	<p>09 30 000 9973</p>	 <p>① Mounting in housing: character A visible ② Mounting in hood: character T visible D-Sub 2x 4: a=77.5; b=85; c=63.5 D-Sub 2x 5: a=77.5; b=85; c=61.1</p>
<p>D-Sub 5, Adapter plate, for 2x D-Sub, Pack contents: 1 adapter, 4 fixing screws for adapter, 4 fixing screws for D-Sub connector</p>	<p>09 30 000 9974</p>	



Double locking lever



Accessories

## Technical characteristics

Material (accessories) Polycarbonate (PC), Stainless steel  
 Colour (accessories) RAL 7037 (dust grey)

## Technical characteristics

Material flammability class acc. to UL 94 (locking levers) V-0  
 RoHS compliant

Identification	Size	Part number	Drawing (dimensions in mm)
Han A®, Han-Easy Lock®, Locking levers, RAL 7037 (dust grey) 	32 A	09 00 000 5223	
Han® B, Han-Easy Lock®, Locking levers, RAL 7037 (dust grey) 	10/16/24 B 32 B	09 00 000 5221 09 00 000 5231	

Single locking lever



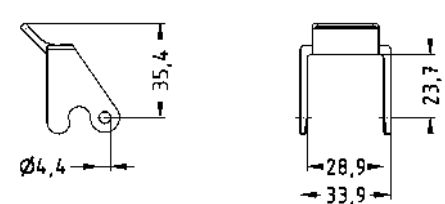



Accessories

## Technical characteristics

Material (accessories) Thermoplastic, Polycarbonate (PC), Stainless steel  
 Colour (accessories) RAL 7032 (pebble grey), Black, RAL 7037 (dust grey)

## Technical characteristics

Material flammability class acc. to UL 94 (locking levers) V-0  
 RoHS compliant

Identification	Size	Part number	Drawing (dimensions in mm)
Locking levers, RAL 7032 (pebble grey)	3 A	09 00 000 5241	
			
Locking levers, Black	3 A	09 00 000 5242	
			
Locking levers, Han® Q 8/0, Black	Han-Compact®	09 00 000 5244	
			
Han A®, Han-Easy Lock®, Locking levers, RAL 7037 (dust grey)	10 A 16 A	09 00 000 5224 09 00 000 5225	
			
Han® B, Han-Easy Lock®, Locking levers, RAL 7037 (dust grey)	06 B 10 B 16 B 24 B	09 00 000 5222 09 00 000 5228 09 00 000 5229 09 00 000 5230	
			

Accessories



## Technical characteristics

Material (seal) NBR, FPM  
 Colour (seal) Black, Light grey

## Technical characteristics

RoHS compliant with exemption, compliant

Identification	Size	Part number	Drawing (dimensions in mm)
Han A®, Flange gasket	03 A	09 20 000 9991	
	10 A	09 20 000 9992	
	16 A	09 20 000 9993	
	32 A	09 20 000 9994	
Han® B, Flange gasket	06 B	09 30 000 9991	
	10 B	09 30 000 9992	
	16 B	09 30 000 9993	
	24 B	09 30 000 9994	
Han® B, Flange gasket, Self-retaining	06 B	09 30 000 9801	
	10 B	09 30 000 9802	
	16 B	09 30 000 9803	
	24 B	09 30 000 9804	
Flange gasket	48 HPR Han-Drive® Modular Compact	09 30 000 9996	
		09 30 000 9903	
		09 14 000 9940	
Flange gasket, Han® HPR	03 HPR	09 40 000 9980	
	06 HPR	09 40 000 9801	
	10 HPR	09 40 000 9802	
	16 HPR	09 40 000 9803	
	24 HPR	09 40 000 9804	
Han A®, Flange gasket, FPM	3 A	09 37 000 9912	
Han® M, Flange gasket, FPM	06 B	09 37 000 9946	
	10 B	09 37 000 9947	
	16 B	09 37 000 9948	
	24 B	09 37 000 9949	

## Technical characteristics

Material (seal) NBR, FPM

## Technical characteristics

Colour (seal) Black, RAL 7001 (silver-grey)  
RoHS compliant

Identification	Size	Part number	Drawing (dimensions in mm)
Han A®, Profile gasket	03 A	09 70 000 9991	
	10 A	09 20 000 9996	
	16 A	09 20 000 9997	
Han® B, Profile gasket	06 B	09 30 000 9941	
	10 B	09 30 000 9942	
	16 B	09 30 000 9943	
	24 B	09 30 000 9944	
	32 B	09 30 000 9963	
	48 B	09 30 000 9995	
Han® HPR, O-ring rubber seal	03 HPR	09 40 000 9910	
	06 HPR	09 40 000 9911	
	10 HPR	09 40 000 9912	
	16 HPR	09 40 000 9913	
	24 HPR	09 40 000 9914	
L-seal	06 B	09 30 000 9936	
	10 B	09 30 000 9935	
	16 B	09 30 000 9934	
	24 B	09 30 000 9933	
Profile gasket, FPM	03 A	09 21 000 9906	
	06 B	09 30 000 9951	
	10 B	09 30 000 9952	
	16 B	09 30 000 9953	
	24 B	09 30 000 9954	


Accessories

### Features

- Cable to cable connection simple to realise and easy to mount
- Resistant elastomer
- Locking as well as seal combined in one system
- for two lever locking system

### Technical characteristics

Limiting temperature	-40 ... +85 °C
Degree of protection acc. to IEC 60529	IP65, locked condition
Colour (hood/housing)	Black
RoHS	compliant

Identification	Part number	Drawing (dimensions in mm)
Locking element, for hoods, IP65 locked condition  	09 30 016 9901	

Standard hoods/housings for industrial connectors  
Double locking lever



Accessories

## Features


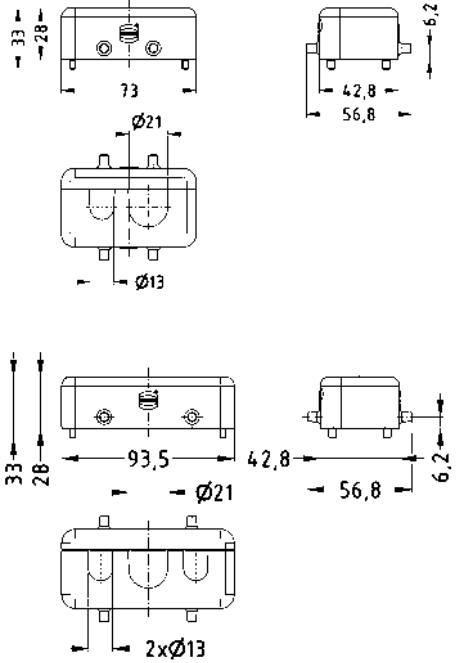
- Allows the entry of pre-assembled cables into a switch cabinet
- Robust design
- High pole cable entry seals for up to 10 different cables
- For sealing and feed through of pre-assembled cables

## Technical characteristics

Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP65
Material (hood/housing)	Aluminium die-cast
Material (seal)	NBR
RoHS	compliant


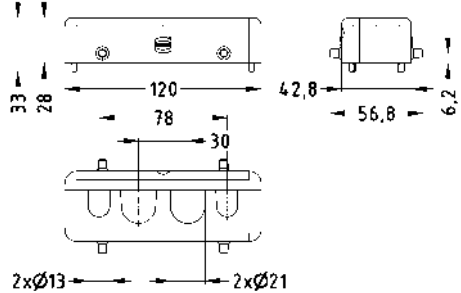
## Specifications and approvals



Identification	Cable entry	Size	Part number High construction	Drawing (dimensions in mm)
<p>Han® B, Panel feed through housing, Top entry, IP65</p> <p>Pack contents: 2 split hood halves, 2x M4 screw</p>  <p>Please order cable entry seals separately.</p>	<p>2x 3x</p>	<p>10 B 16 B</p>	<p>09 30 010 0498 09 30 016 0498</p>	



Accessories


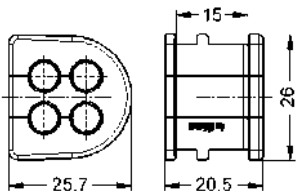

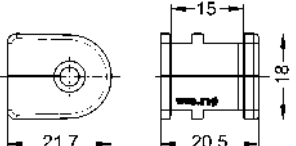

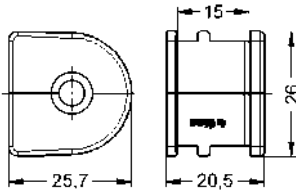

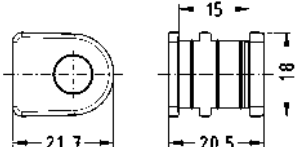

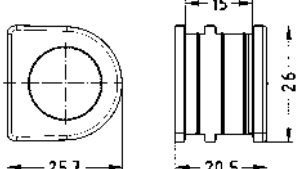
Identification	Cable entry	Size	Part number High construction	Drawing (dimensions in mm)
<p>Han® B, Panel feed through housing, Top entry, IP65</p> <p>Pack contents: 2 split hood halves, 3x M4 screw</p>  <p>Please order cable entry seals separately.</p>	4x	24 B	09 30 024 0498	

## Technical characteristics

Material (accessories) NBR

## Technical characteristics

Colour (accessories) Black  
RoHS compliant

Identification	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Cable entry seal, 4 cable entries, Wide version  	... 6	09 00 000 6004	
Cable entry seal, 1 cable entry, Narrow version  	4.5 ... 6 6 ... 7.5 7.5 ... 9	09 00 000 6005 09 00 000 6006 09 00 000 6007	
Cable entry seal, 1 cable entry, Wide version  	9 ... 10.5 10.5 ... 12 12 ... 13.5 13.5 ... 15 15 ... 16	09 00 000 6008 09 00 000 6009 09 00 000 6010 09 00 000 6011 09 00 000 6012	
Dummy plugs, Narrow version  		09 00 000 6101	
Dummy plugs, Wide version  		09 00 000 6102	

Standard hoods/housings for industrial connectors  
Double locking lever

Accessories



## Features

- Allows the entry of pre-assembled cables into a switch cabinet
- Use of identification strips is possible
- No special tools required
- Standard screw driver (5 x 1 mm) necessary to open split hood
- IP54 due to continuous contoured seal


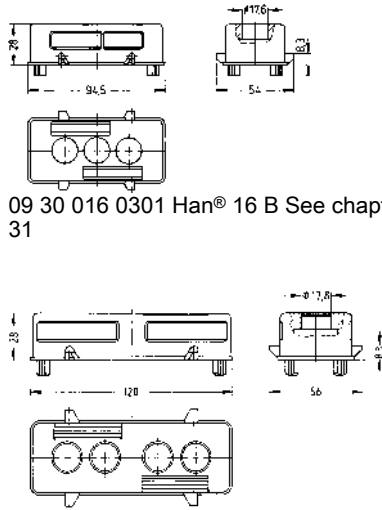
## Technical characteristics


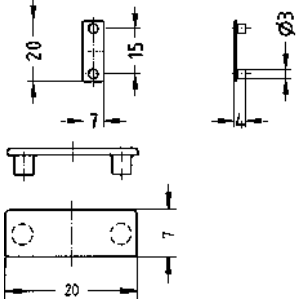
Limiting temperature	-40 ... +125 °C
Degree of protection acc. to IEC 60529	IP65
Type rating acc. to UL 50 / UL 50E	4, 4X, 12
Material (hood/housing)	Polycarbonate (PC)
Colour (hood/housing)	RAL 7037 (dust grey)
RoHS	compliant

## Specifications and approvals

UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076



Identification	Cable entry	Cable diameter (mm)	Size	Part number	Drawing (dimensions in mm)
Han® B, Panel feed through housing, Top entry, IP65 Pack contents: 2 split hood halves    Please order cable entry seals separately. IP54 when mounted vertically	3x Integrated 4x Integrated	17.6 17.8	16 B 24 B	09 30 016 0408 09 30 024 0408	 <p>09 30 016 0301 Han® 16 B See chapter Han 31</p> <p>09 30 024 0301 Han® 24 B See chapter Han 31</p>

Identification	Cable entry	Cable diameter (mm)	Size	Part number	Drawing (dimensions in mm)
<p>Han-Snap<sup>®</sup>, Identification strip</p> 				09 33 000 9981	

Accessories

Accessories

## Technical characteristics

Material (accessories) Thermoplastic, NBR

## Technical characteristics

Colour (accessories) Black  
RoHS compliant

Identification	Clamping range (mm)	Part number	Drawing (dimensions in mm)
----------------	---------------------	-------------	----------------------------

Cable entry seal



3 ... 4  
4 ... 5  
5 ... 6  
6 ... 7  
7 ... 8  
8 ... 9  
9 ... 10

09 00 000 5351  
09 00 000 5352  
09 00 000 5353  
09 00 000 5354  
09 00 000 5355  
09 00 000 5356  
09 00 000 5357

Cable entry seal,  
Additional strain relief can be provided by  
cable ties (max. width 8 mm)



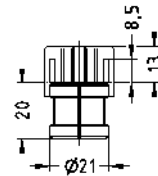
10 ... 11  
11 ... 12  
12 ... 13  
13 ... 14  
14 ... 15  
15 ... 16

09 00 000 5358  
09 00 000 5359  
09 00 000 5360  
09 00 000 5361  
09 00 000 5362  
09 00 000 5363

Cable entry seal,  
for ASI cable



09 00 000 5364

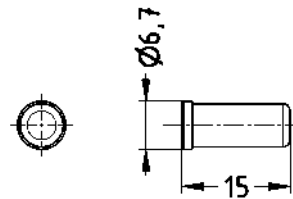
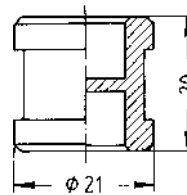


Dummy plugs



4.5 ... 6

09 00 000 5350  
09 00 000 6103


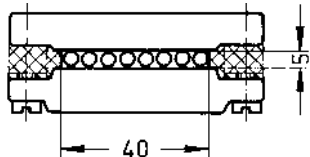

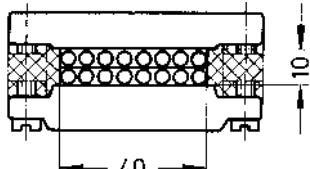

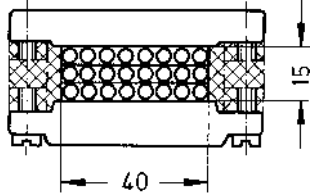

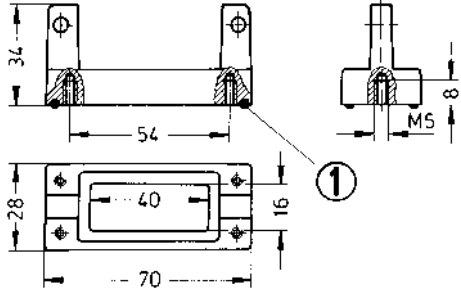


## Technical characteristics

Material (seal) NBR

## Technical characteristics

Colour (seal) Black  
RoHS compliant

Identification	Part number	Drawing (dimensions in mm)
<p>Set of seals for ribbon cable entry, With strain relief clamp, for 1 flat cable</p> 	09 00 000 5315	
<p>Set of seals for ribbon cable entry, With strain relief clamp, for 2 flat cables</p> 	09 00 000 5316	
<p>Set of seals for ribbon cable entry, With strain relief clamp, for 3 flat cables</p> 	09 00 000 5317	
<p>Holder for ribbon cable entry, for separate mounting</p> 	09 00 000 5325	 <p>① O-Ring seal</p>

Accessories

## Technical characteristics

Limiting temperature	-40 ... +100 °C
Degree of protection acc. to IEC 60529	IP68, IP69 / IPX9K acc. to ISO 20653
Material (seal)	NBR
Material (cable glands)	Polyamide (PA)
Colour (accessories)	RAL 5012 (light blue), RAL 9005 (jet black), RAL 7032 (pebble grey), RAL 7035 (light grey)

## Technical characteristics

Material flammability class acc. to UL 94 V-0  
RoHS compliant

## Specifications and approvals

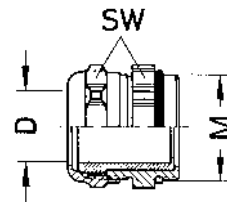
DNV GL  
UL 514B QCRV.E479780  
CSA-C22.2 No. 18.3 QCRV7.E479780

Identification	Size	Clamping range (mm)	Part number	Drawing (dimensions in mm)
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Han® CGM-Ex i,  
Cable gland,  
Intrinsically safe electric circuits,  
Blue,  
IP68,  
IP69 / IPX9K acc. to ISO 20653

M20	5 ... 9
M20	6 ... 12
M25	9 ... 16
M32	13 ... 20
M40	22 ... 32

19 00 000 7101
19 00 000 7102
19 00 000 7104
19 00 000 7106
19 00 000 7109



Han® CGM-P,  
Cable gland,  
Grey,  
IP68,  
IP69 / IPX9K acc. to ISO 20653



M20	5 ... 9
M20	6 ... 12
M20	10 ... 14
M25	9 ... 16
M25	13 ... 18
M32	13 ... 18
M32	18 ... 25
M40	20 ... 26
M40	22 ... 32

19 00 000 5180
19 00 000 5182
19 00 000 5184
19 00 000 5190
19 00 000 5192
19 00 000 5194
19 00 000 5196
19 00 000 5197
19 00 000 5198

Clamping range Ø	SW	E	Nm
5 ... 9 mm	24	26.4	4.5
6 ... 12 mm	24	26.4	4.5
10 ... 14 mm	27	29.8	4.5
9 ... 16 mm	33	33.5	5
13 ... 18 mm	33	36.5	5
13 ... 20 mm	42	46.8	6.5
18 ... 25 mm	42	46.8	6.5
20 ... 26 mm	53	58.8	10
22 ... 32 mm	53	58.8	10

Han® CGM-P,  
Cable gland,  
Black,  
IP68,  
IP69 / IPX9K acc. to ISO 20653



M20	5 ... 9
M20	6 ... 12
M20	10 ... 14
M25	9 ... 16
M25	13 ... 18
M32	13 ... 20
M32	18 ... 25
M40	20 ... 26
M40	22 ... 32

19 00 000 5181
19 00 000 5183
19 00 000 5185
19 00 000 5191
19 00 000 5193
19 00 000 5186
19 00 000 5187
19 00 000 5188
19 00 000 5189

## Technical characteristics

Limiting temperature	-40 ... +100 °C
Degree of protection acc. to IEC 60529	IP68, IP69 / IPX9K acc. to ISO 20653
Material (seal)	NBR, EPDM
Material (cable glands)	Brass
Material (clamping ring)	Polyamide (PA)
Surface (accessories)	Nickel plated
RoHS	compliant with exemption

## Specifications and approvals

UL 514B QCRV.E479780  
 CSA-C22.2 No. 18.3 QCRV7.E479780  
 DNV GL

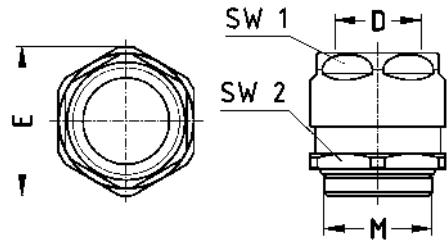
Identification	Size	Clamping range (mm)	Part number	Drawing (dimensions in mm)																																																												
Han® CGM-M, Cable gland, IP68, IP69 / IPX9K acc. to ISO 20653	M20	5 ... 9	19 00 000 5080	<table border="1"> <thead> <tr> <th>Outer cable Ø</th> <th>SW</th> <th>E</th> <th>Nm</th> </tr> </thead> <tbody> <tr><td>5 ... 9 mm</td><td>22</td><td>24.4</td><td>10</td></tr> <tr><td>5 ... 12 mm</td><td>22</td><td>24.4</td><td>10</td></tr> <tr><td>6 ... 12 mm</td><td>22</td><td>24.4</td><td>10</td></tr> <tr><td>10 ... 14 mm</td><td>24</td><td>26.4</td><td>10</td></tr> <tr><td>9 ... 16 mm</td><td>30</td><td>33.5</td><td>12</td></tr> <tr><td>9 ... 18 mm</td><td>30</td><td>33.5</td><td>12</td></tr> <tr><td>13 ... 18 mm</td><td>30</td><td>33.5</td><td>12</td></tr> <tr><td>13 ... 20 mm</td><td>40</td><td>44</td><td>15</td></tr> <tr><td>13 ... 25 mm</td><td>40</td><td>44</td><td>15</td></tr> <tr><td>18 ... 25 mm</td><td>40</td><td>44</td><td>15</td></tr> <tr><td>20 ... 26 mm</td><td>50</td><td>55</td><td>15</td></tr> <tr><td>22 ... 32 mm</td><td>50</td><td>55</td><td>15</td></tr> <tr><td>20 ... 32 mm</td><td>50</td><td>55</td><td>15</td></tr> <tr><td>32 ... 38 mm</td><td>57</td><td>60</td><td>24</td></tr> </tbody> </table>	Outer cable Ø	SW	E	Nm	5 ... 9 mm	22	24.4	10	5 ... 12 mm	22	24.4	10	6 ... 12 mm	22	24.4	10	10 ... 14 mm	24	26.4	10	9 ... 16 mm	30	33.5	12	9 ... 18 mm	30	33.5	12	13 ... 18 mm	30	33.5	12	13 ... 20 mm	40	44	15	13 ... 25 mm	40	44	15	18 ... 25 mm	40	44	15	20 ... 26 mm	50	55	15	22 ... 32 mm	50	55	15	20 ... 32 mm	50	55	15	32 ... 38 mm	57	60	24
	Outer cable Ø	SW	E		Nm																																																											
	5 ... 9 mm	22	24.4		10																																																											
	5 ... 12 mm	22	24.4		10																																																											
	6 ... 12 mm	22	24.4		10																																																											
	10 ... 14 mm	24	26.4		10																																																											
	9 ... 16 mm	30	33.5		12																																																											
	9 ... 18 mm	30	33.5		12																																																											
	13 ... 18 mm	30	33.5		12																																																											
	13 ... 20 mm	40	44		15																																																											
	13 ... 25 mm	40	44		15																																																											
	18 ... 25 mm	40	44		15																																																											
	20 ... 26 mm	50	55		15																																																											
	22 ... 32 mm	50	55		15																																																											
	20 ... 32 mm	50	55		15																																																											
	32 ... 38 mm	57	60		24																																																											
M20	5 ... 12	19 00 000 5081																																																														
M20	6 ... 12	19 00 000 5082																																																														
M20	10 ... 14	19 00 000 5084																																																														
M25	9 ... 16	19 00 000 5090																																																														
M25	9 ... 18	19 00 000 5091																																																														
M25	13 ... 18	19 00 000 5092																																																														
M32	13 ... 20	19 00 000 5094																																																														
M32	13 ... 25	19 00 000 5095																																																														
M32	18 ... 25	19 00 000 5096																																																														
M40	20 ... 26	19 00 000 5097																																																														
M40	20 ... 32	19 00 000 5099																																																														
M40	22 ... 32	19 00 000 5098																																																														
M50	32 ... 38	19 00 000 5086																																																														





Accessories

Identification	Size	Clamping range (mm)	Part number	Drawing (dimensions in mm)																																				
Han® CGM-M-Rail, Cable gland, Railway version, IP68	M20	7 ... 10	19 00 000 7120	<table border="1"> <thead> <tr> <th>Outer cable ø</th> <th>SW</th> <th>E</th> <th>Nm</th> </tr> </thead> <tbody> <tr> <td>7 ... 10 mm</td> <td>22/24</td> <td>26.4</td> <td>6</td> </tr> <tr> <td>10 ... 14 mm</td> <td>22/24</td> <td>26.4</td> <td>6</td> </tr> <tr> <td>11 ... 14.5 mm</td> <td>27/30</td> <td>32.8</td> <td>7</td> </tr> <tr> <td>14.5 ... 18 mm</td> <td>27/30</td> <td>32.8</td> <td>7</td> </tr> <tr> <td>16 ... 20.5 mm</td> <td>36/40</td> <td>43.9</td> <td>8</td> </tr> <tr> <td>20.5 ... 35 mm</td> <td>36/40</td> <td>43.9</td> <td>8</td> </tr> <tr> <td>21 ... 26.5 mm</td> <td>46/50</td> <td>54.9</td> <td>8</td> </tr> <tr> <td>26.5 ... 32 mm</td> <td>46/50</td> <td>54.9</td> <td>8</td> </tr> </tbody> </table>	Outer cable ø	SW	E	Nm	7 ... 10 mm	22/24	26.4	6	10 ... 14 mm	22/24	26.4	6	11 ... 14.5 mm	27/30	32.8	7	14.5 ... 18 mm	27/30	32.8	7	16 ... 20.5 mm	36/40	43.9	8	20.5 ... 35 mm	36/40	43.9	8	21 ... 26.5 mm	46/50	54.9	8	26.5 ... 32 mm	46/50	54.9	8
	Outer cable ø	SW	E		Nm																																			
	7 ... 10 mm	22/24	26.4		6																																			
	10 ... 14 mm	22/24	26.4		6																																			
	11 ... 14.5 mm	27/30	32.8		7																																			
	14.5 ... 18 mm	27/30	32.8		7																																			
	16 ... 20.5 mm	36/40	43.9		8																																			
	20.5 ... 35 mm	36/40	43.9		8																																			
21 ... 26.5 mm	46/50	54.9	8																																					
26.5 ... 32 mm	46/50	54.9	8																																					
M20	10 ... 14	19 00 000 7121																																						
M25	11 ... 14.5	19 00 000 7122																																						
M25	14.5 ... 18	19 00 000 7123																																						
M32	16 ... 20.5	19 00 000 7124																																						
M32	20.5 ... 25	19 00 000 7125																																						
M40	21 ... 26.5	19 00 000 7126																																						
M40	26.5 ... 32	19 00 000 7127																																						



Outer cable ø	SW	E	Nm
7 ... 10 mm	22/24	26.4	6
10 ... 14 mm	22/24	26.4	6
11 ... 14.5 mm	27/30	32.8	7
14.5 ... 18 mm	27/30	32.8	7
16 ... 20.5 mm	36/40	43.9	8
20.5 ... 35 mm	36/40	43.9	8
21 ... 26.5 mm	46/50	54.9	8
26.5 ... 32 mm	46/50	54.9	8



## Technical characteristics

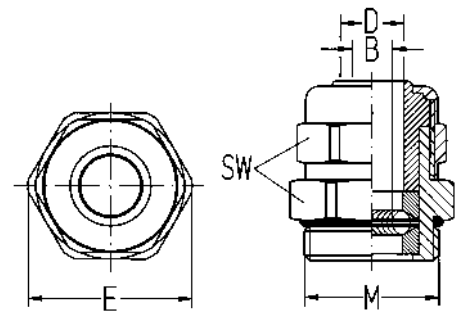
Degree of protection acc. to IEC IP68  
60529

## Technical characteristics

Material (cable glands)  
RoHS

Metal  
compliant with exemption

Identification	Size	Clamping range (mm)	Part number	Drawing (dimensions in mm)			
				Outer cable Ø	SW	E	Shielding Ø B
Cable gland, EMC version, IP68	M20	4 ... 6.5	19 62 000 5081	6.5 ... 9.5	22	24.4	3.5 ... 8.5
	M20	6.5 ... 9.5	19 62 000 5080	4 ... 6.5	22	24.4	2.5 ... 6.5
	M20	7 ... 10.5	19 62 000 5082	7 ... 10.5	22	24.4	6.5 ... 10.5
	M20	9 ... 13	19 62 000 5084	9 ... 13	22	24.4	6.5 ... 10.5
	M25	6.5 ... 9.5	19 62 000 5090	6.5 ... 9.5	22	31.2	3 ... 8
	M25	9 ... 13	19 62 000 5092	9 ... 13	28	31.2	4.8 ... 8
	M32	11.5 ... 15.5	19 62 000 5094	11.5 ... 15.5	35	38.5	8 ... 13.5
	M32	14 ... 18	19 62 000 5096	14 ... 18	35	38.5	9 ... 14.5
	M40	17 ... 20.5	19 62 000 5097	17 ... 20.5	43	47.3	15 ... 20
	M40	20 ... 25	19 62 000 5098	20 ... 25	43	47.3	15 ... 20




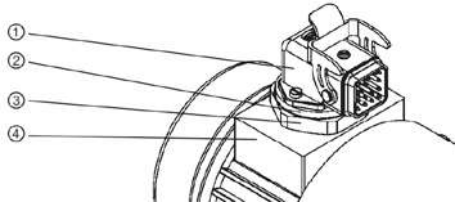
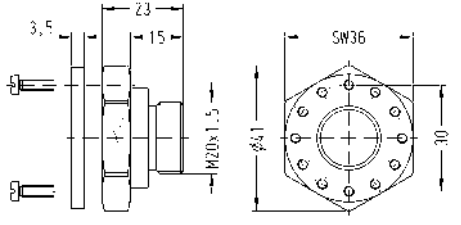




Accessories


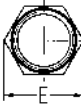
## Technical characteristics

Material (accessories) Thermoplastic, Metal  
 Colour (accessories) Black

## Technical characteristics

RoHS compliant with exemption, compliant

Identification	Size	Reduced size	Part number	Drawing (dimensions in mm)
Han A®, Adapter, for motor connection 	M20		19 20 000 9962	 <p>① Han® 3 A                      ② Seal                      ③ Adapter Han® 3 A                      ④ Housing for motor application</p> 
Dummy plugs 	M32 M40		19 00 000 5172 19 00 000 5173	  <p>M32: Ø 35 mm                      M40: Ø 46.2 mm</p>
Reduced size 	M20 M32 M32	M16 M20 M25	19 00 000 5060 19 00 000 5067 19 00 000 5068	

Identification	Size	Reduced size	Part number	Drawing (dimensions in mm)
Reduced size, With O-ring	M32 M32	M20 M25	19 00 000 5066 19 00 000 5069	
Dummy plugs, With O-ring	M20 M25 M32 M40		19 00 000 5070 19 00 000 5071 19 00 000 5072 19 00 000 5073	  <p>                         M20: SW 22; E 25.4                          M25: SW 28; E 32.3                          M32: SW 35; E 40.4                          M40: SW 44; E 50.8                     </p>


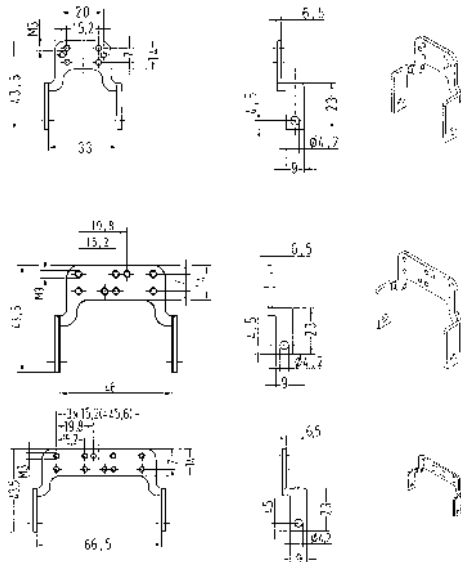

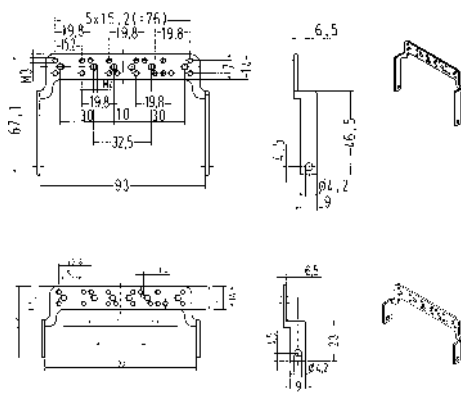
Accessories


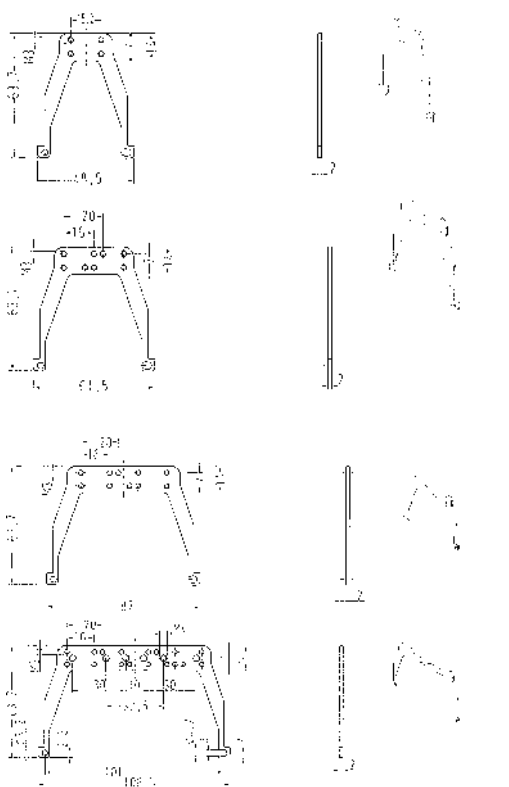

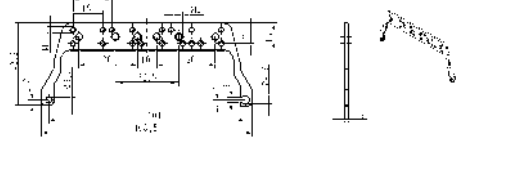

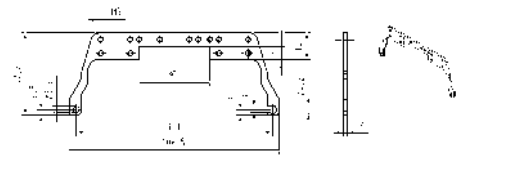

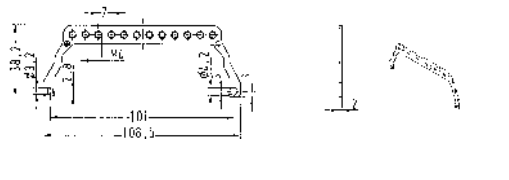
## Technical characteristics

Material (accessories) Steel, zinc plated

## Technical characteristics

RoHS compliant

Identification	Size	Part number	Drawing (dimensions in mm)
<p>Han E®, Han® EE, Han DD®, Han-Snap®, Shielding frame, for bulkhead mounted housings, for hoods, high construction,</p> <p>Pack contents: Ground terminal frame with M4 screws for fixing at insert</p> 	<p>06 B 10 B 16 B</p>	<p>09 00 000 5206 09 00 000 5207 09 00 000 5208</p>	
<p>Han E®, Han® EE, Han DD®, Han-Snap®, Shielding frame, for bulkhead mounted housings, for hoods, high construction, 24 B,</p> <p>Pack contents: Ground terminal frame with M4 screws for fixing at insert</p> 	<p>24 B 24 B</p>	<p>09 00 000 5210 09 00 000 5280</p>	

Identification	Size	Part number	Drawing (dimensions in mm)
<p>Han-Modular®, Shielding frame, for bulkhead mounted housings</p> 	<p>06 B 10 B 16 B 24 B L32 B</p>	<p>09 00 000 5256 09 00 000 5257 09 00 000 5258 09 00 000 5211 09 00 032 5201</p>	
<p>Han-Modular®, Shielding frame, for bulkhead mounted housings, for hoods, high construction</p> 	<p>24 B</p>	<p>09 00 000 5298</p>	
<p>Han-Quintax®, Shielding frame, for bulkhead mounted housings, for hoods, high construction</p> 	<p>24 B</p>	<p>09 00 000 5235</p>	
<p>Han-Modular®, PE bracket, for bulkhead mounted housings, for hoods, high construction</p> 	<p>24 B</p>	<p>09 00 000 5209</p>	

## Technical characteristics

## Technical characteristics

Material (accessories) Steel, zinc plated

RoHS compliant

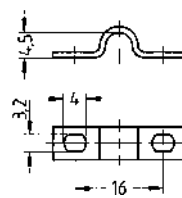
Identification	Cable diameter (mm)	Part number	Drawing (dimensions in mm)
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Clamp, for shield frames

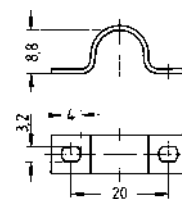


5  
10

09 00 000 5341  
09 00 000 5342



Cable diameter 5 mm



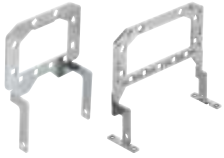
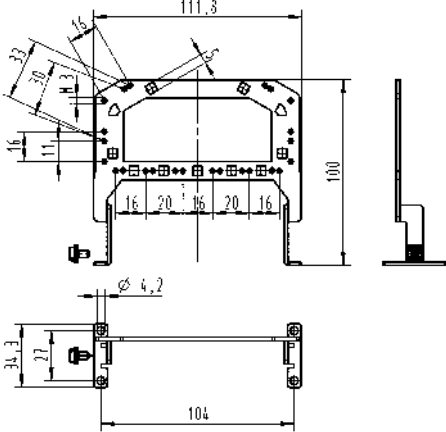

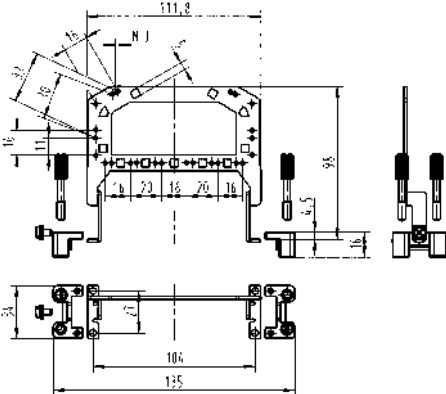
Cable diameter 10 mm

## Technical characteristics

Material (accessories)      Metal

## Technical characteristics

Surface (accessories)      Zinc plated  
RoHS                              compliant

Identification	Size	Part number	Drawing (dimensions in mm)
<p>Grip frame</p>  <p>Can only be used with screw adapter!</p>	<p>16 B 24 B</p>	<p>09 00 016 5603 09 00 024 5601</p>	
<p>Grip frame, With screw adapter and screw to use in connection with 09 00 000 5602</p> 	<p>16 B 24 B</p>	<p>09 00 016 5612 09 00 024 5611</p>	





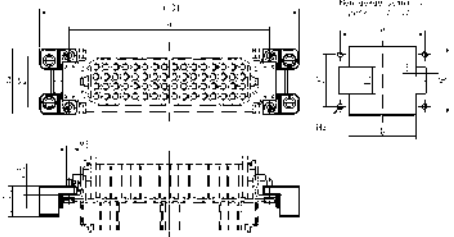

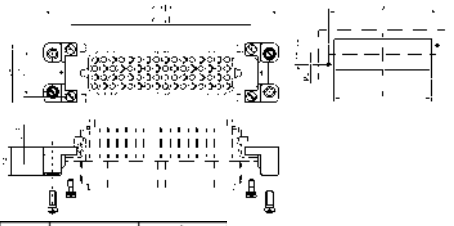


## Features

- Grip frame suitable for Han® 64 D / Han® 108 DD / Han® 24 E / Han® 24 ES / Han® 24 ESS / Han® 46 EE
- Multiple shield connections via grip frame
- Cable can be fixed with clamps or cable tie

## Technical characteristics

Material (accessories)	Zinc die-cast
Surface (accessories)	Copper-plated, Nickel plated compliant
RoHS	

Identification	Part number	Drawing (dimensions in mm)															
<p>Screw adapter, Top part, With fixing screw</p> 	09 00 000 5601																
<p>Screw adapter, Bottom part</p> 	09 00 000 5602	 <table border="1"> <thead> <tr> <th></th> <th>a</th> <th>b</th> </tr> </thead> <tbody> <tr> <td>6 B</td> <td>44</td> <td>35</td> </tr> <tr> <td>10 B</td> <td>57</td> <td>48</td> </tr> <tr> <td>16 B</td> <td>77,5</td> <td>68,5</td> </tr> <tr> <td>24 B</td> <td>104</td> <td>95</td> </tr> </tbody> </table>		a	b	6 B	44	35	10 B	57	48	16 B	77,5	68,5	24 B	104	95
	a	b															
6 B	44	35															
10 B	57	48															
16 B	77,5	68,5															
24 B	104	95															
<p>Screw adapter, Bottom part, With fixing screw</p> 	09 00 000 5603	 <table border="1"> <thead> <tr> <th></th> <th>a</th> <th>b</th> </tr> </thead> <tbody> <tr> <td>6 B</td> <td>65</td> <td>52</td> </tr> <tr> <td>10 B</td> <td>78</td> <td>65</td> </tr> <tr> <td>16 B</td> <td>98,5</td> <td>85,5</td> </tr> <tr> <td>24 B</td> <td>125</td> <td>112</td> </tr> </tbody> </table>		a	b	6 B	65	52	10 B	78	65	16 B	98,5	85,5	24 B	125	112
	a	b															
6 B	65	52															
10 B	78	65															
16 B	98,5	85,5															
24 B	125	112															

## Features

- Use of standard inserts or Han-Modular® hinged frames
- Pre-assembled fixing brackets
- Simple and quick assembly
- 36 coding options

## Technical characteristics

Material (accessories)	Metal, Thermoplastic
Surface (accessories)	Zinc plated
RoHS	compliant with exemption

Identification	Size	Part number	Drawing (dimensions in mm)
Grip frame, with fixing brackets	06 B	09 00 006 5610	
	10 B	09 00 010 5610	
	16 B	09 00 016 5610	
	24 B	09 00 024 5610	
	32 B	09 00 032 5610	
Panel mounting parts, Pack contents: Supplied as a pair		09 00 000 5614	



## Features

- Guide pins and bushes for secure mating of hood and housing
- Can also be used for coding
- Are used in the hinged frame instead of M6 fixing screws


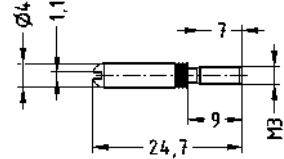
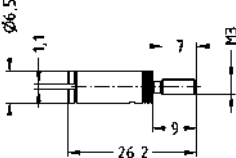
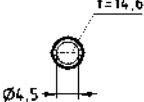

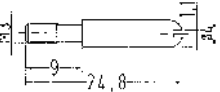
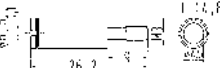

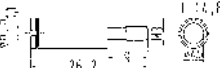

## Technical characteristics

Material (accessories)


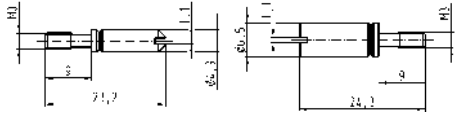
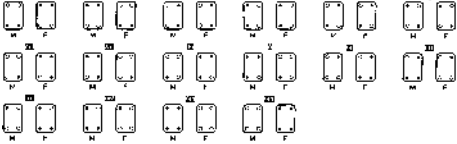
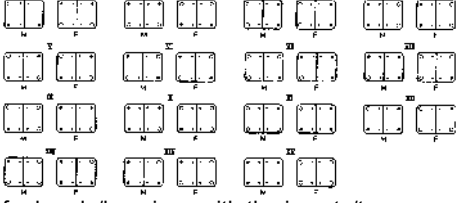

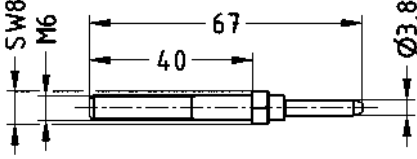

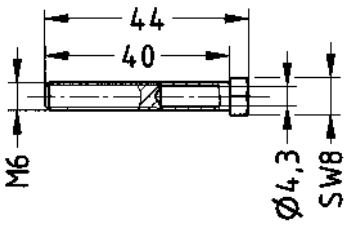

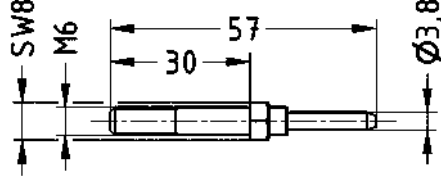
Steel, zinc plated, Stainless steel

RoHS

compliant with exemption, compliant

Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
Coding, With guide pins/bushes, for application "insert with screw adapter" with/ without grip frame 	09 33 000 9808	09 33 000 9809	  
Coding, With guide pins/bushes, for application "insert in hood/housing" 	09 33 000 9908	09 33 000 9909	 
Han-Modular®, Coding, With guide pins/bushes, for application "insert with screw adapter" with/ without grip frame  <p>Please order 4 pieces for one connector.</p>	09 14 000 9981	09 14 000 9982	 

Accessories

Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
<p>Han-Modular®, Coding, With guide pins/bushes, for application "insert in hood/housing"</p>  <p>Please order 4 pieces for one connector.</p>	09 14 000 9908	09 14 000 9909	  <p>for hoods/housings with one insert/one frame</p>  <p>for hoods/housings with two inserts/two frames</p> <ul style="list-style-type: none"> <li>◆ Guide pin</li> <li>○ Guide bush</li> <li>+ Fixing screw</li> <li>M - male insert</li> <li>F - female insert</li> </ul>
<p>Han® HPR enlarged, Guide pin, for bulkhead mounted housings</p> 	09 40 000 9811		
<p>Han® HPR enlarged, Guide bush, for bulkhead mounted housings</p> 		09 40 000 9812	
<p>Han® HPR enlarged, Guide pin, for hoods</p> 	09 40 000 9906		

Identification	Part number		Drawing (dimensions in mm)
	Male	Female	
Han® HPR enlarged, Guide bush, for hoods		09 40 000 9907	<p>Technical drawing of a guide bush. The drawing shows a cylindrical component with a threaded section on the left. The total length is 34 mm, and the length of the threaded section is 30 mm. The thread is M6. The outer diameter is <math>\varnothing 4,3</math> mm. The drawing also indicates a hexagonal base with a width of SW8.</p>

Accessories








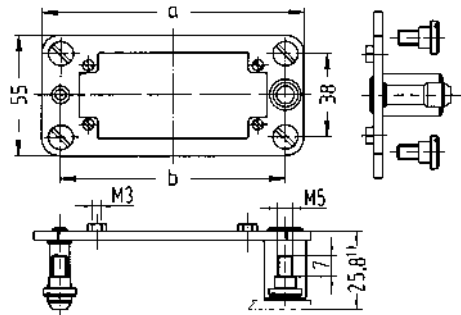
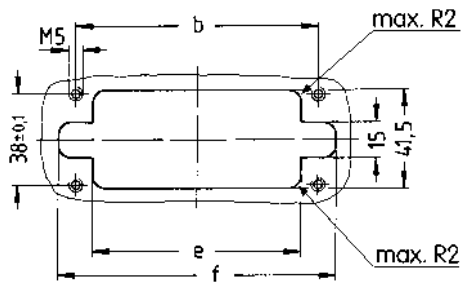


## Features

- Suitable for all inserts of the series Han E®, Han E® HMC, Han EE®, Han EE® HMC, Han EEE®, Han EEE® HMC, Han® ES, Han D® (size B), Han D® HMC, Han DD®, Han DD® HMC, Han-Com®, Han® HsB, Han-Modular®
- Due to the floating system of the docking frame the PE connection of the mounting base has to be installed separately.
- Inserts are protected against mechanical damage

## Technical characteristics

Mating cycles	≥500
Mating cycles with other HMC components	≥10000
Material (accessories)	Stainless steel
RoHS	compliant with exemption


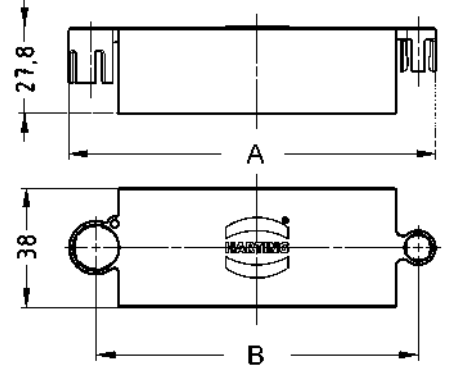
Identification	Size	Part number	Drawing (dimensions in mm)
<p>Docking frame, Pack contents: 1 frame, 4 cheese head shoulder screws (Steel, zinc plated) to fix the docking frame</p>  <p>Pull-in-range x-axis: ± 1.5 mm Pull-in-range y-axis: ± 1.5 mm</p>	<p>06 B 10 B 16 B 24 B</p>	<p>09 30 006 1704 09 30 010 1704 09 30 016 1704 09 30 024 1704</p>	 <p>Distance for electrical and FO contacts max. 27 mm; for Han-Modular® series max. 26.5 mm</p> <p>6 B: a=86; b=69 10 B: a=99; b=82 16 B: a= 119.5; b= 102.5 24 B: a=146; b=129</p>  <p>6 B: b= 69; e= 54.5; f= 84 10 B: b= 82; e= 67.5; f= 97 16 B: b= 102.5; e= 88; f= 117.5 24 B: b= 129; e= 114.5; f= 144</p>

## Technical characteristics

Limiting temperature -40 ... +125 °C  
 Degree of protection acc. to IEC IP20  
 60529  
 Material (accessories) Thermoplastic  
 Material flammability class acc. to UL 94 V-0

## Specifications and approvals

DIN EN 45545-2 R22: HL1, HL2, HL3  
 DIN EN 45545-2 R23: HL1, HL2, HL3

Identification	Size	Part number	Drawing (dimensions in mm)															
Protection cover, for Han® docking frame, IP20 	06 B	09 30 006 5418	 <table border="1"> <thead> <tr> <th></th> <th>A</th> <th>B</th> </tr> </thead> <tbody> <tr> <td>6 B</td> <td>83.3 mm</td> <td>69 mm</td> </tr> <tr> <td>10 B</td> <td>96.3 mm</td> <td>82 mm</td> </tr> <tr> <td>16 B</td> <td>116.8 mm</td> <td>102.5 mm</td> </tr> <tr> <td>24 B</td> <td>143.3 mm</td> <td>129 mm</td> </tr> </tbody> </table>		A	B	6 B	83.3 mm	69 mm	10 B	96.3 mm	82 mm	16 B	116.8 mm	102.5 mm	24 B	143.3 mm	129 mm
		A		B														
	6 B	83.3 mm		69 mm														
	10 B	96.3 mm		82 mm														
	16 B	116.8 mm		102.5 mm														
24 B	143.3 mm	129 mm																
10 B	09 30 010 5418																	
16 B	09 30 016 5418																	
24 B	09 30 024 5418																	

Number of contacts

**3+**

Accessories



## Features

- 3 PE-terminations
- Screws with ± head
- Self lifting washer
- Suitable for use with all inserts of the Han® 6 B to 24 B size (except Han® ESS-inserts)
- Suitable in hoods high construction

## Technical characteristics

Number of contacts	3
Contact resistance	≤3 mΩ
Material (contacts)	Copper alloy
RoHS	compliant

## Details

The PE-multiple ground connection may be used to terminate three PE-wires on one connector. Each PE-wire can be terminated and removed separately.  
(acc. VDE 0113 EN 60204 Pt. 14.1.1)

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	Drawing (dimensions in mm)
PE Multiple ground connection, Pack contents: Distributor, Fixing screw M4 with washer Contact surface: Nickel plated	0.5 ... 2.5	09 33 000 9992	




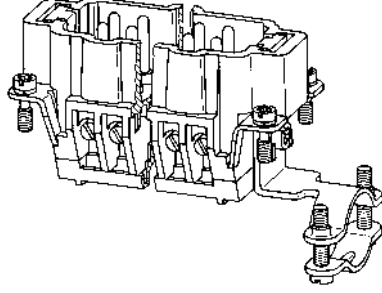

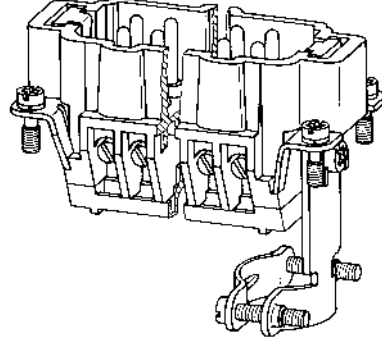
## Technical characteristics

RoHS compliant

## Details

When using inserts without hoods or housings and requiring a strain relief this system is suitable for all rectangular connectors of series Han DD®, Han® 40-64 D, Han E®, Han® ES, Han Hv E®, Han® Hv ES, Han® EE, Han® K 8/24.

Fitted at the opposite end to the PE-termination.

Identification	Clamping range (mm)	Part number	Drawing (dimensions in mm)
Strain relief clamp, Angled, Pack contents: Strain relief clamp with 2 screws M3, Fixing screw M4 with washer 	9 ... 19	09 00 000 5339	
Strain relief clamp, Straight, Pack contents: Strain relief clamp with 2 screws M3, Fixing screw M4 with washer 	9 ... 19	09 00 000 5340	

## Features


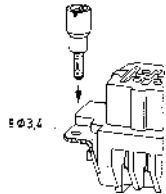

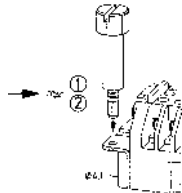
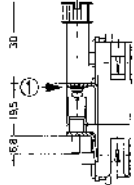
- Useable for inserts without hoods or housings and requiring a strain relief
- Suitable for all rectangular connectors of the Han® series Han® 6 B, 10 B, 16 B, 24 B

## Technical characteristics

RoHS compliant with exemption

## Details

When using inserts without hoods or housings and requiring a locking facility this system is suitable for all rectangular connectors of the Han® series size 6 ... 24 B. For each connector we recommend two screw pins and two bushes as shown which are fitted diagonally to the inserts instead of the ordinary fixing screws. Holes for fixing to be drilled as shown.

Identification		Part number	Drawing (dimensions in mm)
Bush		09 33 000 9912	
Order 2 pieces for one connector.			
Knurled screw		09 33 000 9910	
Order 2 pieces for one connector.			
			
			Mounting example

## Technical characteristics








Material (accessories)      Stainless steel




## Technical characteristics

RoHS      compliant, compliant with exemption

Identification	Size	Part number	Drawing (dimensions in mm)
Han-Modular® Compact, Fixing screws	ST 2.9x9.5 F-H	09 12 000 9921	
			
Fixing screws	M3	09 16 000 9903	
			
Fixing screws, With seal, Han® 3 A	M3	09 20 000 9918	
			
Fixing screws, Han® 3 A	M3	09 20 000 9995	
			
Toggle locking screw, Han® 6/10/16/24 HPR		09 40 000 9931	
			
Toggle locking screw, 3 HPR		09 40 000 9933	
			

Accessories

Identification	Size	Part number	Drawing (dimensions in mm)
Contact screw, Han A® 		09 30 000 9997	
for PE in Han® Q 5/0, Q 7/0 PE screw, Han-Modular® hinged frames 	M3 M4	09 14 000 9953 09 14 000 9954	
PE screw, Han A®, Han® 15 D, Han® 25 D 	M3.5	09 20 000 9919	
PE screw 	M4	09 33 000 9925	
PE screw, Han-Com®, Han® HsB 	M5	09 33 000 9926	
Countersunk flat 		09 70 000 9902	
Countersunk flat, With seal 		09 70 000 9905	

Identification	Size	Part number	Drawing (dimensions in mm)
Locking screw, 3 HPR 	M4	09 40 000 9929	
Locking screw, Han® 6/10/16/24 HPR 	M6	09 40 000 9932	
Locking screw, 48 HPR 	M6	09 40 000 9937	

Accessories







## Technical characteristics

Limiting temperature -40 ... +125 °C  
 Degree of protection acc. to IEC IP65  
 60529

## Technical characteristics

Material (accessories) Steel, zinc plated, Thermoplastic, Metal  
 RoHS compliant, compliant with exemption

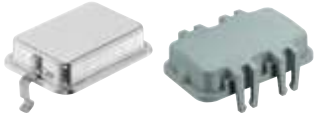
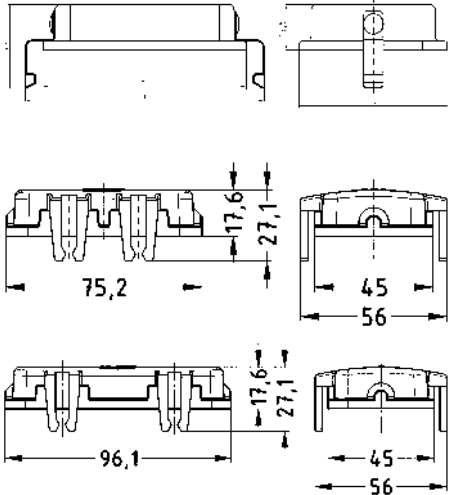

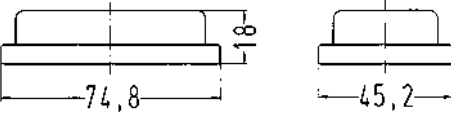

Identification	Size	Part number	Drawing (dimensions in mm)
Bearing pedestal, for Han® 10 A, 16 A, 32 A, 6 B, 10 B, 16 B, 24 B 		09 30 000 9964	
Han A®, Protection cover, for bearing pedestal, Thermoplastic, IP65 	10 A 16 A	09 20 010 5410 09 20 016 5410	
Han® B, Protection cover, for bearing pedestal, Metal, IP65 	06 B 10 B 16 B 24 B	09 30 006 5403 09 30 010 5404 09 30 016 5404 09 30 024 5404	
Han® B, Protection cover, for bearing pedestal, Thermoplastic, IP65 	06 B 10 B 16 B 24 B	09 30 006 5410 09 30 010 5410 09 30 016 5410 09 30 024 5410	

Technical characteristics


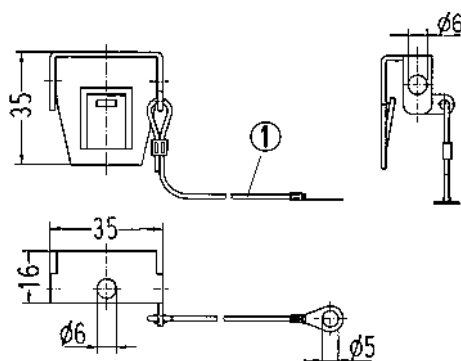

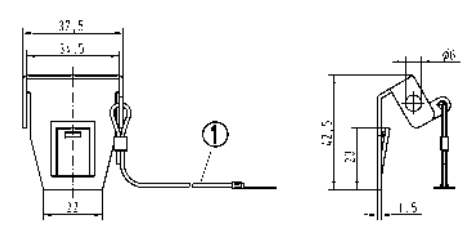

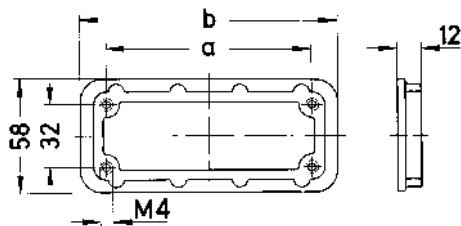

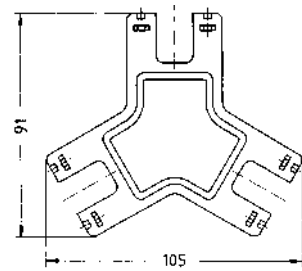

Material (accessories) Metal, Thermoplastic


Technical characteristics

RoHS compliant

Identification	Size	Part number	Drawing (dimensions in mm)
<p>Han® B, Dust protection cover, for hoods, With board locks</p> 	<p>06 B 10 B 16 B</p>	<p>09 30 006 5401 09 30 010 5401 09 30 016 5401</p>	
<p>Han® B, Dust protection cover, for housings</p> 	<p>10 B 16 B 24 B</p>	<p>09 30 010 5406 09 30 016 5406 09 30 024 5406</p>	
<p>Han® HPR, Dust protection cover, for housings</p> 	<p>03 HPR 06 HPR 10 HPR 16 HPR 24 HPR</p>	<p>09 40 003 5406 09 40 006 5406 09 40 010 5406 09 40 016 5406 09 40 024 5406</p>	

Accessories

Identification	Size	Part number	Drawing (dimensions in mm)
<p>Locking element, With cord, for Han® 10/16/24 B housings bulkhead mounting with Han-Easy Lock® double levers</p> 		09 30 000 9986	 <p>① Length 120 mm</p>
<p>Locking element, With cord, for Han® 10/16/24 B with double metal levers</p> 		09 30 000 9987	 <p>① Length 120 mm</p>
<p>Mounting frames, for standard hoods/housings</p> 	06 B 10 B 16 B 24 B	09 40 000 9921 09 40 000 9922 09 40 000 9923 09 40 000 9924	 <p>6 B: a=70; b=96 10 B: a=83; b=109 16 B: a=103; b=129 24 B: a=130; b=156</p>
<p>Frame, for custom test adapters, Pack contents: 2 assembly plates, 12 nuts for insertion</p> 		09 38 000 9901	
<p>Label, According to CSA-approval, Pack contents: 50 labels per sheet</p> 		09 30 000 9958	





Identification	Size	Part number	Drawing (dimensions in mm)
<p>Contact lubricant DvDA, for Han® contacts, Pack contents: Vaporizer (40 ml), Handling instruction</p>  <p>Applicable onto Han® contacts to reduce mating and unmating forces. Content: Preperation of perfluorpolyethers</p>		09 99 000 0829	

Contents	Page
Hand crimping tools for Han® standard contacts.....	<b>Han 90.4</b>
Hand crimping tools for fibre optic contacts.....	<b>Han 90.10</b>
Hand crimping tools for Han-Fast® Lock contacts.....	<b>Han 90.11</b>
Hand crimping tools for wire end ferrules.....	<b>Han 90.12</b>
Hand crimping tools for D-Sub contacts.....	<b>Han 90.13</b>
Hand crimping tools for coaxial contacts.....	<b>Han 90.14</b>
Pneumatic crimping tool for Han® standard contacts.....	<b>Han 90.16</b>
Battery crimping cool for Han® standard contacts.....	<b>Han 90.17</b>
Hydraulic crimping tools for Han® TC high current contacts.....	<b>Han 90.18</b>
Crimping machine TC-C01.....	<b>Han 90.20</b>
Crimping machine TK-M.....	<b>Han 90.22</b>
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Hydraulic Punch Driver.....	<b>Han 90.26</b>
Assembly tools.....	<b>Han 90.27</b>
Removal tools.....	<b>Han 90.31</b>
Stripping tools.....	<b>Han 90.34</b>

# Overview Han<sup>®</sup> crimping tools







Tools

Crimp contacts Series	Part number				mm <sup>2</sup>	AWG	Crimping tools							Tools		
	male contact silver plated	female contact silver plated	male contact gold plated	female contact gold plated			09 99 000 0888	09 99 000 0110	09 99 000 0021	09 99 000 0001	09 99 000 0377	09 99 000 0990	20 99 000 1035			
<b>Han D<sup>®</sup></b> Signal contacts 09 15 000 .... 	6107	6207	6127	6227	0.14 - 0.37	26 - 22	x			x					09 99 000 0012	
	6104	6204	6124	6224					x	x	x			x		
	6103	6203	6123	6223			0.5	20	x	x	x	x		x		
	6105	6205	6125	6225			0.75	18	x	x	x	x		x		
	6102	6202	6122	6222			1.0	18	x	x	x	x		x		
	6101	6201	6121	6221			1.5	16	x	x	x	x		x		
	6106	6206	6126	6226			2.5	14	x			x				
<b>Han D<sup>®</sup></b> F.O. contacts 20 10 001 ....	Male contact 3211 3212 / 3213		Female contact 3221 3222		1 mm POF								x			
<b>Han E<sup>®</sup></b> Power contacts 09 33 000 .... 	6127	6227	6117	6217	0.14 - 0.37	26 - 22	x			x				09 99 000 0319		
	6121	6220	6122	6222			0.5	20	x	x	x	x			x	
	6114	6214	6115	6215			0.75	18	x	x	x	x			x	
	6105	6205	6118	6218			1.0	18	x	x	x	x			x	
	6104	6204	6116	6216			1.5	16	x	x	x	x			x	
	6102	6202	6123	6223			2.5	14	x	x	x	x			x	
	6106	6206					3.0	12	x	x		x			x	
	6107	6207	6119	6221			4.0	12	x	x		x			x	
<b>Han E<sup>®</sup></b> F.O. contacts 20 10 001 ....	Male contact 3311		Female contact 3321		1 mm POF								x			
<b>Han<sup>®</sup> C</b> Power contacts 09 32 000 .... 	6104	6204			1.5	16	x	x		x		x		09 99 000 0305 09 99 000 0381		
	6105	6205					2.5	14	x	x		x			x	
	6107	6207					4.0	12	x	x		x			x	
	6108	6208					6.0	10					x			
	6109	6209					10.0	8					x			
<b>Han-Yellock<sup>®</sup></b> Power contacts 11 05 000 .... 	6101	6201	6121	6221	0.14 - 0.37	26 - 22	x			x				09 99 000 0319		
	6102	6202	6122	6222			0.5	20	x	x	x	x				
	6103	6203	6123	6223			0.75	18	x	x	x	x				
	6104	6204	6124	6224			1.0	18	x	x	x	x				
	6105	6205	6125	6225			1.5	16	x	x	x	x				
	6106	6206	6126	6226			2.5	14	x	x	x	x				
	6107	6207	6127	6227			3.0	12	x	x		x				
	6108	6208	6128	6228			4.0	12	x	x		x				
<b>Description</b>																
Locator Han D <sup>®</sup>	09 99 000 0311									x						
Locator Han E <sup>®</sup>	09 99 000 0310									x						
Locator Han <sup>®</sup> C	09 99 000 0308									x						
Locator Han-Yellock <sup>®</sup>	09 99 000 0341							x								
	09 99 000 0343								x							
	09 99 000 0342									x						

# Overview Han® crimping tools



Tools

Crimp contacts Series	Part number				mm <sup>2</sup>	AWG	Crimping machines									
	male contact silver plated	female contact silver plated	male contact gold plated	female contact gold plated			09 99 000 0314	09 99 000 0307	09 98 000 6901 1)	09 98 000 6902 1)	09 98 000 6903 1)	09 98 000 6907 1)	09 98 000 9001	09 98 000 9002	09 98 000 9003	
<b>Han D®</b> Signal contacts 09 15 000 ....  	6107	6207	6127	6227	0.14 - 0.37	26 - 22	x		x <sup>2)</sup>				x			
	6103	6203	6123	6223	0.5	20	x		x				x			
	6105	6205	6125	6225	0.75	18	x		x				x			
	6102	6202	6122	6222	1.0	18	x		x				x			
	6101	6201	6121	6221	1.5	16	x		x				x			
	6106	6206	6126	6226	2.5	14			x				x			
<b>Han E®</b> Power contacts 09 33 000 ....  	6127	6227	6117	6217	0.14 - 0.37	26 - 22	x			x <sup>2)</sup>					x	
	6121	6220	6122	6222	0.5	20	x			x					x	
	6114	6214	6115	6215	0.75	18	x			x					x	
	6105	6205	6118	6218	1.0	18	x			x					x	
	6104	6204	6116	6216	1.5	16	x			x					x	
	6102	6202	6123	6223	2.5	14	x			x					x	
	6106	6206			3.0	12	x			x					x	
6107	6207	6119	6221	4.0	12	x			x					x		
<b>Han-Yellock®</b> Power contacts 11 05 000 ....  	6101	6201	6121	6221	0.14 - 0.37	26 - 22							x			
	6102	6202	6122	6222	0.5	20							x			
	6103	6203	6123	6223	0.75	18							x			
	6104	6204	6124	6224	1.0	18							x			
	6105	6205	6125	6225	1.5	16							x			
	6106	6206	6126	6226	2.5	14							x			
	6107	6207	6127	6227	3.0	12							x <sup>3)</sup>			
	6108	6208	6128	6228	4.0	12							x <sup>3)</sup>			
<b>Han® C</b> Power contacts 09 32 000 ....  	6104	6204			1.5	16	x	x			x					x
	6105	6205			2.5	14	x	x			x					x
	6107	6207			4.0	12	x	x			x					x
	6108	6208			6.0	10		x			x					x
	6109	6209			10.0	8		x								x

1) TK-M basic machine 09 98 000 6900 is required  
 2) depending on the wire  
 3) only with modification 09 98 503 6900

Tools

## Details

The high end tool with best performance.

## Details




for wire gauges from 0.14 und 0.25 mm<sup>2</sup> please use the contacts 09 15 000 6107, 6207, 6127 or 6227.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	
Crimping tool, Han D®: 0.14 ... 2.5 mm <sup>2</sup> , Han E®: 0.14 ... 4 mm <sup>2</sup> , Han-Yellok®: 0.14 ... 4 mm <sup>2</sup> , Han® C: 1.5 ... 4 mm <sup>2</sup> , Pack contents: incl. locator, Handling instruction		09 99 000 0888	
Check gauge, for crimping tool 09 99 000 0888, for optional testing		09 99 000 0889	
Locator, Spare part, for crimping tool 09 99 000 0888		09 99 000 0887	
Locator, Han E®, Relay contacts	0.14 ... 4	09 99 000 0978	



## Details

for wire gauges from 0.14 und 0.25 mm<sup>2</sup> please use the contacts 09 15 000 6107, 6207, 6127 or 6227.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	
Crimping tool, Han D®: 0.14 ... 2.5 mm <sup>2</sup> , Han E®: 0.14 ... 4 mm <sup>2</sup> , Han-Yellok®: 0.14 ... 4 mm <sup>2</sup> , Han® C: 1.5 ... 4 mm <sup>2</sup> Please order locator separately.	0.14 ... 4	09 99 000 0001	
Locator, Han D®	0.14 ... 2.5	09 99 000 0311	
Locator, Han E®	0.14 ... 4	09 99 000 0310	
Locator, Han® C	1.5 ... 4	09 99 000 0308	
Locator, Han E®, Relay contacts	0.14 ... 4	09 99 000 0345	
Adjustment gauge, for four-indent crimping tools, Han D®, Han E®, Han® C, Han-Yellok®		09 99 000 0379	

## Details



Robust allrounder with very good performance.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number
Crimping tool, Han D <sup>®</sup> : 0.14 ... 1.5 mm <sup>2</sup> , Han E <sup>®</sup> : 0.5 ... 4 mm <sup>2</sup> , Han- <i>Yellock</i> <sup>®</sup> : 0.5 ... 4 mm <sup>2</sup> , Han <sup>®</sup> C: 1.5 ... 4 mm <sup>2</sup> , Pack contents: Locator Han <sup>®</sup> C, Locator Han E <sup>®</sup> , Locator Han D <sup>®</sup> , Please order Han- <i>Yellock</i> <sup>®</sup> separately.	0.14 ... 4	09 99 000 0110
Locator, Han- <i>Yellock</i> <sup>®</sup>		09 99 000 0341
Locator, Spare part, Han D <sup>®</sup> , Han E <sup>®</sup> , Han <sup>®</sup> C		09 99 000 0376



## Details

The service tool for on-site maintenance.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	
Service crimping tool, Han D®: 0.14 ... 1.5 mm <sup>2</sup> , Han E®: 0.5 ... 2.5 mm <sup>2</sup> , Han- <i>Yellock</i> ®: 0.5 ... 2.5 mm <sup>2</sup> , Pack contents: incl. locator, Please order Han- <i>Yellock</i> ® separately.	0.14 ... 2.5	09 99 000 0021	
Locator, Han- <i>Yellock</i> ®		09 99 000 0343	
Locator, Spare part, Han D®, Han E®		09 99 000 0022	

## Details

The professional tool for big cross-sections.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number
Crimping tool, Han® C: 4 ... 10 mm <sup>2</sup> , Pack contents: incl. locator	4 ... 10	09 99 000 0377
Locator, Spare part, for part number 09 99 000 0377, Han® C: 4 ... 10 mm <sup>2</sup>		09 99 000 0963
Locator, for part number 09 99 000 0377, Han® HsB: 4 ... 10 mm <sup>2</sup>		09 99 000 0985



## Details

The professional tool for crimping Han® HsB contacts.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number
Crimping tool, Han® HsB: 1.5 ... 4 mm <sup>2</sup> , Pack contents: incl. locator	1.5 ... 4	09 99 000 0986



Identification

Part number

Crimping tool,  
for FO connector (glass fibre),  
SC, F-SMA F-ST,  
A/F 3.8 mm, A/F 4.3 mm, A/F 4.95 mm  
for crimping of the strain relief

20 99 000 1031



Crimping tool,  
for FO connector (plastic fibre),  
SC, F-SMA F-ST,  
A/F 3 mm, A/F 4.95 mm, A/F 6.5 mm  
for crimping of the strain relief



20 99 000 1033



Crimping tool,  
for following 1 mm POF contacts,  
Han D®, Han E®, DIN 41626, Ferrule, F-SMA, -ST


20 99 000 1035



Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	
Crimping tool, Angled, for Han-Fast® Lock single contact	1.5 ... 2.5 4 ... 10	09 99 000 0876 09 99 000 0877	
Crimping tool, for Han-Fast® Lock single contact, incl. locator	1.5 ... 2.5 4 ... 10	09 99 000 0881 09 99 000 0831	

## Details

The tool for the professional processing of wire end ferrules according to DIN 46228.





Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	
Crimping tool, for wire end ferrules, acc. to DIN 46228	0.14 ... 2.5 4 ... 16	09 99 000 0970 09 99 000 0971	



Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	
Crimping tool, for 500 bandoliered standard contacts	0.09 ... 0.56	09 99 000 0169	
Crimping tool, for single stamped D-Sub contact	0.09 ... 0.56	09 99 000 0175	
Crimping tool, for turned male and female contact, 4 indent crimp in acc. to MIL 22 520/2-01	0.09 ... 0.82	09 99 000 0501	
Locator, for single D-Sub standard contacts		09 99 000 0531	
Locator, for single D-Sub standard contacts, 09 93 000 5576 + 09 93 000 5476		09 99 000 0897	

Tools

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	
Crimping tool, for turned male and female contact, 4 indent crimp in acc. to MIL 22 520/2-01	0.09 ... 0.82	09 99 000 0501	
D-Sub, Locator, for inner contact die		09 99 000 0507	 <p>                     Contacts                      09 69 182 x140 + 09 69 282 x140                      09 69 182 x230 + 09 69 282 x230                 </p>

Identification	Part number	
<p>Crimping tool, for coaxial contact, acc. to DIN 41626, for outer ferrule Please order crimp dies separately.</p>	<p>09 99 000 0503</p>	
<p>Crimp die, for D-Sub</p>	<p>09 99 000 0508</p>	 <p>Contacts 09 69 182 x140 + 09 69 282 x140 09 69 182 x230 + 09 69 282 x230 09 69 181 x140 + 09 69 281 x140 09 69 181 x141 + 09 69 281 x141 09 69 181 x230 + 09 69 281 x230</p>
<p>Crimp die, for D-Sub mixed</p>	<p>09 99 000 0515</p>	 <p>Contacts 09 69 181 x143 + 09 69 281 x143</p>
<p>Crimping tool, Crimp die included, for coaxial contact, acc. to DIN 41626</p>	<p>09 99 000 0194</p>	 <p>Contacts 09 14 000 6211 + 09 14 000 6111 09 14 000 6221 + 09 14 000 6121</p>

Identification

Part number

Pneumatic crimping tool,  
Han D®: 0.14 ... 2.5 mm<sup>2</sup>,  
Han E®: 0.14 ... 4 mm<sup>2</sup>,  
Han® C: 1.5 ... 4 mm<sup>2</sup>,

Pack contents:  
In plastic case,  
Locator Han® C,  
Locator Han E®,  
Locator Han D®,  
Adjustment gauge,  
Pneumatic tube,  
Operating instructions

09 99 000 0314



Pneumatic crimping tool,  
Han® C: 1.5 ... 10 mm<sup>2</sup>,

Pack contents:  
In plastic case,  
Locator Han® C,  
Pneumatic tube,  
Operating instructions,  
Adjustment gauge

09 99 000 0307



Table fixing,  
for part number 09 99 000 0307 and 09 99 000 0314

09 99 000 0309



Foot switch,  
for part number 09 99 000 0307 and 09 99 000 0314

09 99 000 0347



## Details




Fast, light, efficient – that's what crimping is all about today.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	
Battery crimping tool set, Han D <sup>®</sup> : 0.14 ... 1.5 mm <sup>2</sup> , Han E <sup>®</sup> : 0.5 ... 4 mm <sup>2</sup> , Han <sup>®</sup> C: 1.5 ... 4 mm <sup>2</sup> , Pack contents: Locator Han <sup>®</sup> C, Locator Han E <sup>®</sup> , Locator Han D <sup>®</sup> , Power supply	0.14 ... 4	09 99 000 0990	
Locator, Spare part, Han D <sup>®</sup> , for part number 09 99 000 0990	0.14 ... 1.5	09 99 000 0991	
Locator, Spare part, Han E <sup>®</sup> , for part number 09 99 000 0990	0.5 ... 4	09 99 000 0992	
Locator, Spare part, Han <sup>®</sup> C, for part number 09 99 000 0990	1.5 ... 4	09 99 000 0993	
Additional battery, for part number 09 99 000 0990		09 99 000 0994	

Tools

## Specifications and approvals

DIN 46235


Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	Drawing (dimensions in mm)
Battery hydraulic tool, Pressing force 60 kN, Crimp die acc. to DIN 46235 with pressing width 9 mm	10 ... 70	09 99 000 0850	
Hand hydraulic crimping tool, Pressing force 60 kN, Crimp die acc. to DIN 46235 with pressing width 9 mm	10 ... 70	09 99 000 0851	
Crimp die, for 60 kN tool, Pack contents: Supplied as a pair	10 16 25 35 50 70	09 99 000 0852 09 99 000 0853 09 99 000 0854 09 99 000 0855 09 99 000 0856 09 99 000 0857	

Cross-section	Pressing width	Identification	Contacts
10 mm <sup>2</sup>	9 mm	6	TC 70, TC 100, TC 250
16 mm <sup>2</sup>	9 mm	8	TC 70, TC 100, TC 200, TC 250
25 mm <sup>2</sup>	9 mm	10	TC 70, TC 100, TC 200, TC 250, TC 350
35 mm <sup>2</sup>	9 mm	12	TC 100, TC 200, TC 250, TC 350
50 mm <sup>2</sup>	9 mm	14	TC 200, TC 250, TC 350
70 mm <sup>2</sup>	9 mm	16	TC 200, TC 250, TC 350, TC 650

## Specifications and approvals

DIN 46235

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	Drawing (dimensions in mm)																																																
Battery hydraulic tool, Pressing force 120 kN, Crimp die acc. to DIN 46235 with pressing width 10 ... 14 mm	10 ... 240	09 99 000 0860																																																	
Hand hydraulic crimping tool, Pressing force 120 kN, Crimp die acc. to DIN 46235 with pressing width 10 ... 14 mm	10 ... 240	09 99 000 0861																																																	
Crimp die, for 120 kN tool, Pack contents: Supplied as a pair	10 16 25 35 50 70 95 120 150 185 240	09 99 000 0862 09 99 000 0863 09 99 000 0864 09 99 000 0865 09 99 000 0866 09 99 000 0867 09 99 000 0868 09 99 000 0869 09 99 000 0870 09 99 000 0871 09 99 000 0872	 <table border="1"> <thead> <tr> <th>Cross-section</th> <th>Pressing width</th> <th>Identification</th> <th>Contacts</th> </tr> </thead> <tbody> <tr> <td>10 mm<sup>2</sup></td> <td>10 mm</td> <td>6</td> <td>TC 70, TC 100, TC 250</td> </tr> <tr> <td>16 mm<sup>2</sup></td> <td>10 mm</td> <td>8</td> <td>TC 70, TC 100, TC 200, TC 250</td> </tr> <tr> <td>25 mm<sup>2</sup></td> <td>10 mm</td> <td>10</td> <td>TC 70, TC 100, TC 200, TC 250, TC 350</td> </tr> <tr> <td>35 mm<sup>2</sup></td> <td>10 mm</td> <td>12</td> <td>TC 100, TC 200, TC 250, TC 350</td> </tr> <tr> <td>50 mm<sup>2</sup></td> <td>13 mm</td> <td>14</td> <td>TC 200, TC 250, TC 350</td> </tr> <tr> <td>70 mm<sup>2</sup></td> <td>13 mm</td> <td>16</td> <td>TC 200, TC 250, TC 350, TC 650</td> </tr> <tr> <td>95 mm<sup>2</sup></td> <td>14 mm</td> <td>18</td> <td>TC 350, TC 650</td> </tr> <tr> <td>120 mm<sup>2</sup></td> <td>14 mm</td> <td>20</td> <td>TC 350, TC 650</td> </tr> <tr> <td>150 mm<sup>2</sup></td> <td>10 mm</td> <td>22</td> <td>TC 650</td> </tr> <tr> <td>185 mm<sup>2</sup></td> <td>10 mm</td> <td>25</td> <td>TC 650</td> </tr> <tr> <td>240 mm<sup>2</sup></td> <td>10 mm</td> <td>28</td> <td>TC 650</td> </tr> </tbody> </table>	Cross-section	Pressing width	Identification	Contacts	10 mm <sup>2</sup>	10 mm	6	TC 70, TC 100, TC 250	16 mm <sup>2</sup>	10 mm	8	TC 70, TC 100, TC 200, TC 250	25 mm <sup>2</sup>	10 mm	10	TC 70, TC 100, TC 200, TC 250, TC 350	35 mm <sup>2</sup>	10 mm	12	TC 100, TC 200, TC 250, TC 350	50 mm <sup>2</sup>	13 mm	14	TC 200, TC 250, TC 350	70 mm <sup>2</sup>	13 mm	16	TC 200, TC 250, TC 350, TC 650	95 mm <sup>2</sup>	14 mm	18	TC 350, TC 650	120 mm <sup>2</sup>	14 mm	20	TC 350, TC 650	150 mm <sup>2</sup>	10 mm	22	TC 650	185 mm <sup>2</sup>	10 mm	25	TC 650	240 mm <sup>2</sup>	10 mm	28	TC 650
Cross-section	Pressing width	Identification	Contacts																																																
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## Features





- Basic unit of compact construction for pre-stripped wires (stranded wire)
- Easy handling due to well-arranged design
- for individual, turned male and female contacts
- Selective processing of male and female contacts
- Automatic contact feed
- Reproducible, top quality gas-tight crimp connections
- Non-slip, anti-vibration adjustable feet for setting the height
- Low noise level
- With carrying handle
- Removable electric and pneumatic supply connections
- Maintenance interval counter
- Minimal setup effort
- Stepless adjustment of the crimping depth
- Low follow-up costs for maintenance and repair
- Easy replacement of wearing components

## Details

Nominal voltage, max. 230 V  
Nominal frequency 50 Hz  
Power consumption ca.0.2 kW  
Pressure ca.6 bar  
Control system PLC  
Work cycle trigger Footswitch  
Work cycle 1 s  
Noise level ca.62 dB  
Crimp type Four-point crimping  
Contact feed Vibratory bowl feed  
Stroke counters Resettable daily counter and permanent counter  
Dimensions 345 x 230 x 400 mm  
Weight  $\geq$ 24 kg

**Pack contents:**  
2.0 m connection cable and grounding plug,  
2.0 m pneumatic hose,  
quick-release coupling and N6 plugin nipple,  
footswitch,  
carrying handle,  
operating instructions,  
declaration of conformity



Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	Drawing (dimensions in mm)
Crimping machine TC-C01, for Han D <sup>®</sup> contact	0.14 ... 2.5	09 98 000 9001	
Crimping machine TC-C01, for Han E <sup>®</sup> contact	0.14 ... 4	09 98 000 9002	
Crimping machine TC-C01, for Han <sup>®</sup> C contact	1.5 ... 10	09 98 000 9003	
Maintenance unit, Optional accessory		09 98 336 6851	







## Features

- Basic unit of compact construction
- Fast stripping and crimping in one operating step
- Easy handling due to well-arranged design
- Touchscreen controlling
- for individual, turned male and female contacts
- Selective processing of male and female contacts
- Contact magazine with filling control
- Reproducible, top quality gas-tight crimp connections
- Infinitely variable adjustment parameters (stripping depth, stripping length, crimping depth, crimp contact feed rate)
- Rotatable vibration feeder and actuator in basic unit
- Low noise level
- for oil-free compressed air
- Minimal setup effort
- Low maintenance costs

## Details

Drive electro-pneumatic  
Nominal voltage, max. 230 V  
Nominal frequency 50 Hz  
Power consumption ca.0.75 kW  
Pressure ca.6 bar  
Compressed air connection 3 dm<sup>3</sup> / work cycle  
Control system PLC  
Work cycle trigger sensor  
Work cycle 1.5 s  
Noise level <70 dB  
Crimp type Four-point crimping  
Contact feed Vibratory bowl feed  
Stroke counters Resettable daily counte, total counter, operating hours, maintenance counter and quantity preselection  
Dimensions 580 x 470 x 470 mm  
Weight <60 kg

**Pack contents:**  
one mounted interchangeable unit,  
2.0 m connection cable and grounding plug,  
2.0 m pneumatic hose with plug-in nipple N6,  
plug gauges for setting the crimping,  
centering bush for positioning the plug gauges,  
draw for insulation remains,  
drawer for holding the contacts when the magazine is emptied,  
tool set for setting,  
1 set of stripping blades,  
operating instructions,  
declaration of conformity

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	
Crimping machine TK-M, Basic machine without interchangeable unit, Pack contents: Tool set for setting, 1 set of stripping blades, Operating instructions, Declaration of Conformity		09 98 000 6900	
Interchangeable unit, Han D®	0.14 ... 2.5	09 98 000 6901	
Interchangeable unit, Han E®	0.14 ... 4	09 98 000 6902	
Interchangeable unit, Han® C	1.5 ... 6	09 98 000 6903	
Interchangeable unit, D-Sub	0.09 ... 0.82	09 98 000 6904	
Interchangeable unit, Han- <i>Yellowlock</i> ®	0.14 ... 2.5	09 98 000 6907	

## Features



- Fast stripping and crimping in one operating step
- Easy handling due to quick change tool and stripper
- Suitable for standard D-Sub crimp contacts
- Selective processing of male and female contacts
- Hand wheel for manual adjustments
- Maintenance-friendly through needle bearing rail
- Automatic exhaust of the isolation remainders
- Reproducible, top quality gas-tight crimp connections
- With crimp force monitor
- Setting parameters with raster rotary button (depth of insulation stripping, length of insulation stripping, crimping height on wire, crimping height on insulation, wire retainer position, band thrust and wire position in the crimp contact)
- Non slip and anti-vibration feet
- Low noise level
- for oil-free compressed air
- Low maintenance costs
- V-blades for special wires on request

## Details

Drive electro-pneumatic  
Nominal voltage, max. 230 V  
Nominal frequency 50 Hz  
Power consumption 0.75 kW  
Pressure 6 bar  
Control system PLC  
Stripping device type 514  
Suction apparatus 2000.0900.20  
Work cycle trigger sensor  
Work cycle 0.35 s  
Noise level 85 dB  
Illumination integrated tool light 20001326  
Motor speed 440 –2000 rpm  
Stroke counters Resettable daily counter and permanent counter  
Dimensions 690 (with a contact reel: 1400) x 420 x 430 mm  
Weight <72 kg

### **Pack contents:**

with role owner and guide plate,  
2.0 m connection cable and grounding plug,  
2.0 m pneumatic hose with plug-in nipple N9,  
oiler bottle for the lubricating of the crimping contacts,  
tool set for setting,  
1 set of stamps for wire and isolation-crimp,  
1 anvil one-piece for wire and isolation-crimp,  
1 set of stripping blades,  
1 litre of contact oil,  
operating instructions,  
declaration of conformity

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	
<p>Crimping machine BK,                      Pack contents:                      With role owner and guide plate,                      Tool set for setting,                      1 set of stripping blades,                      Operating instructions,                      Declaration of Conformity</p>		09 98 000 5000	
<p>Quick change tool,                      D-Sub</p>	<p>0.09 ... 0.25                      0.25 ... 0.5</p>	<p>09 98 000 3008                      09 98 000 3010</p>	

## Technical characteristics

Plate thickness ≤2 mm structural grade carbon steel

## Technical characteristics

RoHS compliant

Identification	Size	Part number
----------------	------	-------------

Battery hydraulic punch driver,  
To produce panel cut outs for connectors,  
Punching pressure: 60 kN,  
Pack contents:  
In plastic case,  
Lithium-Ion battery 18 V, 3 Ah,  
Charging set,  
Accessories

09 99 000 0900



Hydraulic hand punch driver,  
To produce panel cut outs for connectors,  
Punching pressure: 60 kN,  
Pack contents:  
In plastic case,  
Accessories

09 99 000 0901



Punching units for hydraulic punch drivers	1 A	09 99 000 0976
	3 HPR	09 99 000 0906
	Han-Yellock® 10	09 99 000 0910
	Han-Yellock® 30	11 99 300 0001
	Han-Yellock® 60	11 99 600 0001
Modular Compact	09 99 000 0912	

09 99 000 0907  
09 99 000 0908  
09 99 000 0909

Han A®,  
Han-Eco® A,  
Punching units for hydraulic punch drivers

03 A  
10 A  
16 A

09 99 000 0914  
09 99 000 0915

Han-Eco® A,  
Rear mounting,  
Punching units for hydraulic punch drivers

10 A  
16 A

Han® B,  
Han-Eco® B,  
Punching units for hydraulic punch drivers

06 B  
10 B  
16 B  
24 B

09 99 000 0916  
09 99 000 0917  
09 99 000 0918  
09 99 000 0919

Han® B,  
Han-Eco® B,  
Rear mounting,  
Punching units for hydraulic punch drivers

06 B  
10 B  
16 B  
24 B

09 99 000 0916  
09 99 000 0917  
09 99 000 0918  
09 99 000 0919



Identification	Part number	
<p>Torque set, for High Current axial screw contact, incl. reversing blade (A/F 4.0 + A/F 5.0), Tightening torque: 5 ... 14 Nm,</p> <p>Pack contents: High quality metal box, Variable tightening torque tool TorqueVario®-STplus, Setting tool: torque-setter, HARTING optimised interchangeable blades hexagonal A/F 4, HARTING optimised interchangeable blades hexagonal A/F 5</p>	09 99 000 0833	
<p>Torque set, for power contact, incl. reversing blade (A/F 2.0 + A/F 2.5 + PH2), + different bits, + adapter blade, Tightening torque: 1 ... 5 Nm,</p> <p>Pack contents: High quality metal box, Variable tightening torque tool TorqueVario®-S, Setting tool: torque-setter, HARTING optimised interchangeable blades hexagonal A/F 2, HARTING optimised interchangeable blades hexagonal A/F 2.5, HARTING optimised interchangeable blades PH2, Torque bit universal holder, Bits: A/F3, A/F4, PH0, PH1, PH2, T10, T15, T20, slot 0.6 x 4.5, slot 0.8 x 5.5</p>	09 99 000 0834	
<p>Torque set, for HARTING screw contacts and fixing screws, Tightening torque: 0.5 ... 1.2 Nm,</p> <p>Pack contents: High quality metal box, Two pre-set tightening torque screwdrivers TorqueFix®, Interchangeable blades PH1, PH2, slot 0.5 x 3.0</p>	09 99 000 0835	

Identification

Part number

Insertion tool for crimp contacts,  
Small cross-section,  
Variable length of blade,  
Han D®,  
Han E®,  
Han-*Yellock*®

09 99 000 0847



Replacement-tip,  
for part number 09 99 000 0847

09 99 000 0848

Assembly tool,  
for Han® ES insert

09 99 000 0367



Torque set,  
for guiding pins and bushes,  
Tightening torque: 0.5 Nm,  
incl. 1/4" Bit,

09 99 000 0840



Pack contents:  
Torque bit universal holder 1/4",  
1 HARTING guiding pins and bushes bit,  
Product comes already pre-assembled in practical plastic packaging

Torque tool,  
Han® 3 A,  
Han® 4 A,  
Han® Q 5/0,  
Staf®

09 99 000 0875



Bit 1/4" as a spare part for guiding pins and bushes

09 99 000 0841



Hexagonal driver for axial screw,  
With grip,  
A/F 4 (e. g. Han® 100 A Axial module)

09 99 000 0363



Hexagonal driver for axial screw,  
With grip,  
A/F 5 (e. g. Han® 200 A Axial module)

09 99 000 0364









Hexagonal driver for axial screw,  
Bit 1/4",  
40 A contact (A/F 2)

09 99 000 0369


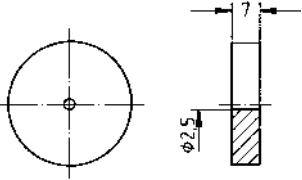

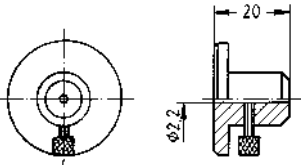




Identification	Part number	
Hexagonal driver for axial screw, Adapter 3/8", A/F 4 (e. g. Han® 100 A Axial module)	09 99 000 0370	
Hexagonal driver for axial screw, Adapter 3/8", A/F 5 (e. g. Han® 200 A Axial module)	09 99 000 0371	
Hexagonal driver for axial screw, Adapter 3/8", A/F 8 (e. g. Han® HC Modular 650)	09 99 000 0372	
Hexagonal driver for axial screw, Bit 1/4", 70 A contact (A/F 2.5)	09 99 000 0375	
Han® VDE Screw Driver Set, The standard set, Pack contents: Slim bit screw driver 0.4 x 2.5, Slim bit screw driver 0.5 x 3.0, Slim bit screw driver 0.6 x 3.5, Slim bit screw driver 1.0 x 4.5, Phillips screw driver PH1 (191 x 30 mm), Phillips screw driver PH2 (218 x 23 mm)	09 99 000 0836	
Screw driver set Slimline, Insolated blade for slim assembly, Pack contents: Phillips screw driver PH1 x 80 mm, Phillips screw driver PH2 x 100 mm, Slim bit screw driver 3.5 x 100 mm, Slim bit screw driver 4.0 x 100 mm, Slim bit screw driver 5.5 x 125 mm, Slim bit screw driver 6.5 x 150 mm	09 99 000 0844	











## Technical characteristics



RoHS compliant

Identification	Part number	Drawing (dimensions in mm)
Polishing paper, for POF grain size 1000, Pack contents: Each part number means 5 pieces	20 80 001 9911	
Polishing paper, for GI 9 μ-grain size, Pack contents: Each part number means 5 pieces	20 80 001 9912	
Polishing paper, for GI 1 μ-grain size, Pack contents: Each part number means 5 pieces	20 80 001 9913	
Polishing tool, DIN 41612 	20 99 000 1092	
Polishing tool, POF cable 2.2 mm diameter 	20 99 000 1093	
Polishing tool, SC	20 99 000 1097	

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	
Removal tool, Han D®		09 99 000 0012	
Replacement-tip, for part number 09 99 000 0012		09 99 000 0004	
Removal tool, Han E®		09 99 000 0319	
Removal tool, Han® C	1.5 ... 6 10	09 99 000 0305 09 99 000 0381	
Removal tool, Han® C module, 09 14 003 3001 / 09 14 003 3101, Han® Q 2/0, Han® Q 3/0, Han® Q 4/0 Crimp termination		09 99 000 0315	
Insertion / removal tools, Han-Modular®, for D-Sub crimp contact		09 99 000 0368	
Removal tool, Han-Quintax®, for Quintax contact		09 99 000 0323	
Removal tool, for contacts in the multi module		09 99 000 0328	
Removal tool, Han D®, Service		09 99 000 0052	
Removal tool, Han-Fast® Lock, for easier removal of the Fast-Lock contact from the printed circuit board		09 99 000 0837	

Tools

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	
Removal tool, for LC contact in the Han® LC module		09 99 000 0843	
Removal tool, for pneumatic contacts		09 99 000 0899	
Removal tool, Han-Modular®, Han-Eco®, Han-Yellock®, for single modules, Metal		09 99 000 0828	
Removal tool, Han-Modular®, for double modules		09 99 000 0842	
Removal tool, for all Han-Modular® modules in plastic frames You need 2 pieces for the removal of a single module and 4 pieces for the double module.		09 99 000 0331	
Removal tool, for the Han® HV Single module		09 99 000 0335	
Removal tool, for the Han® 100 A crimp module		09 99 000 0383	
Removal tool, for the Han® 200 A crimp module Insert from mating side.		09 99 000 0820	
Removal tool, for the Han® 100 A single module, for Han® GND		09 99 000 0827	
Removal tool, Han® Megabit module		09 99 000 0880	

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	
Removal tool, for the Han® HV Double module		09 99 000 0327	
Removal tool, for Han- <i>Yellock</i> ® modules and frames, Thermoplastic		11 99 000 0001	
Removal tool, for Han- <i>Yellock</i> ® modules and frames, Metal		11 99 000 0002	
Removal tool, Han® F+B, for circular inserts		09 99 000 0878	
Removal tool, for Han® HC Modular 250 Crimp, for unlocking the fixing plate Insert from mating side.		09 99 000 0332	
Removal tool, Han® EasyCon, for assembly and disassembly of shielding clamps		09 99 000 0334	
Removal tool, Han® K 6/6		09 99 000 0977	
Removal tool, Han-Modular® Flexbox		09 99 000 0979	
Removal tool, Han® HsB		09 99 000 0987	

Tools

## Technical characteristics

RoHS compliant

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	
Stripping tool, Pack contents: Stripping blade set, Straight	0.03 ... 16	09 99 000 0980	
Stripping blade set, Straight		09 99 000 0981	
Stripping blade set, Oval	10 ... 16	09 99 000 0982	
Stripping blade set, V-shape		09 99 000 0983	
Fibre stripper	0.18/0.3 mm 0.3 mm 1 mm	20 99 000 1046 20 99 000 1041 20 99 000 1045	

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