



Pushing Performance

People | Power | Partnership

# HARTING Han<sup>®</sup> 1A

## Versatile compact connector series

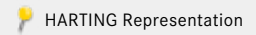
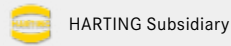
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# Transforming customer wishes into concrete solutions



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 5,000 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.

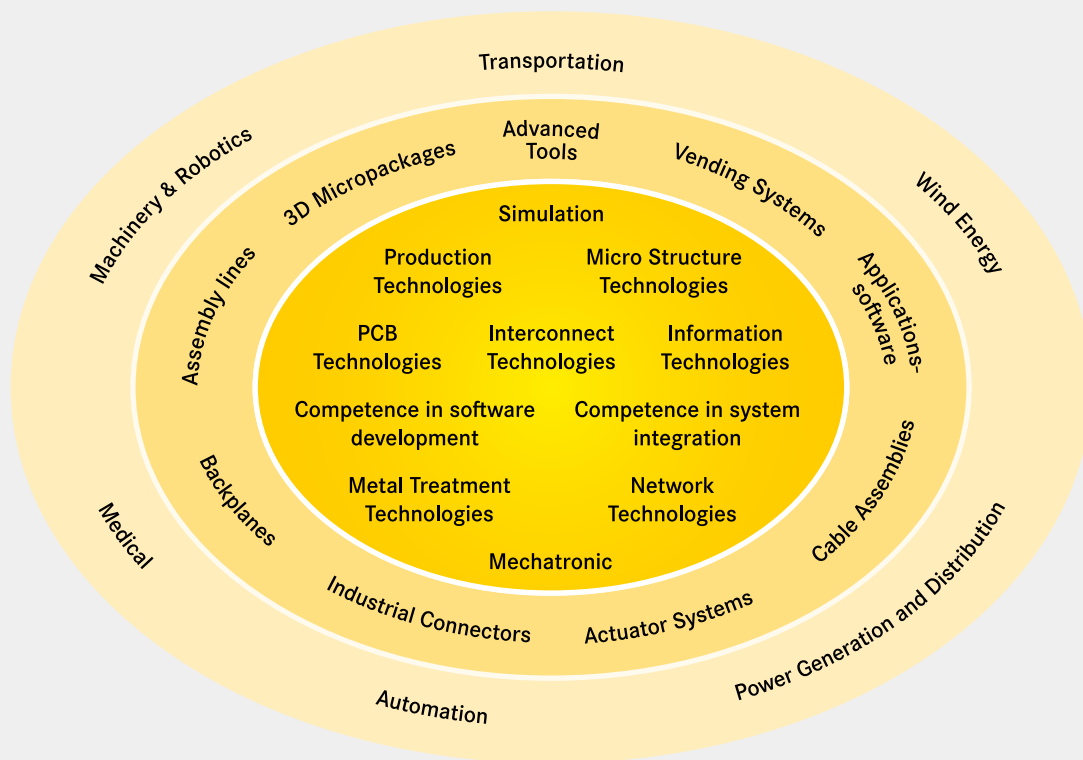
In order to ensure the future-proof design of RF and EMC-compatible interface solutions, the central **HARTING** laboratory (certified to EN 45001) employs simulation tools, as well as experimental, testing and diagnostics facilities all the way to scanning electron microscopes. In addition to product 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).

Registered users can take advantage of MyHARTING to check on availability or prices, and to place or track their orders. Here, your customized „HARTING history“ provides you with a list of your inquiries, quotations and more.

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Han® 1A - Versatile compact connector series

Han  
1A

Markets and applications

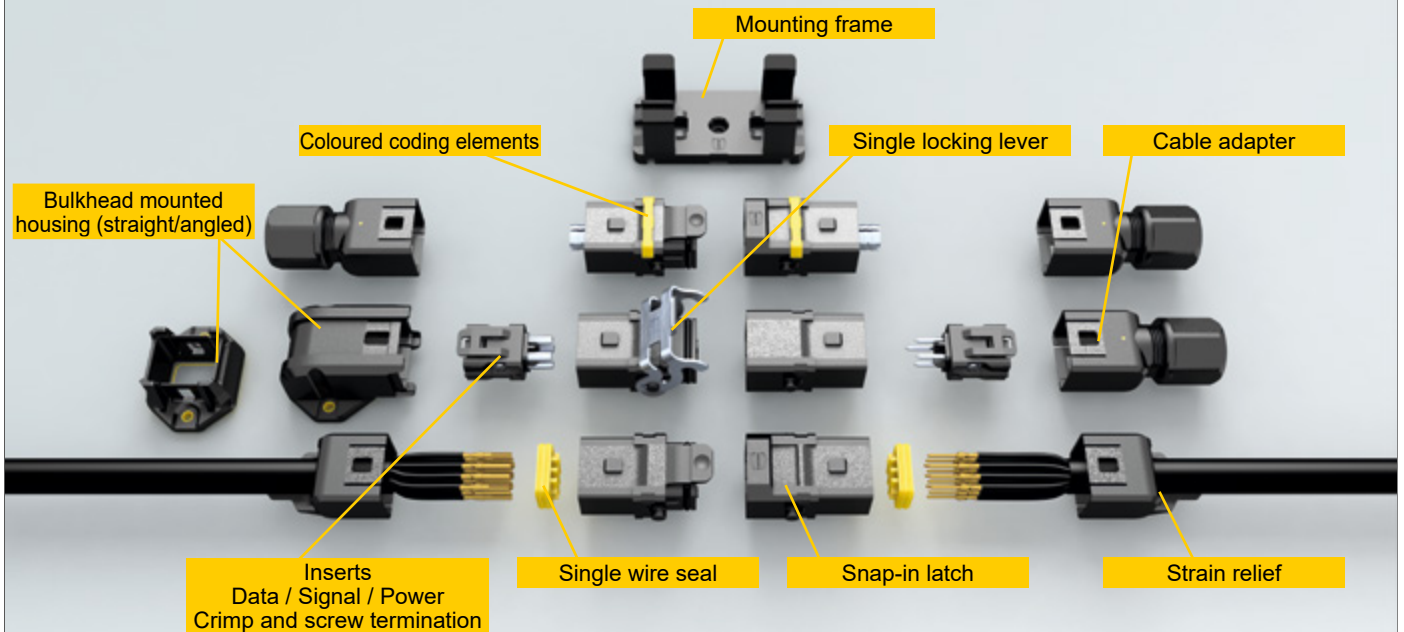
- **Transportation**
  - Can be used in: door systems and ramps, illumination, headlights, speakers, indicating lights, warning lights, screens, door opener, push buttons, buzzers, windscreen wiper systems,...
- **Wind energy**
  - Can be used in: tower lightning, emergency stops, sensors, indicating sounds, ventilators,...
- **Energy storage systems**
  - Can be used in: battery storage systems, solar inverters, power plant control systems and cabinets, power generator sets, sensors,...
- **Machinery & Robotics**
  - Can be used in: subunits of injection moulding machines like heater, fan, control terminals, industrial lightning, small drives, vibratory conveyors, connections inside cabinets,...

Features and benefits

- **Versatile concept**
  - Build your own connectivity solution by using the modularity advantage of the Han® 1A with inserts covering data, signal and power transmission. Together with all accessory parts the Han® 1A is a very flexible system usable for a broad range of applications.
- **Time saving**
  - Due to the easy mate and click design of all single components the assembly of the connector is done within seconds - and there are no tools needed.
- **Space saving**
  - The Han® 1A components are designed to fulfil the trend of miniaturisation - while being still a robust Han® connector also for harsh environments.
- **IP protected where needed**
  - By usage of hood and housing elements or single wire seals IP65 protection degree can be realized in easy manner.

Flexible connector system

The right connectivity solution for every application!





Number of contacts

4

4 A 1.5 kV 3  
+ shielding  
Cat. 5

Han  
1A

## Technical characteristics

Number of contacts	4
further contacts	+ shielding
Rated current	4 A
Rated impulse voltage	1.5 kV
Pollution degree	3
Rated voltage	48 V AC, 60 V DC
Transmission characteristics	Cat. 5, Class D up to 100 MHz
Data rate	10 Mbit/s, 100 Mbit/s
Insulation resistance	>10 <sup>8</sup> Ω
Limiting temperature	-30 ... +90 °C
Mating cycles	≥100
Degree of protection acc. to IEC 60529	IP20
Material (insert)	Polyamide (PA)
Colour (insert)	RAL 9005 (jet black)
Material (seal)	NBR
Colour (seal)	Black
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

## Specifications and approvals


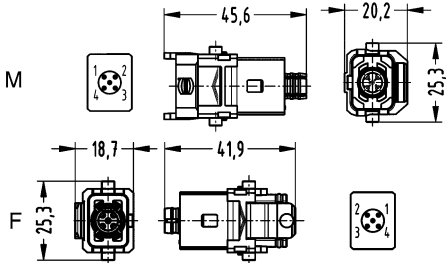
EN 45545-2 R22: HL1, HL2, HL3  
EN 45545-2 R23: HL1, HL2, HL3  
EN 45545-2 R24: HL1, HL2, HL3  
IEC 61373 Category 1 Class B  
EN 60664-1  
IEC 61984  
DNV GL  
UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
Please contact your local HARTING subsidiary for further information.

## Details


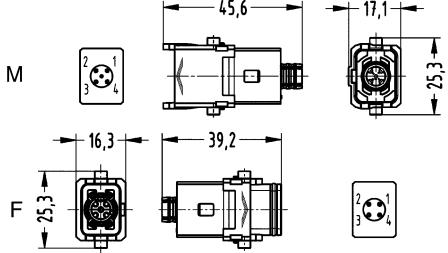
A Han® 1A configuration that only consists of inserts (with or without strain relief, 09 10 000 5300) is an unenclosed connector according to IEC 61984. In this case protection against electric shock must be provided by the installation methods of the user.

Contact inserts must not be coupled or decoupled under electrical load.

Contact inserts must not be powered-up in the un-mated condition.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® 1A, Crimp termination, With cable tie, Snap-in latches, IP20</p>  <p>Please order crimp contacts separately. Order separately the hoods/housings for an IP65 performance. Contact insert not compatible with 09 10 000 0800 (bulkhead mounted housing, angled)</p>	0.13 ... 0.82	09 10 004 3001	09 10 004 3101	

Han  
1A


Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® 1A, Crimp termination, With cable tie, Single locking lever, IP20</p>  <p>Please order crimp contacts separately. Please order locking lever separately. Order separately the hoods/housings for an IP65 performance. Contact insert not compatible with 09 10 000 0800 (bulkhead mounted housing, angled)</p>	0.13 ... 0.82	09 10 004 3006	09 10 004 3106	

### Technical characteristics

Contact resistance ≤10 mΩ

### 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, Standard, Crimp contact, Contact surface: Noble metal over Ni  	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> for stranded wire according IEC 60228 Class 5	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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0.33 ... 0.82	09 67 000 3576	09 67 000 3476																	

Number of contacts

8

0.5 A 48 V 0.8 kV 3  
+ shielding  
Cat. 6<sub>A</sub>

### Technical characteristics

Number of contacts	8
further contacts	+ shielding
Rated current	0.5 A
Rated voltage	48 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Transmission characteristics	Cat. 6 <sub>A</sub> , 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
Insulation resistance	>10 <sup>8</sup> Ω
Limiting temperature	-30 ... +90 °C
Mating cycles	≥100
Degree of protection acc. to IEC 60529	IP20
Material (insert)	Polyamide (PA)
Colour (insert)	RAL 9005 (jet black)
Material (seal)	NBR
Colour (seal)	Black
Material flammability class acc. to UL 94	V-0
RoHS	compliant with exemption

### Specifications and approvals


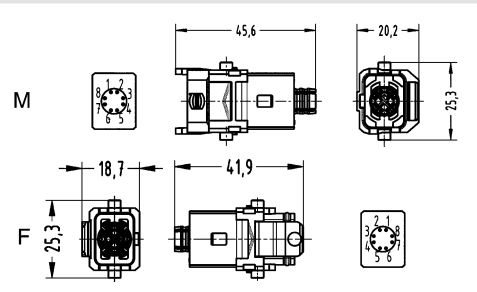
EN 45545-2 R22: HL1, HL2, HL3  
 EN 45545-2 R23: HL1, HL2, HL3  
 EN 45545-2 R24: HL1, HL2, HL3  
 IEC 61373 Category 1 Class B  
 EN 60664-1  
 IEC 61984  
 DNV GL  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
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### Details


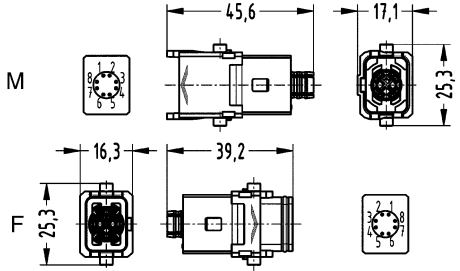
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Contact inserts must not be coupled or decoupled under electrical load.

Contact inserts must not be powered-up in the un-mated condition.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
Han® 1A, Crimp termination, With cable tie, Snap-in latches, IP20  <p>Please order crimp contacts separately.                      Order separately the hoods/housings for an IP65 performance.                      Contact insert not compatible with 09 10 000 0800 (bulkhead mounted housing, angled)</p>	0.08 ... 0.25	09 10 008 3001	09 10 008 3101	



Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® 1A, Crimp termination, With cable tie, Single locking lever, IP20</p>  <p>Please order crimp contacts separately. Please order locking lever separately. Order separately the hoods/housings for an IP65 performance. Contact insert not compatible with 09 10 000 0800 (bulkhead mounted housing, angled)</p>	0.08 ... 0.25	09 10 008 3006	09 10 008 3106	


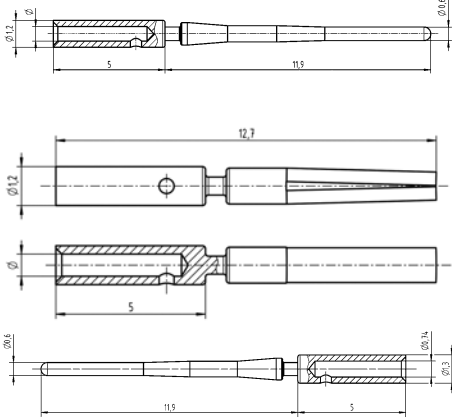
Han 1A

Technical characteristics

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	
<p><i>har-speed</i>, Crimp contact, Contact surface: Au over Ni, Mating side</p> 	0.08 ... 0.22 0.13 ... 0.25	21 01 100 9014 21 01 100 9019	21 01 100 9023 21 01 100 9021	

Number of contacts

# 12

6.5 A 50 V 0.8 kV 3

Han  
1A

## Technical characteristics

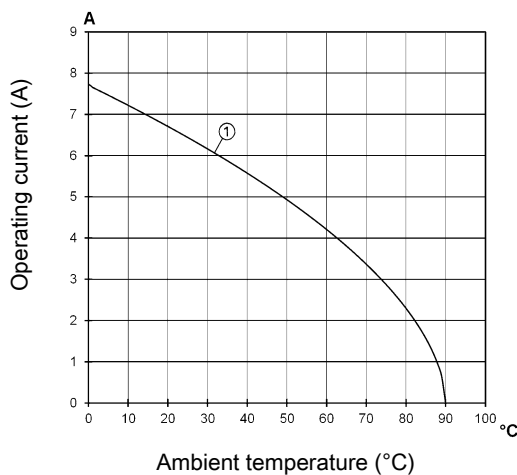
Number of contacts	12
Rated current	6.5 A
Rated voltage	50 V
Rated impulse voltage	0.8 kV
Pollution degree	3
Rated current acc. to UL	5 A @ AWG 20
Rated voltage acc. to UL	30 V
Insulation resistance	>10 <sup>8</sup> Ω
Limiting temperature	-30 ... +90 °C
Mating cycles	≥100
Degree of protection acc. to IEC 60529	IP20
Material (insert)	Polyamide (PA)
Colour (insert)	RAL 9005 (jet black)
Material (seal)	NBR
Colour (seal)	Black
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 Conductor cross-section 0.52 mm<sup>2</sup>

## Specifications and approvals

EN 45545-2 R22: HL1, HL2, HL3  
 EN 45545-2 R23: HL1, HL2, HL3  
 EN 45545-2 R24: HL1, HL2, HL3  
 IEC 61373 Category 1 Class B  
 EN 60664-1  
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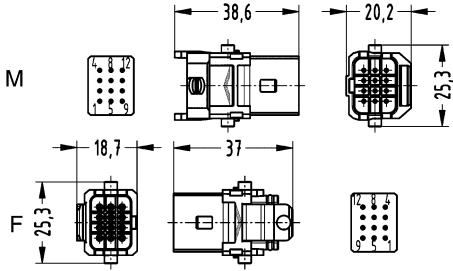

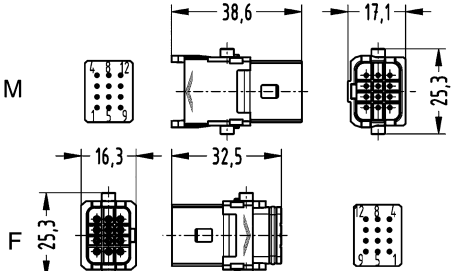

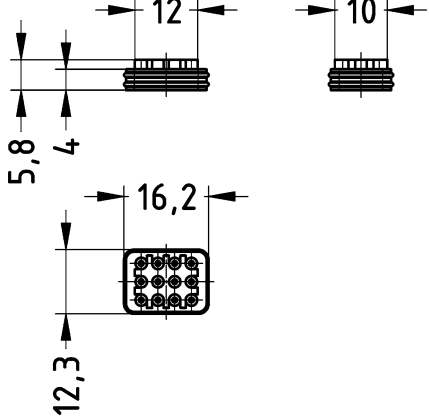
## Details

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Contact inserts must not be coupled or decoupled under electrical load.

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Han 1A

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® 1A, Crimp termination, Snap-in latches, IP20</p>  <p>Please order crimp contacts separately. Order separately the single wire seal or the hoods/housings for an IP65 performance.</p>	0.09 ... 0.52	09 10 012 3001	09 10 012 3101	
<p>Han® 1A, Crimp termination, Single locking lever, IP20</p>  <p>Please order crimp contacts separately. Please order locking lever separately. Order separately the single wire seal or the hoods/housings for an IP65 performance.</p>	0.09 ... 0.52	09 10 012 3006	09 10 012 3106	
<p>Single wire seal, Silicone, for 12 contacts</p> 		09 10 012 9900	09 10 012 9900	


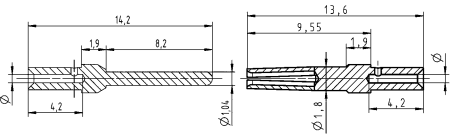


## Technical characteristics


Contact resistance  $\leq 10 \text{ m}\Omega$

## 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, Standard, Crimp contact, Contact surface: Noble metal over Ni  	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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0.25 ... 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

**2+** 

10 A 230/400 V 4 kV 3

Han  
1A

## Technical characteristics

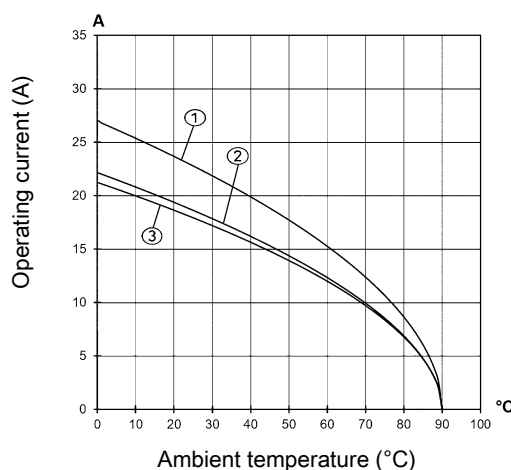
Number of contacts	2
Rated current	10 A
Rated voltage conductor-earth	230 V
Rated voltage conductor-conductor	400 V
Rated impulse voltage	4 kV
Pollution degree	3
Rated current acc. to UL	10 A @ AWG 16
Rated voltage acc. to UL	250 V
Insulation resistance	>10 <sup>8</sup> Ω
Limiting temperature	-30 ... +90 °C
Mating cycles	≥100
Degree of protection acc. to IEC 60529	IP20
Material (insert)	Polyamide (PA)
Colour (insert)	RAL 9005 (jet black)
Material (seal)	NBR
Colour (seal)	Black
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 1 mm<sup>2</sup>
- ③ Conductor cross-section 0.75 mm<sup>2</sup>

## Specifications and approvals

EN 45545-2 R22: HL1, HL2, HL3  
 EN 45545-2 R23: HL1, HL2, HL3  
 EN 45545-2 R24: HL1, HL2, HL3  
 IEC 61373 Category 1 Class B  
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## Details

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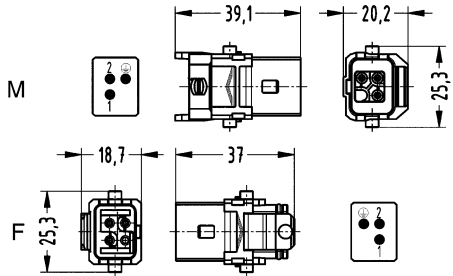

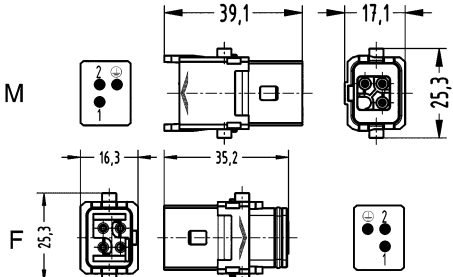

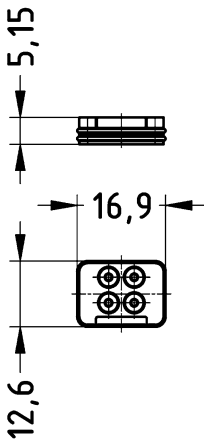
Details

Contact inserts must not be powered-up in the un-mated condition.


Details

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).

Han 1A

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® 1A, Screw termination, Snap-in latches, IP20 Contact surface: Silver plated</p>  <p>Order separately the single wire seal or the hoods/housings for an IP65 performance.</p>	0.75 ... 1.5	09 10 002 2601	09 10 002 2701	
<p>Han® 1A, Screw termination, Single locking lever, IP20 Contact surface: Silver plated</p>  <p>Please order locking lever separately. Order separately the single wire seal or the hoods/housings for an IP65 performance.</p>	0.75 ... 1.5	09 10 002 2606	09 10 002 2706	
<p>Single wire seal, Silicone, for 4 contacts</p> 		09 10 004 9900	09 10 004 9900	

Number of contacts

**3+** 

16 A 400 V 6 kV 3

Han  
1A

## Technical characteristics

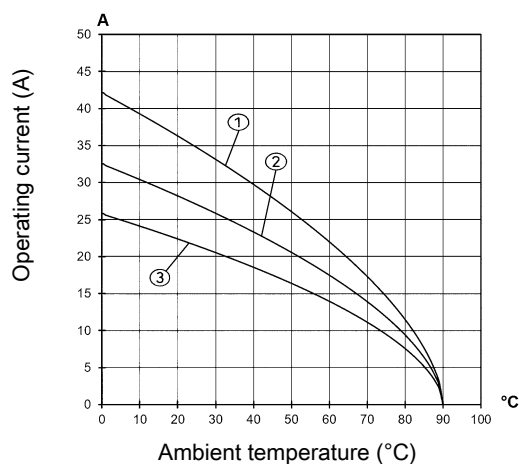
Number of contacts	3
Rated current	16 A
Rated voltage	400 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated current acc. to UL	15 A @ AWG 12
Rated voltage acc. to UL	600 V
Insulation resistance	>10 <sup>8</sup> Ω
Limiting temperature	-30 ... +90 °C
Mating cycles	≥100
Degree of protection acc. to IEC 60529	IP20
Material (insert)	Polyamide (PA)
Colour (insert)	RAL 9005 (jet black)
Material (seal)	NBR
Colour (seal)	Black
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 Conductor cross-section 4 mm<sup>2</sup>
- ② Conductor cross-section 2.5 mm<sup>2</sup>
- ③ Conductor cross-section 1.5 mm<sup>2</sup>

## Specifications and approvals

EN 45545-2 R22: HL1, HL2, HL3  
 EN 45545-2 R23: HL1, HL2, HL3  
 EN 45545-2 R24: HL1, HL2, HL3  
 IEC 61373 Category 1 Class B  
 EN 60664-1  
 IEC 61984  
 DNV GL  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 Please contact your local HARTING subsidiary for further information.


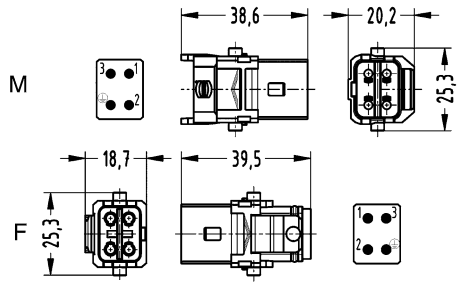

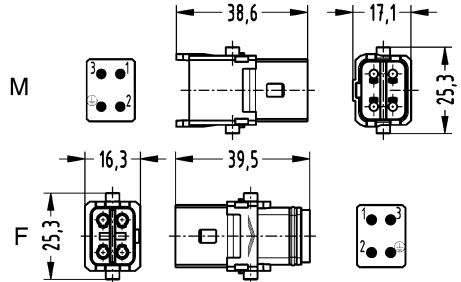

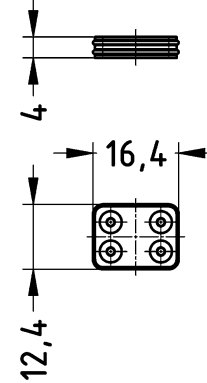
## Details

A Han® 1A configuration that only consists of inserts (with or without strain relief, 09 10 000 5300) is an unenclosed connector according to IEC 61984. In this case protection against electric shock must be provided by the installation methods of the user.

Contact inserts must not be coupled or decoupled under electrical load.

Contact inserts must not be powered-up in the un-mated condition.



Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® 1A, Crimp termination, Snap-in latches, IP20</p>  <p>Please order crimp contacts separately. Order separately the single wire seal or the hoods/housings for an IP65 performance.</p>	0.14 ... 4	09 10 003 3201	09 10 003 3301	
<p>Han® 1A, Crimp termination, Single locking lever, IP20</p>  <p>Please order crimp contacts separately. Please order locking lever separately. Order separately the single wire seal or the hoods/housings for an IP65 performance.</p>	0.14 ... 4	09 10 003 3206	09 10 003 3306	
<p>Single wire seal, Silicone, for 4 contacts</p> 		09 10 004 9901	09 10 004 9901	

Han 1A

## Technical characteristics

Contact resistance	≤1 mΩ
Mating cycles	≥500
Material (contacts)	Copper alloy
RoHS	compliant with exemption

## Specifications and approvals


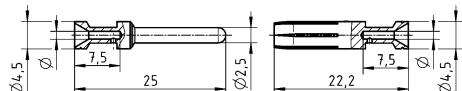

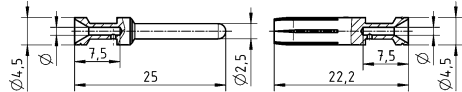
EN 60664-1  
IEC 61984

## 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 <sup>®</sup> , 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> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> </tr> <tr> <td>3 mm<sup>2</sup></td> <td>AWG 12</td> </tr> <tr> <td>4 mm<sup>2</sup></td> <td>AWG 12</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	0.5 mm <sup>2</sup>	AWG 20	0.75 mm <sup>2</sup>	AWG 18	1 mm <sup>2</sup>	AWG 18	1.5 mm <sup>2</sup>	AWG 16	2.5 mm <sup>2</sup>	AWG 14	3 mm <sup>2</sup>	AWG 12	4 mm <sup>2</sup>	AWG 12
	Conductor cross-section	Identification																				
	0.14-0.37 mm <sup>2</sup>	AWG 26-22																				
	0.5 mm <sup>2</sup>	AWG 20																				
	0.75 mm <sup>2</sup>	AWG 18																				
	1 mm <sup>2</sup>	AWG 18																				
	1.5 mm <sup>2</sup>	AWG 16																				
	2.5 mm <sup>2</sup>	AWG 14																				
	3 mm <sup>2</sup>	AWG 12																				
	4 mm <sup>2</sup>	AWG 12																				
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 <sup>®</sup> , 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> </tr> <tr> <td>0.5 mm<sup>2</sup></td> <td>AWG 20</td> </tr> <tr> <td>0.75 mm<sup>2</sup></td> <td>AWG 18</td> </tr> <tr> <td>1 mm<sup>2</sup></td> <td>AWG 18</td> </tr> <tr> <td>1.5 mm<sup>2</sup></td> <td>AWG 16</td> </tr> <tr> <td>2.5 mm<sup>2</sup></td> <td>AWG 14</td> </tr> <tr> <td>3 mm<sup>2</sup></td> <td>AWG 12</td> </tr> <tr> <td>4 mm<sup>2</sup></td> <td>AWG 12</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	0.5 mm <sup>2</sup>	AWG 20	0.75 mm <sup>2</sup>	AWG 18	1 mm <sup>2</sup>	AWG 18	1.5 mm <sup>2</sup>	AWG 16	2.5 mm <sup>2</sup>	AWG 14	3 mm <sup>2</sup>	AWG 12	4 mm <sup>2</sup>	AWG 12
	Conductor cross-section	Identification																				
	0.14-0.37 mm <sup>2</sup>	AWG 26-22																				
	0.5 mm <sup>2</sup>	AWG 20																				
	0.75 mm <sup>2</sup>	AWG 18																				
	1 mm <sup>2</sup>	AWG 18																				
	1.5 mm <sup>2</sup>	AWG 16																				
	2.5 mm <sup>2</sup>	AWG 14																				
	3 mm <sup>2</sup>	AWG 12																				
	4 mm <sup>2</sup>	AWG 12																				
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

**3+** 

10 A 230/400 V 4 kV 3

Han  
1A

## Technical characteristics

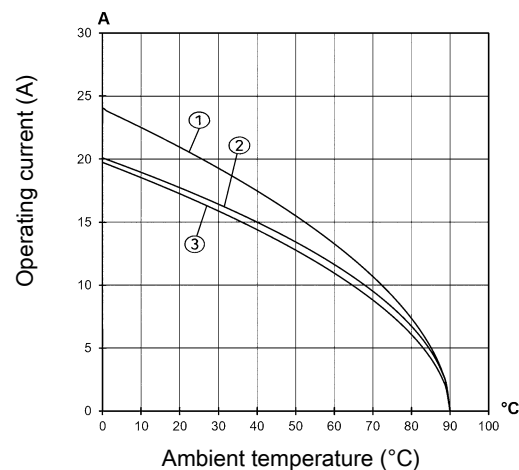
Number of contacts	3
Rated current	10 A
Rated voltage conductor-earth	230 V
Rated voltage conductor-conductor	400 V
Rated impulse voltage	4 kV
Pollution degree	3
Rated current acc. to UL	10 A @ AWG 16
Rated voltage acc. to UL	250 V
Insulation resistance	>10 <sup>8</sup> Ω
Limiting temperature	-30 ... +90 °C
Mating cycles	≥100
Degree of protection acc. to IEC 60529	IP20
Material (insert)	Polyamide (PA)
Colour (insert)	RAL 9005 (jet black)
Material (seal)	NBR
Colour (seal)	Black
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 1 mm<sup>2</sup>
- ③ Conductor cross-section 0.75 mm<sup>2</sup>

## Specifications and approvals

EN 45545-2 R22: HL1, HL2, HL3

EN 45545-2 R23: HL1, HL2, HL3

EN 45545-2 R24: HL1, HL2, HL3

IEC 61373 Category 1 Class B

EN 60664-1

IEC 61984

DNV GL

UL 1977 ECBT2.E235076

CSA-C22.2 No. 182.3 ECBT8.E235076

Please contact your local HARTING subsidiary for further information.

## Details

A Han® 1A configuration that only consists of inserts (with or without strain relief, 09 10 000 5300) is an unenclosed connector according to IEC 61984. In this case protection against electric shock must be provided by the installation methods of the user.


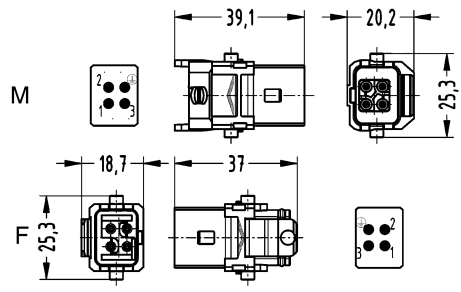

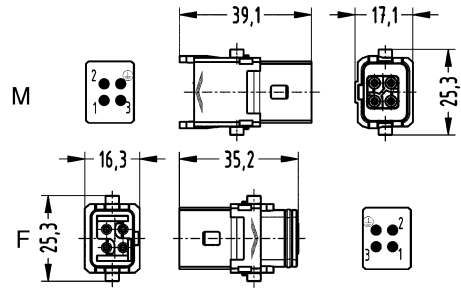

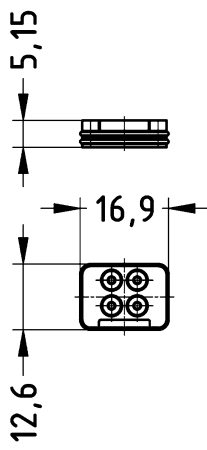
Contact inserts must not be coupled or decoupled under electrical load.

Details

Contact inserts must not be powered-up in the un-mated condition.

Details


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).

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® 1A, Screw termination, Snap-in latches, IP20 Contact surface: Silver plated</p>  <p>Order separately the single wire seal or the hoods/housings for an IP65 performance.</p>	0.75 ... 1.5	09 10 003 2601	09 10 003 2701	
<p>Han® 1A, Screw termination, Single locking lever, IP20 Contact surface: Silver plated</p>  <p>Please order locking lever separately. Order separately the single wire seal or the hoods/housings for an IP65 performance.</p>	0.75 ... 1.5	09 10 003 2606	09 10 003 2706	
<p>Single wire seal, Silicone, for 4 contacts</p> 		09 10 004 9900	09 10 004 9900	



Number of contacts

# 3+



 10 A 400 V 6 kV 3  
 + shielding
Han  
1A

## Technical characteristics

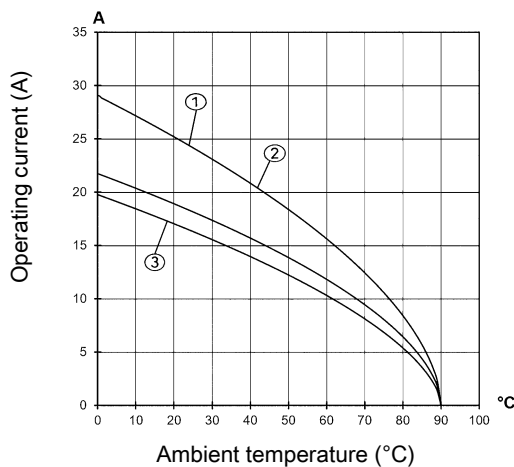
Number of contacts	3
further contacts	+ shielding
Rated current	10 A
Rated voltage	400 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated current acc. to UL	15 A @ AWG 14
Rated voltage acc. to UL	600 V
Insulation resistance	$>10^8 \Omega$
Limiting temperature	-30 ... +90 °C
Mating cycles	$\geq 100$
Degree of protection acc. to IEC 60529	IP20
Material (insert)	Polyamide (PA)
Colour (insert)	RAL 9005 (jet black)
Material (seal)	NBR
Colour (seal)	Black
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 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 45545-2 R22: HL1, HL2, HL3  
 EN 45545-2 R23: HL1, HL2, HL3  
 EN 45545-2 R24: HL1, HL2, HL3  
 IEC 61373 Category 1 Class B  
 EN 60664-1  
 IEC 61984  
 DNV GL  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 Please contact your local HARTING subsidiary for further information.

## Details


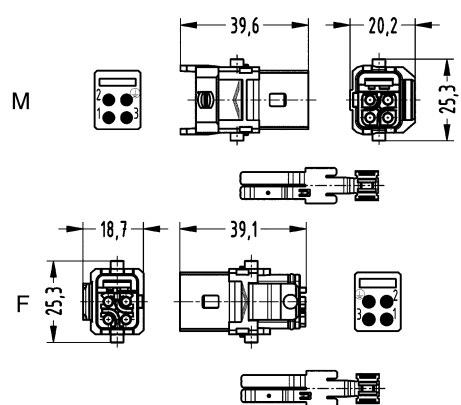

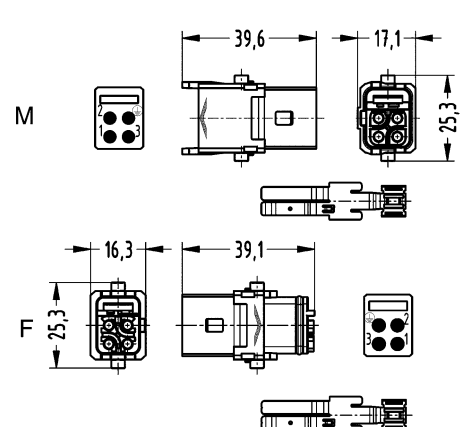
A Han® 1A configuration that only consists of inserts (with or without strain relief, 09 10 000 5300) is an unenclosed connector according to IEC 61984. In this case protection against electric shock must be provided by the installation methods of the user.

The Han® 1A insert has no conductive connection between PE-contact and shielding element. Protection against electric shock must be provided by connecting the cable shielding to a protective earth (PE).

Contact inserts must not be coupled or decoupled under electrical load.

Contact inserts must not be powered-up in the un-mated condition.

Han  
1A

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® 1A, Crimp termination, With cable tie, Snap-in latches, IP20</p> <p>Pack contents: Shielding element is included within the delivery</p>  <p>Please order crimp contacts separately. Order separately the hoods/ housings for an IP65 perfor- mance.</p>	0.14 ... 2.5	09 10 003 3001	09 10 003 3101	
<p>Han® 1A, Crimp termination, With cable tie, Single locking lever, IP20</p> <p>Pack contents: Shielding element is included within the delivery</p>  <p>Please order crimp contacts separately. Please order locking lever sep- arately. Order separately the hoods/ housings for an IP65 perfor- mance.</p>	0.14 ... 2.5	09 10 003 3006	09 10 003 3106	

### Technical characteristics

Contact resistance	≤3 mΩ
Mating cycles	≥500
Material (contacts)	Copper alloy
RoHS	compliant with exemption

### Specifications and approvals


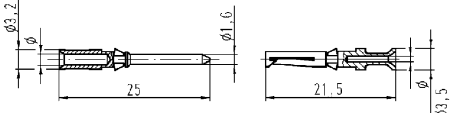

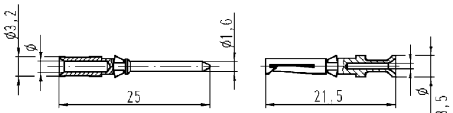
EN 60664-1  
IEC 61984

### 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 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>∅</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	∅	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	∅	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®, 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>∅</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	∅	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 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																							
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

**5+** 

10 A 400 V 6 kV 3

Han  
1A

## Technical characteristics

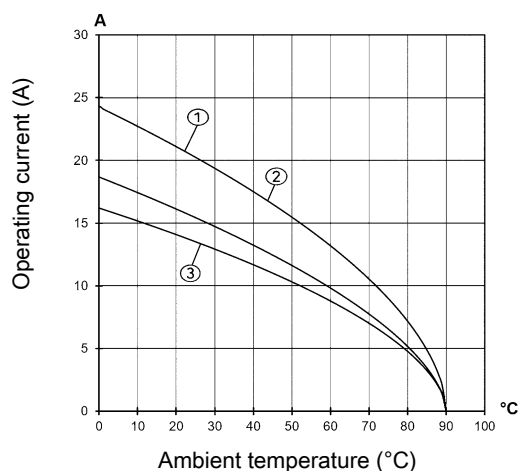
Number of contacts	5
Rated current	10 A
Rated voltage	400 V
Rated impulse voltage	6 kV
Pollution degree	3
Rated current acc. to UL	15 A @ AWG 14
Rated voltage acc. to UL	600 V
Insulation resistance	$>10^8 \Omega$
Limiting temperature	-30 ... +90 °C
Mating cycles	$\geq 100$
Degree of protection acc. to IEC 60529	IP20
Material (insert)	Polyamide (PA)
Colour (insert)	RAL 9005 (jet black)
Material (seal)	NBR
Colour (seal)	Black
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 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


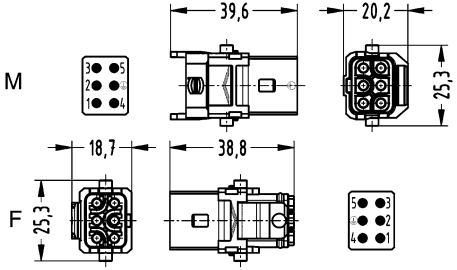

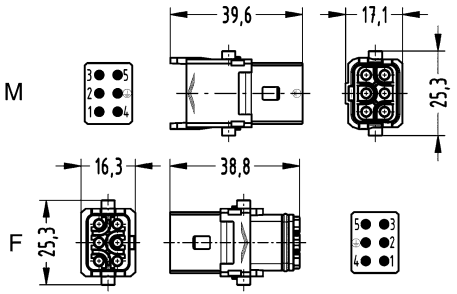

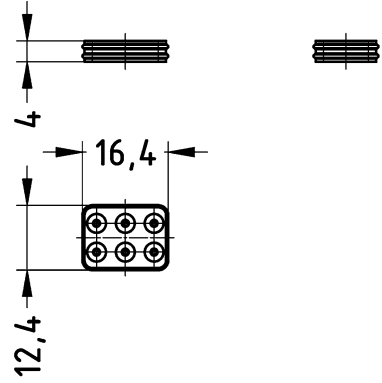
EN 45545-2 R22: HL1, HL2, HL3  
 EN 45545-2 R23: HL1, HL2, HL3  
 EN 45545-2 R24: HL1, HL2, HL3  
 IEC 61373 Category 1 Class B  
 EN 60664-1  
 IEC 61984  
 DNV GL  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 Please contact your local HARTING subsidiary for further information.

## Details

A Han® 1A configuration that only consists of inserts (with or without strain relief, 09 10 000 5300) is an unenclosed connector according to IEC 61984. In this case protection against electric shock must be provided by the installation methods of the user.

Contact inserts must not be coupled or decoupled under electrical load.

Contact inserts must not be powered-up in the un-mated condition.

Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)
		Male	Female	
<p>Han® 1A, Crimp termination, Snap-in latches, IP20</p>  <p>Please order crimp contacts separately. Order separately the single wire seal or the hoods/housings for an IP65 performance.</p>	0.14 ... 2.5	09 10 005 3001	09 10 005 3101	
<p>Han® 1A, Crimp termination, Single locking lever, IP20</p>  <p>Please order crimp contacts separately. Please order locking lever separately. Order separately the single wire seal or the hoods/housings for an IP65 performance.</p>	0.14 ... 2.5	09 10 005 3006	09 10 005 3106	
<p>Single wire seal, Silicone, for 6 contacts</p> 		09 10 006 9900	09 10 006 9900	

Han 1A

## Technical characteristics

Contact resistance	≤3 mΩ
Mating cycles	≥500
Material (contacts)	Copper alloy
RoHS	compliant with exemption

## Specifications and approvals


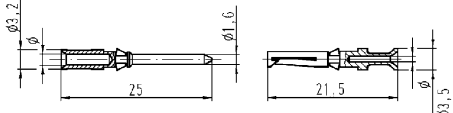

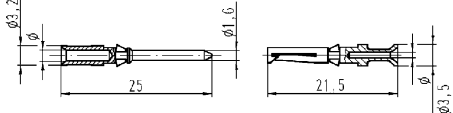
EN 60664-1  
IEC 61984

## 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.


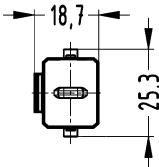
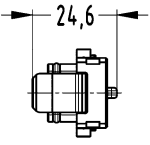

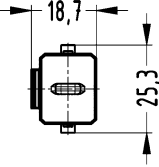
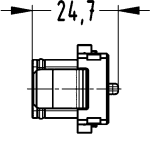

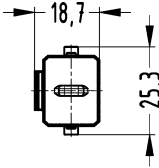
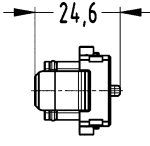
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number		Drawing (dimensions in mm)																					
		Male	Female																						
Han D®, Crimp contact, Contact surface: Silver plated  	0.14 ... 0.37	09 15 000 6104	09 15 000 6204	 <table border="1"> <thead> <tr> <th>Conductor cross-section</th> <th>∅</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	∅	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 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>∅</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	∅	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																							

### Features

- IP65 in locked condition
- Suitable for snap-in latch and lever

### Technical characteristics

Limiting temperature	-30 ... +90 °C
Degree of protection acc. to IEC 60529	IP65
Material (cover)	Polyamide (PA)
Colour (accessories)	RAL 9005 (jet black)
Material flammability class acc. to UL 94	V-0
RoHS	compliant

Identification	Part number	Drawing (dimensions in mm)	
Protection cover, for male inserts, 09 10 012 300X, IP65  	09 10 000 5400		
Protection cover, for male inserts, 09 10 003 320X, 09 10 003 300X, 09 10 005 300X, IP65  	09 10 000 5401		
Protection cover, for male inserts, 09 10 004 300X, 09 10 008 300X, 09 10 002 260X, IP65  	09 10 000 5402		



Han  
1A

Identification	Part number	Drawing (dimensions in mm)	
Protection cover, for female inserts, 09 10 012 310X, IP65	09 10 000 5500		
Protection cover, for female inserts, 09 10 003 330X, 09 10 003 310X, 09 10 005 310X, IP65	09 10 000 5501		
Protection cover, for female inserts, 09 10 004 310X, 09 10 008 310X, 09 10 003 270X, 09 10 003 270X, IP65	09 10 000 5502		
Nylon cord, With cable eye and crimp sleeve, for Han® 1A Protection covers	09 10 000 9959		



### Features

- Toolless assembly of Han® contact inserts
- Practical and easy handling
- Compact design saves space
- Optional with and without strain relief
- Suitable for standard rail TS 35

### Technical characteristics

Limiting temperature	-30 ... +90 °C
Number of relockings	<10
Degree of protection acc. to IEC 60529	IP65 IP20
Material (hood/housing)	Polyamide (PA)
Colour (hood/housing)	RAL 9005 (jet black)
Material (seal)	TPE
Colour (seal)	Yellow
Material (accessories)	Polyamide (PA)
Colour (accessories)	Black
Material flammability class acc. to UL 94	V-0
RoHS	compliant


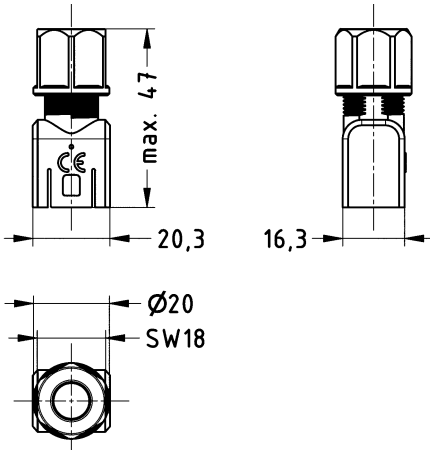
### Specifications and approvals

EN 45545-2 R22: HL1, HL2, HL3  
 EN 45545-2 R23: HL1, HL2, HL3  
 EN 45545-2 R24: HL1, HL2, HL3  
 IEC 61373 Category 1 Class B  
 DNV GL  
 UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 Please contact your local HARTING subsidiary for further information.


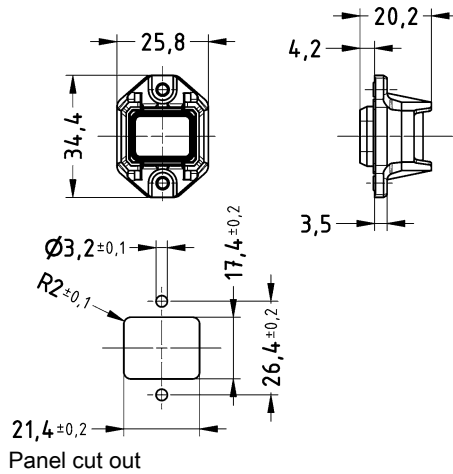

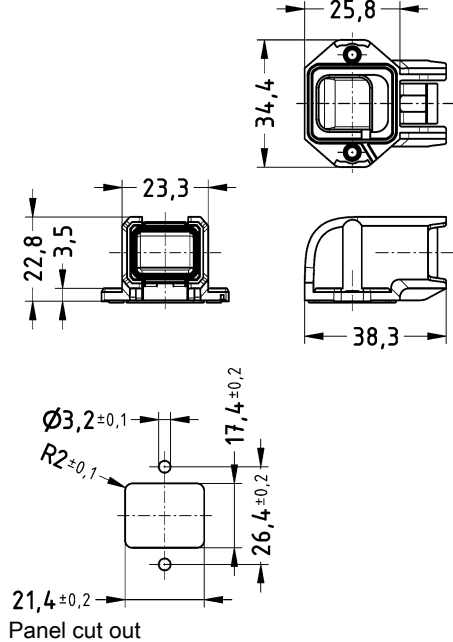

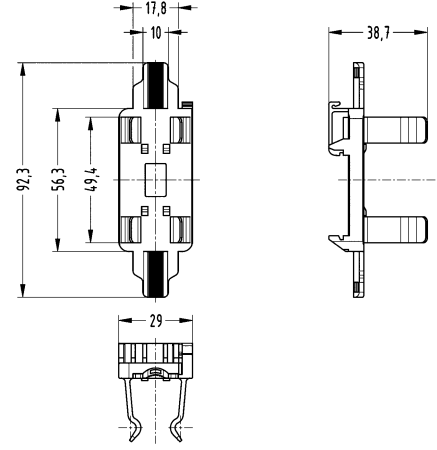



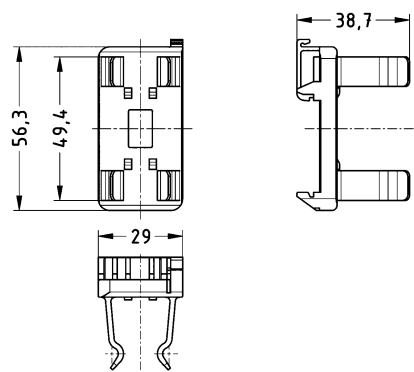

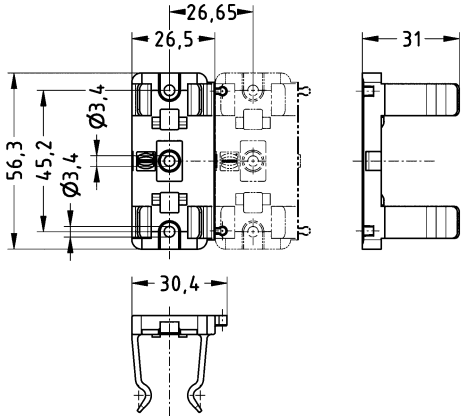

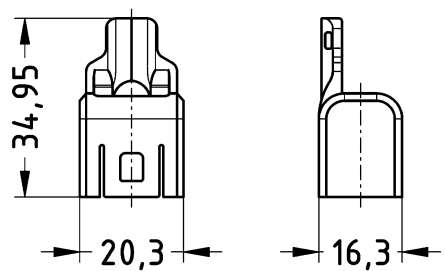
### Details

A Han® 1A configuration that only consists of inserts (with or without adapter 09 10 000 9911 / 09 10 000 9912) is an unenclosed connector according to IEC 61984. In this case protection against electric shock must be provided by the installation methods of the user.

Identification	Cable entry	Cable diameter (mm)	Part number	Drawing (dimensions in mm)
Han® 1A, Cable adapter, Top entry, IP65 	1x Integrated	5.7 ... 10, 6.3 ... 10 According to CSA-approval	09 10 000 0400	

Han  
1A

Identification	Cable entry	Cable diameter (mm)	Part number	Drawing (dimensions in mm)
<p>Han® 1A, Bulkhead mounted housing, Straight, IP65</p> 			09 10 000 0300	 <p>Panel cut out</p>
<p>Han® 1A, Bulkhead mounted housing, Angled, IP65</p> 			09 10 000 0800	 <p>Panel cut out</p>
<p>Han® 1A, Adapter, for mounting on top hat rails, With strain relief</p> 			09 10 000 9911	

Identification	Cable entry	Cable diameter (mm)	Part number	Drawing (dimensions in mm)
<p>Han® 1A, Adapter, for mounting on top hat rails</p> 			09 10 000 9912	
<p>Han® 1A, Mounting frames, for wall mounting</p> 			09 10 000 9908	
<p>Han® 1A, Strain relief, IP20</p> <p>Pack contents: Cable tie is included within the delivery</p>  <p>A Han® 1A configuration that only consists of inserts (with or without strain relief, 09 10 000 5300) is an unenclosed connector. In this case protection against electric shock must be provided by the installation methods of the user. Only for use with single wires according to CSA approval.</p>			09 10 000 5300	


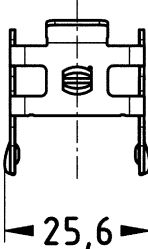
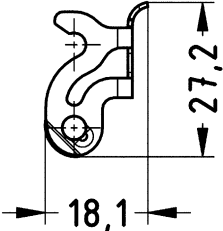
Han 1A

## Technical characteristics

Number of relockings	≥100
Material (accessories)	Stainless steel
RoHS	compliant

## Specifications and approvals

UL 1977 ECBT2.E235076  
 CSA-C22.2 No. 182.3 ECBT8.E235076  
 Please contact your local HARTING subsidiary for further information.

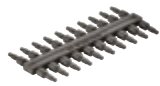
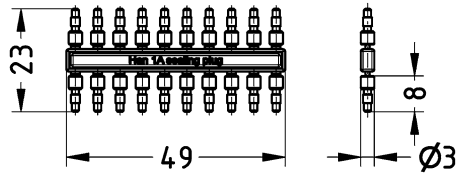

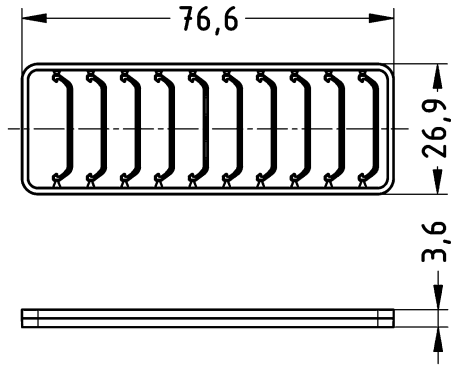
Identification	Part number	Drawing (dimensions in mm)	
<p>Han® 1A,                      Locking levers,                      for Han® 1A inserts with single locking lever</p> 	<p>09 10 000 5200</p>		

## Technical characteristics





Material (accessories)	Polycarbonate (PC) Polyamide (PA)
Colour (accessories)	Black Red Blue Green Yellow Violet
RoHS	compliant

## Specifications and approvals

UL 1977 ECBT2.E235076  
CSA-C22.2 No. 182.3 ECBT8.E235076  
Please contact your local HARTING subsidiary for further information.

Identification	Part number	Drawing (dimensions in mm)
<p>Han® 1A, Dummy plugs, for single wire seal for a partial assembly, Polycarbonate (PC), Pack contents: 20 pieces per frame</p> 	09 10 000 9909	
<p>Han® 1A, Coding element, Polyamide (PA), Pack contents: 10 pieces per frame</p> 	<p>09 10 000 9902 09 10 000 9903 09 10 000 9901 09 10 000 9905 09 10 000 9904</p>	

Han  
1A

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	
Locator, for single D-Sub standard contacts		09 99 000 0531	
Locator, for <i>har-speed</i> M12 male contacts		09 99 000 0525	
Locator, for <i>har-speed</i> M12 female contacts		09 99 000 0635	



## Details

The high end tool with best performance.

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.

## Details

Robust allrounder with very good performance.

The service tool for on-site maintenance.

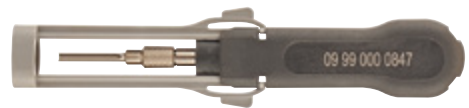
Identification	Conductor cross-section (mm <sup>2</sup> )	Part number	
<p>Crimping tool, Han D<sup>®</sup>: 0.14 ... 2.5 mm<sup>2</sup> (in the range from 0.14 ... 0.37 mm<sup>2</sup> only suitable for contacts 09 15 000 6107/6207 and 09 15 000 6127/6227), Han E<sup>®</sup>: 0.14 ... 4 mm<sup>2</sup>, Han-<i>Yellock</i><sup>®</sup>: 0.14 ... 4 mm<sup>2</sup>, Han<sup>®</sup> C: 1.5 ... 4 mm<sup>2</sup>, Pack contents: incl. locator, Handling instruction</p>		09 99 000 0888	
<p>Crimping tool, Han D<sup>®</sup>: 0.14 ... 1.5 mm<sup>2</sup> (in the range from 0.14 ... 0.37 mm<sup>2</sup> only suitable for contacts 09 15 000 6104/6204 and 09 15 000 6124/6224), 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.</p>	0.14 ... 4	09 99 000 0110	
<p>Service crimping tool, Han D<sup>®</sup>: 0.14 ... 1.5 mm<sup>2</sup> (in the range from 0.14 ... 0.37 mm<sup>2</sup> only suitable for contacts 09 15 000 6104/6204 and 09 15 000 6124/6224), Han E<sup>®</sup>: 0.5 ... 2.5 mm<sup>2</sup>, Han-<i>Yellock</i><sup>®</sup>: 0.5 ... 2.5 mm<sup>2</sup>, Pack contents: incl. locator, Please order Han-<i>Yellock</i><sup>®</sup> separately.</p>	0.14 ... 2.5	09 99 000 0021	

Identification

Part number

Insertion tool for crimp contacts,  
Small cross-section,  
Variable length of blade,  
Han D<sup>®</sup>,  
Han E<sup>®</sup>,  
Han-*Yellock*<sup>®</sup>

09 99 000 0847



Removal tool,  
Han D<sup>®</sup>

09 99 000 0012



Insertion / removal tools,  
for D-Sub crimp contact,  
Han<sup>®</sup> 1A  
Suitable for a max. cable diameter of 1.6 mm

09 99 000 0809



**Armenia:**

refer to Russia

**Australia**

HARTING Pty. Ltd.  
Suite 11 / 2 Enterprise Drive Bundoora  
3083, University Hill Melbourne, Victoria  
Phone 1800 201 081 (toll free calling  
within AUS)  
+61 3 9466 7088  
au@HARTING.com

**Australia and Oceania:**

refer to Australia

**Austria**

HARTING Ges.m.b.H.  
Deutschstraße 19  
1230 Wien  
Phone +43 161 621 21  
at@HARTING.com

**Azerbaijan:**

refer to Turkey

**Baltic States:**

refer to Finland

**Belarus:**

refer to Russia

**Belgium**

HARTING N.V.  
Z.3 Doornveld 23  
1731 Zellik  
Phone +32 2 466 0190  
be@HARTING.com

**Bosnia Herzegovina:**

refer to Austria

**Brazil**

HARTING Ltda.  
Alameda Caiapós, 643  
06460-110- Barueri - São Paulo  
Phone +55 11 5035 0073  
br@HARTING.com

**Canada**

HARTING Canada Inc.  
475 Dumont Avenue  
Suite 300  
Dorval, Quebec, H9S 5W2  
Phone +1 855 659-6653  
info.ca@HARTING.com

**Central America and the Caribbean:**

refer to USA

**Central Asia:**

refer to Russia

**China**

HARTING (Zhuhai) Sales Ltd.  
Room 3501, Grand Gateway I  
No. 1 Hong Qiao Road  
Xu Hui District  
Shanghai 200030  
Phone +86 21 3418 9758  
cn@HARTING.com

**Croatia:**

refer to Austria

**Czech Republic**

HARTING s.r.o.  
Mlýnská 2  
160 00 Praha 6  
Phone +420 220 380 495  
cz@HARTING.com

**Denmark**

HARTING ApS  
Resilience House  
Lysholt Allé 8  
7100 Vejle  
Phone +45 70 25 00 32  
dk@HARTING.com

**Finland**

HARTING Oy  
Teknobulevardi 3-5  
01530 Vantaa  
Phone +358 207 291 510  
fi@HARTING.com

**France**

HARTING France EURL  
ZAC Paris Nord 2  
181 avenue des Nations  
95934 ROISSY CDG  
Phone +33 1 4938 3400  
fr@HARTING.com

**Germany**

HARTING Deutschland  
GmbH & Co. KG  
Simeons carré 1, D-32427 Minden  
Phone +49 571 8896 0  
de@HARTING.com

**Georgia:**

refer to Russia

**Great Britain**

HARTING Limited  
Caswell Road  
Brackmills Industrial Estate  
NN4 7PW GB – Northampton  
Phone +44 1604 82 75 00  
salesuk@HARTING.com

**Greece:**

refer to Italy

**Hong Kong**

HARTING (HK) Limited  
Regional Office Asia Pacific  
3512, Metroplaza Tower 1  
223 Hing Fong Road  
Kwai Fong, N. T.  
Phone +852 2423 7338  
ap@HARTING.com

**Hungary**

HARTING Magyarország Kft.  
Fehérvári út 89-95  
1119 Budapest  
Phone +36 1 205 34 64  
hu@HARTING.com

**India**

HARTING (India) Private Limited  
7th Floor (West Wing)  
Central Square II  
Unit No.B 19 part, B 20 & 21  
TVK Industrial Estate  
Guindy, Chennai 600032  
Phone +91-44-43560415  
in@HARTING.com

**Ireland:**

refer to Great Britain

**Israel:**

refer to Turkey

**Italy**

HARTING S.R.L.  
Via dell' Industria 7  
20090 Vimodrone (MI)  
Phone +39 02 250801  
it@HARTING.com

**Japan**

HARTING K.-K.  
Yusen Shin-Yokohama  
1 Chome Bldg., 2F 1-7-9,  
Shin-Yokohama, Kohoku-ku  
Yokohama 222-0033  
Phone +81 45 476 3456  
jp@HARTING.com

**Korean Republic**

HARTING Korea Co. Ltd.  
B-B108, Woolim Lions Valley 5th  
302 Galmachi-ro, Jungwon-gu  
Seongnam-si, Gyeonggi-do 13201  
Phone +82 31 750 0380  
kr@HARTING.com

**Kosovo:**

refer to Austria

**Macedonia:**

refer to Austria

**Malta:**

refer to Italy

**Mexico**

HARTING Mexico S.A. de C.V.  
IOS Torre Virreyes  
Pedregal No. 24, Co. Molino Del Rey  
Suites 357 A, B, C  
Del Miguel Hidalgo, Mexico D.F. 11600  
Phone +1 800 123 0415  
HARTING.mexico@HARTING.com

**Middle East:**

refer to United Arab Emirates

**Montenegro:**

refer to Austria

**Netherlands**

HARTING B.V.  
Larenweg 44  
5234 's-Hertogenbosch  
Phone +31 736 410 404  
nl@HARTING.com

**Norway**

HARTING A/S  
Østensjøveien 36  
0667 Oslo  
Phone +47 22 700 555  
no@HARTING.com

**Pakistan:**

refer to United Arab Emirates

**Poland**

HARTING Polska Sp. z o.o.  
ul. Duńska 11  
54-427 Wrocław  
Phone +48 71 352 81 71  
pl@HARTING.com

**Romania**

HARTING Romania SCS  
Str. Europa Unita nr 21  
550018 Sibiu  
Phone +40 369 102 610  
ro@HARTING.com

**Russia**

LLC HARTING  
Sverdlovskaya nab., 44, lit. Yu, office 612  
195027, St. Petersburg  
Phone +7 812 327 6477  
ru@HARTING.com

**Serbia:**

refer to Austria

**Singapore**

HARTING Singapore Pte. Ltd.  
25 International Business Park  
#04-108 German Centre  
SGP-Singapore 609916  
Phone +65 6225 5285  
sg@HARTING.com

**Slovakia**

HARTING s.r.o.  
Slovakia branch  
Štefániková Trieda 71, (areál pivovaru)  
949 01 Nitra  
Phone +421 37 655 9089  
sk@HARTING.com

**Slovenia:**

refer to Austria

**South Africa**

HARTING South Africa Proprietary  
Limited  
Ground Floor, Twickenham Building  
The Campus, Cnr Main & Sloane Street  
Bryanston  
Johannesburg (Bryanston)  
2021  
Phone +27 (0) 11 575 0017  
za@HARTING.com

**South America:**

refer to Brazil

**South Asia:**

refer to Singapore

**South Pacific:**

refer to Australia

**Spain**

HARTING Iberia S.A.U.  
C/Viriato, 47 8º Planta  
Edificio Numancia, 1  
08014 Barcelona  
Phone +34 933 638 484  
es@HARTING.com

**Sub-Sahara countries:**

refer to South Africa

**Sweden**

HARTING AB  
Gustavslundsvägen 141B  
167 51 Bromma  
Phone +46 8 445 7171  
se@HARTING.com

**Switzerland**

HARTING AG  
Volketswil branch  
Hofwiesenstrasse 4 A  
8604 Volketswil  
Phone +41 44 908 20 60  
ch@HARTING.com

**Taiwan**

HARTING Taiwan Ltd.  
Room 1, 5/F, 495 GuangFu South Road  
RC-110 Taipei  
Phone +886 227 586 177  
tw@HARTING.com

**Turkey**

HARTING Türkiye Elektronik Ticaret  
Limited Sirketi  
Bayar Cad. Şehit İknur Keleş Sok.  
Dural Plaza No:3 K.11  
34742 Kozyatagi – Istanbul  
Phone +90 216 688 81 00  
tr@HARTING.com

**Ukraine:**

refer to Poland

**United Arab Emirates**

HARTING Middle East FZ-LLC  
Knowledge Village  
Block 2A - Office F72  
P.O. Box: 454372  
Dubai  
Phone +971 4 453 9737  
uae@HARTING.com

**HARTING Inc. of North America**

1370 Bowes Road  
USA-Elgin, Illinois 60123  
Phone +1 847 741 1500  
us@HARTING.com



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## Other countries and general contact



HARTING  
Electric GmbH & Co. KG  
P.O. Box 1473  
D-32328 Espelkamp  
Germany  
Phone +49 5772/47-97100  
[electric@HARTING.com](mailto:electric@HARTING.com)  
[www.HARTING.com](http://www.HARTING.com)

HARTING  
Electronics GmbH  
P.O. Box 1433  
32328 Espelkamp  
Germany  
Phone +49 5772/47-97200  
[electronics@HARTING.com](mailto:electronics@HARTING.com)  
[www.HARTING.com](http://www.HARTING.com)



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