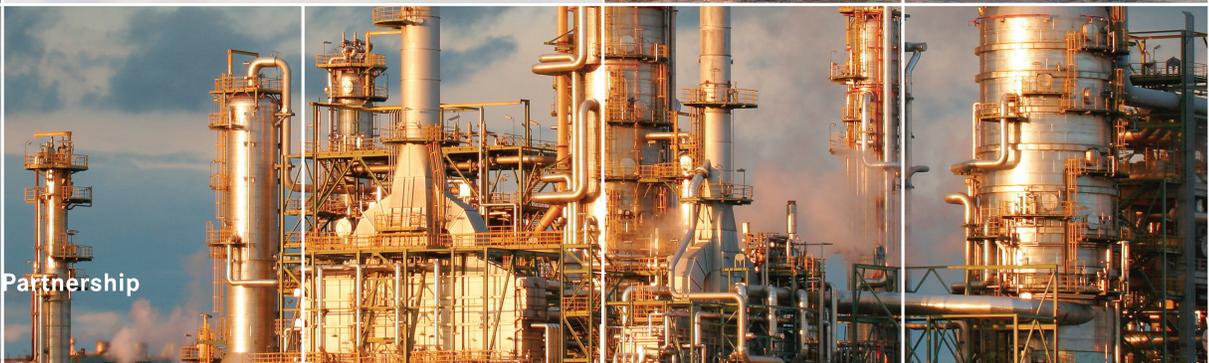
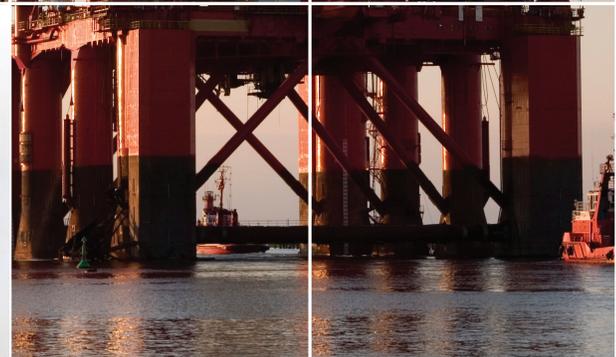




Pushing Performance



People | Power | Partnership

Connectivity Solutions for Hazardous locations

Transforming customer wishes into concrete solutions



The HARTING Technology Group is skilled in the fields of electrical, electronic and optical connection, transmission and networking, 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 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 Enclosures and Shop Systems.

The HARTING Group currently comprises 36 subsidiary companies and worldwide distributors employing a total of approximately 3,500 staff.

We aspire to top performance.

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

Always at hand, wherever our customers may be.

Increasing industrialization is creating growing markets characterized by widely diverging demands and requirements. The search for perfection, increasingly efficient processes and reliable technologies is a common factor in all sectors across the globe.

HARTING is providing these technologies – in Europe, America and Asia. The **HARTING** professionals at our international subsidiaries engage in close, partnership based interaction with our customers, right from the very early product development phases, in order to realize customer demands and requirements in the best possible manner.

Our people on location 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 serve our customers with the best possible solutions, **HARTING** is able to contribute a great deal more and play a closely integrative role in the value creation process.

From ready assembled cables through to control racks or ready-to-go control desks: Our aim is to generate the maximum benefits for our customers – without compromise!

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 to new requirements, which is why **HARTING** ranks among the first companies 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 mature network systems. In the course of many years of close, trust-based cooperation with its customers, the HARTING Technology Group has advanced to one of the worldwide leading specialists for connector technology. Extending beyond the basic functionalities demanded, we offer individual customers specific and innovative solutions. These tailored solutions deliver sustained effects, provide investment security and enable customers to achieve strong added value.

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

In order to develop connectivity and network solutions serving an exceptionally wide range of connector applications and task scopes in a professional and cost optimized manner, HARTING not only commands the full array of conventional tools and basic technologies. Over and beyond these capabilities, HARTING is constantly harnessing and refining its broad base of knowledge and experience to create new solutions that ensure continuity at the same time. In securing this know-how lead, HARTING draws on a wealth of sources from both in-house research and the world of applications alike.

Salient examples of these sources of innovative knowledge include microstructure technologies, 3D design and construction technology, as well as high temperature

or ultrahigh frequency applications that are finding use in telecommunications or 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 or stainless steel.

HARTING solutions extend across technology boundaries.

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 far more than components, and represent mature, comprehensive solutions attuned to individual customer requirements and wishes. The range covers ready-to-use cable configurations, completely assembled backplanes and board system carriers, as well as fully wired and tested control panels.

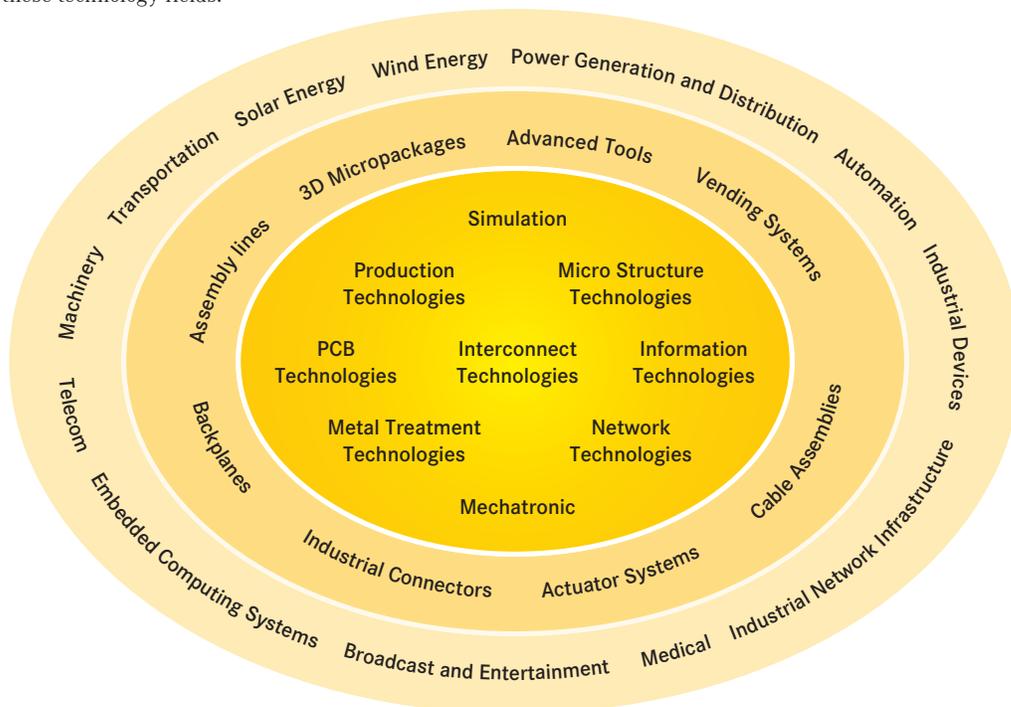
In order to ensure the future proof design of RF- and EMC-compatible interface solutions, the central HARTING laboratory (certified to EN 45001) provides simulation tools, as well as experimental, testing and diagnostics facilities all the way through to scanning electron microscopes. In the selection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



HARTING knowledge is practical know-how generating synergy effects.

HARTING commands decades of experience with regard to the applications conditions of connectors in telecommunications, computer and network technologies and medical technologies, as well as industrial automation technologies, such as the mechanical engineering and plant engineering areas, in addition to the power generation industry or the transportation sector. HARTING is highly conversant with the specific application areas in all of these technology fields.

The key focus is on applications in every solution approach. In this context, uncompromising, superior quality is our hallmark. Every new solution found will invariably flow 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. In this way, HARTING is synergy in action.



These connectors are approved for Class I Division 2 Environments



Certain hazardous environments, including those found in oil & gas exploration, petrochemical plants, fuel storage sites, and pharmaceutical or food manufacturing, require explosion-proof or ATEX-rated connectors. There are many different classifications in this space, but typically the connectors in this space have focused on the Class I, Div. 2 or the IS space, with limited cost effective solutions for the Class I Div. 2 environment.

However, the connectivity options in the Class I, Div. 2 space have just increased. HARTING has been working with UL and ATEX to add the rectangular portfolio to the choice of connectors that a customer / OEM can use in an explosive environment. The Han® Ex , an extension of the Han® product line, meets all the preconditions for the implementation of high quality connectivity solutions in application areas with explosion protection requirements.

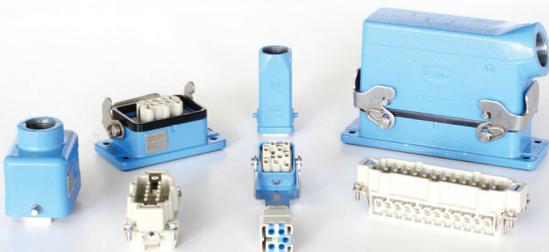


Han® Ex – product offering

The product portfolio for the Han® Ex offers complete connector systems able to supply up to 90V and 16 amps with various hood and housing sizes and pin counts from 3 up to 24. The housing's alloy was selected so that it can be used in pulverized methane-coal dust atmospheres. Furthermore, they offer an IP 65/67 protection class in the mated condition. The housing's blue color indicates that the connector is being used in a potentially hazardous location.

The Han® Ex product offerings come in various termination technologies, including the traditional crimp and screw varieties, along with the patented Han-Quick Lock® technology. This termination allows for time-saving and easy assembly without special tools. The reliable and vibration-proof connection provides maximum safety even in demanding applications.

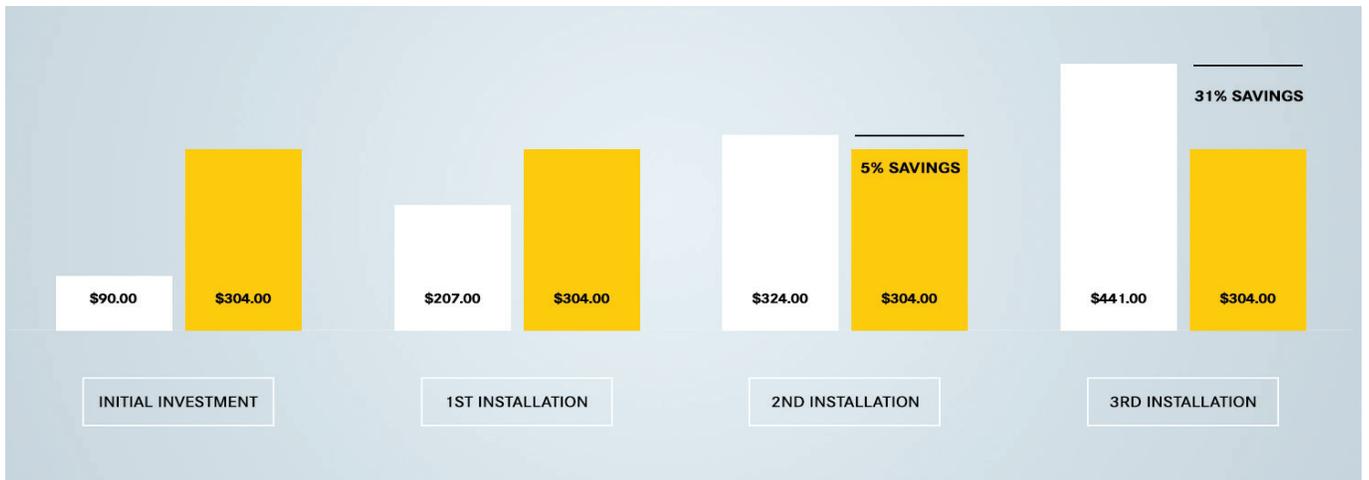
Now that the choice of connectors has increased and the size and cost is significantly lower, it allows our customers to look at the benefits of connectorization vs hardwiring again!



Benefits of connectors compel many to switch from hardwiring

Many thousands of equipment manufacturers have switched from point-to-point (hard) wiring to connector-based solutions for their control systems. Adopting progressive connectivity solutions has improved their unit costs and productivity. It allows them to turn around orders and complete installations much faster. With margins under increasing pressure, many OEMs have come to regard these benefits as a must-have. For many of their customers, the principal argument for connector-based wiring over hardwiring – a lower total cost of ownership over the service life of the machine – is equally compelling.

Using connectors makes the wiring a pre-engineered job that can be designed, assembled and tested as a harness and then quickly integrated into a machine or system as it takes shape. Some time is invested in assembling the harness, but then installation only takes a fraction of the time hardwiring requires. The risk of wiring errors is virtually eliminated.



Hardwiring: The cost myth

Most OEMs that compare their use of hardwiring and connectors find connectors save them time and money, particularly when the full cost of making hardwired connections is recognized. Unlike connector-based wiring where most of the attributable costs are incurred once, up front, the costs associated with hardwiring are recurrent and often unpredictable because of the possibility of wiring errors. Experience shows that whatever a company’s costs for hard-wiring in-house, there is about a 30% premium doing such connections in the field, for installations or for warranty service and repairs.

**30%
SAVINGS**

HARTING leads the way

HARTING has based its leadership position on developing new connector concepts and adapting existing ones to more precisely meet the evolving needs of its customer base. Choosing the right connector solution for the job will optimize the benefits of connectorization, improving the OEM’s margins while giving end users the lowest possible cost of ownership and greater peace of mind.

General Description: The connectors are designed to meet the intrinsic safety requirements for ignition protection class in explosive hazardous areas, Class I Div 2. The Han® Ex product portfolio offers complete connector systems consisting of housings and inserts, including housings made from an alloy that can be used in pulverized methane-coal dust atmospheres. They also offer ignition protection class IP 65/67 in the mated condition. The housing's blue color differentiates it from the standard Han® connector which is not suitable for use in explosive environments. The contact inserts provide a high number of pins and meet the standards of the ignition protection class even in the tightest spaces.

3A Family Kit

Page

Family Overview	10
<p>The Han® Ex 3A connector kits are available for requirements ranging from 3 contacts up to 12 contacts. The kit comes complete with hood, housing, male insert and female insert (crimp pins, if needed, are to be ordered separately). This is a small form factor connector series that takes up minimal space and offers two varieties of termination.</p>	
<p>Han-Quick Lock®</p>	
10361040003.....	11
10361080007.....	11
<p>Screw termination</p>	
10361030001.....	12
10361040001.....	12
<p>Crimp termination</p>	
10361070001.....	12
10361080006.....	13
10361120001.....	13
Crimp contacts.....	13

B Size Family Connectors

Page

Family Overview	14
<p>The Han® Ex B family size is available for requirements ranging from 6 contacts up to 24 contacts. There is a wide range of options for building your connector including crimp or screw termination types on the inserts, top or side entry as well as the metric gland opening size on the hood, housing, male insert and female insert (crimp pins, if needed, are to be ordered separately). The Han® Ex offering is an industrial grade connector series, based on the proven Han® E series inserts and Han® B family of hoods and housings, that was modified especially for applications in hazardous locations.</p>	
<p>Crimp inserts</p>	
6 – 24 contacts.....	15
Crimp pins.....	16
<p>Screw Inserts</p>	
6 – 24 contacts.....	15

B Size Family Connectors *Continued*

Page

Hoods

6B.....	17
10B.....	17
16B.....	18
24B.....	18

Housings

6B.....	19
10B.....	19
16B.....	19
24B.....	19

Accessories/Tools

Page

Crimp tool.....	20
Removal tools.....	20
Screwdriver kit.....	20



Connector Sets for explosion-proof environments

Features

- Connector sets especially for Class I, Division 2 explosive environments and intrinsically safe circuits.
- Suitable for Class I, Division 2 groups A, B, C, and D hazardous or unclassified locations, or intrinsically safe circuits.
- Hoods, housings and inserts in one set
- Inserts with compact design and a high number of connections
- Available with innovative Han-Quick Lock® termination technology

NOTICE Industrial connectors of the Han® Ex series are designed only for the use in intrinsically safe circuits of categories “ia”, “ib” and “ic” or Class I Division 2, Groups A, B, C or D hazardous locations.

- ▶ The explosion group will be defined by the intrinsically safe or Class I Division 2 equipment
- ▶ Temperature class T6 according to DIN EN 60 079-11

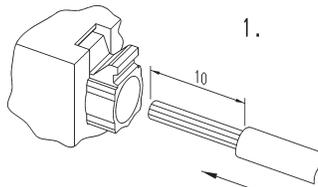
Technical characteristics

Specifications	DIN EN 60 079-0 DIN EN 60 079-11
Hoods/ housings	
Material	Zinc die cast
Color	RAL 5015 (blue)
Surface	powder coated
Locking element	stainless steel
Lever type	metal lever
Seal	NBR
Limiting temperatures	-20 °C ... +40 °C
Protection degree acc. to DIN EN 60 529 in locked position	IP67 is achieved with seal screw and cable gland
Inserts	
Number of contacts	3, 4, 7, 8, 12
Rated current	10 A
Rated voltage	90 V
Pollution degree	3
Insulation resistance	≥ 1010 Ω
Material	Polycarbonat
Limiting temperatures	-20 °C ... +40 °C
Mechan. working life - mating cycles	≥ 500
Contacts	
Material	copper alloy
Surface	
- hard-silver plated	3 µm Ag
Contact resistance	≤ 1 mΩ
Crimp termination	0.5 ... 2.5 mm ² AWG 20 ... 14
Han-Quick Lock® termination	0.5 ... 2.5 mm ² AWG 20 ... 14
Max. insulation diameter	3.6 mm
Screw termination	0.75 ... 1.5 mm ² AWG 18 ... 16

Identification	Part number	Size	Drawing	Dimensions in mm
Han® Ex 4A Quick Lock Set 	10 36 104 0003	3 A	<p>Panel cut out: 22 x 22 mm</p>	<p>Contact arrangement view: termination side</p>
Han® Ex 8D Quick Lock Set 	10 36 108 0007	3 A	<p>Panel cut out: 22 x 22 mm</p>	

Assembly manual

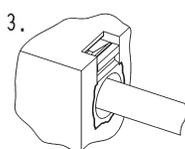
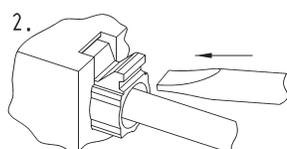
Remove cable jacket and strip the fine stranded wires



Do not twist the fine stranded wires!

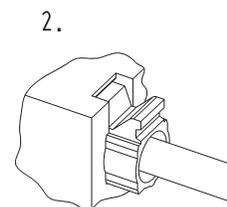
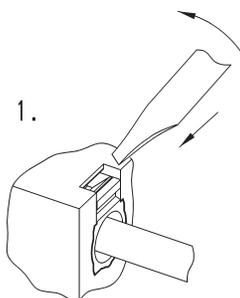


Push fine stranded wires into the Han-Quick Lock® contact and push the blue slide with a screw driver¹⁾ until it comes to a stop

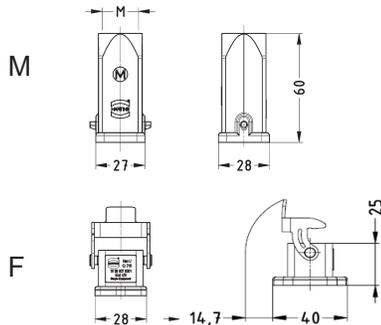
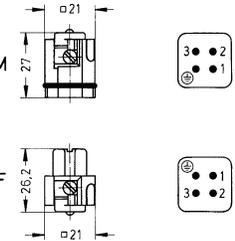
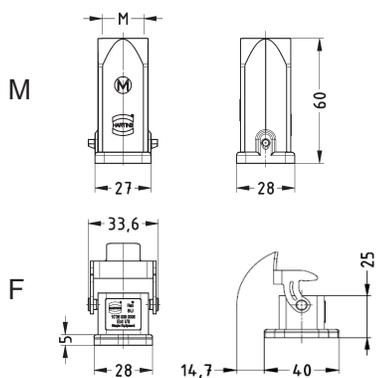
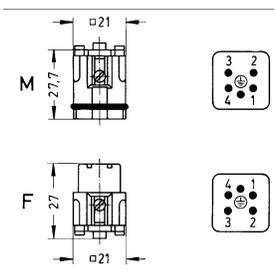
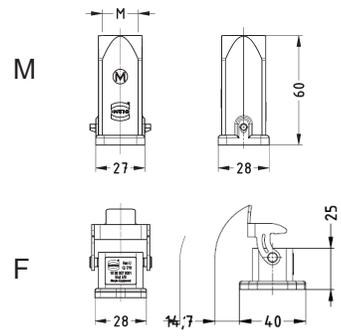
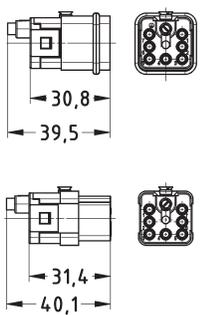


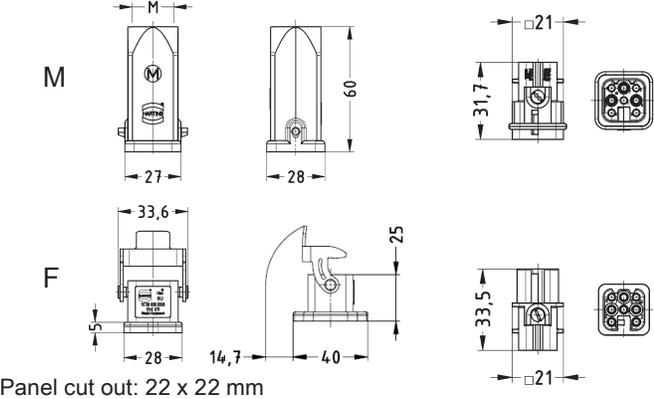
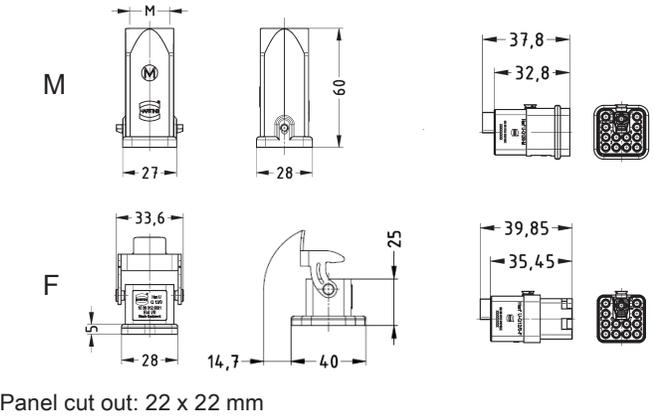
Removal manual

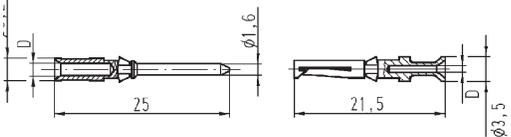
Please insert the screw driver¹⁾ at an angle of 45° into the opening and lever the blue slide out



¹⁾ Screw driver: 0.4 x 2.5 mm

Identification	Part number	Size	Drawing	Dimensions in mm
<p>Han® Ex 3A Set</p> <p>Screw Terminal</p> 	10 36 103 0001	3 A	 <p>Panel cut out: 22 x 22 mm</p>	 <p>Contact arrangement view: termination side</p>
<p>Han® Ex 4A Set</p> <p>Screw Terminal</p> 	10 36 104 0001	3 A	 <p>Panel cut out: 22 x 22 mm</p>	
<p>Han® Ex Q7 Set</p> <p>Order crimp contacts separately</p> 	10 36 107 0001	3 A	 <p>Panel cut out: 22 x 22 mm</p>	 <p>Contact arrangement view: termination side</p>

Identification	Part number	Size	Drawing	Dimensions in mm
Han® Ex 8D Set Order crimp contacts separately 	10 36 108 0006	3 A	 <p>Panel cut out: 22 x 22 mm</p>	
Han® Ex Q12 Set Order crimp contacts separately 	10 36 112 0001	3 A	 <p>Panel cut out: 22 x 22 mm</p>	

Identification	Wire gauge mm ²	Partnumber		Drawing	Dimensions in mm																								
		Male contact	Female contact																										
Crimp contact silver plated 	0.5 0.75 1.0 1.5 2.5	09 15 000 6103 09 15 000 6105 09 15 000 6102 09 15 000 6101 09 15 000 6106	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 colspan="2">Wire gauge</th> <th>Ø mm</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>0.5 mm²</td> <td>AWG 20</td> <td>1.1</td> <td>8 mm</td> </tr> <tr> <td>0.75 mm²</td> <td>AWG 18</td> <td>1.3</td> <td>8 mm</td> </tr> <tr> <td>1.0 mm²</td> <td>AWG 18</td> <td>1.45</td> <td>8 mm</td> </tr> <tr> <td>1.5 mm²</td> <td>AWG 16</td> <td>1.75</td> <td>8 mm</td> </tr> <tr> <td>2.5 mm²</td> <td>AWG 14</td> <td>2.25</td> <td>6 mm</td> </tr> </tbody> </table>	Wire gauge		Ø mm	Stripping length	0.5 mm ²	AWG 20	1.1	8 mm	0.75 mm ²	AWG 18	1.3	8 mm	1.0 mm ²	AWG 18	1.45	8 mm	1.5 mm ²	AWG 16	1.75	8 mm	2.5 mm ²	AWG 14	2.25	6 mm	
Wire gauge		Ø mm	Stripping length																										
0.5 mm ²	AWG 20	1.1	8 mm																										
0.75 mm ²	AWG 18	1.3	8 mm																										
1.0 mm ²	AWG 18	1.45	8 mm																										
1.5 mm ²	AWG 16	1.75	8 mm																										
2.5 mm ²	AWG 14	2.25	6 mm																										



Connectors for explosion hazardous environments

Features

- Hoods and housings in the sizes 6 B, 10 B, 16 B and 24 B
- Connectors especially for Class I, Division 2 explosive environments and intrinsically safe circuits.
- Suitable for Class I, Division 2 groups A, B, C, and D hazardous or unclassified locations, or intrinsically safe circuits.
- Inserts on the basis of Han® E with 6 to 24 contacts .
- Available in crimp and screw terminal termination types.

⚠ WARNING! Industrial connectors of the Han® Ex series are designed only for the use in intrinsically safe circuits of categories “ia”, “ib” and “ic” or Class I Division 2, Groups A, B, C or D hazardous locations.

- ▶ The explosion group will be defined by the intrinsically safe or Class I Division 2 equipment
- ▶ Temperature class T6 according to DIN EN 60 079-11

Technical characteristics

Specifications	DIN EN 60 079-0, -11, -14 DIN EN 60 664-1 DIN EN 61 984
Hoods/ housings	
Material	zinc die cast
Colour	RAL 5015 (blue)
Surface	powder coated
Locking element	stainless steel
Lever type	metal lever
Seal	NBR
Limiting temperatures	-20 °C ... +40 °C
Protection degree acc. to DIN EN 60 529 in locked position	IP65 is achieved with cable gland
Inserts	
Number of contacts	6, 10, 16, 24
Rated current	16 A
Rated voltage	90 V
Insulation resistance	≥ 10 ¹⁰ Ω
Material	polycarbonate
Limiting temperatures	-20 °C ... +40 °C
Mechan. working life - mating cycles	≥ 500
Contacts	
Material	copper alloy
Surface - hard-silver plated	3 μm Ag
Contact resistance	≤ 1 mΩ
Crimp termination	0.5 ... 2.5 mm ² AWG 20 ... 14
Max. insulation diameter	3.6 mm
Screw termination	0.75 ... 2.5 mm ² AWG 18 ... 14

Number of contacts

6, 10, 16, 24 +

Identification Part number
 Male insert (M) Female insert (F) Drawing Dimensions in mm

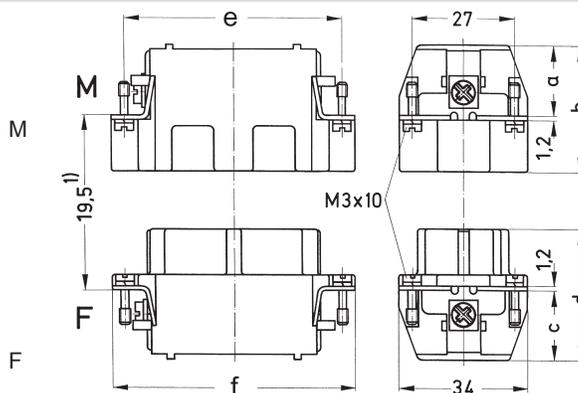
Han® Ex crimp insert 6 B²⁾

Screw terminal
 Crimp terminal



09 36 506 2601
 09 36 506 2602

09 36 506 2701
 09 36 506 2702



1) Distance for contact max. 21 mm

Size	a	b	c	d	e	f
6 B	19	34	19	36	44	51
10 B	19	34	19	36	57	64
16 B	19	34	19	36	77.5	84.5
24 B	19	34	19	36	104	111

Han® Ex crimp insert 10 B²⁾

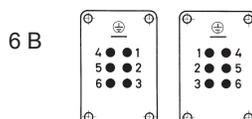
Screw terminal
 Crimp terminal



09 36 510 2601
 09 36 510 2602

09 36 510 2701
 09 36 510 2702

Contact arrangement
 view from
 termination side



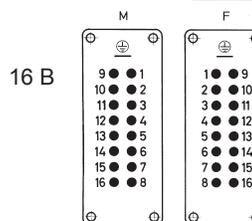
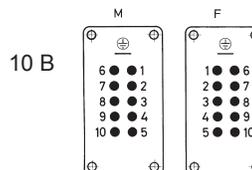
Han® Ex crimp insert 16 B²⁾

Screw terminal
 Crimp terminal



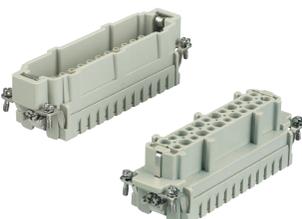
09 36 516 2601
 09 36 516 2602

09 36 516 2701
 09 36 516 2702



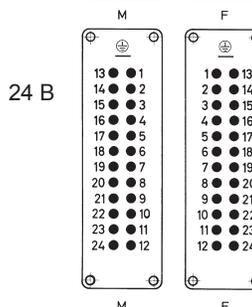
Han® Ex crimp insert 24 B²⁾

Screw terminal
 Crimp terminal



09 36 524 2601
 09 36 524 2602

09 36 524 2701
 09 36 524 2702



²⁾ Han® E crimp contacts can be ordered in the HARTING eCatalogue (www.HARTING.com)



Technical characteristics

Material (contact) copper alloy

Specifications and approvals

IEC 60664-1
IEC 61984

Details

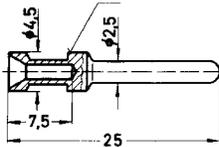
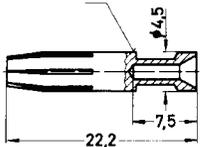
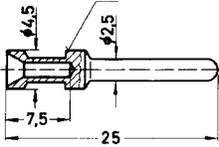
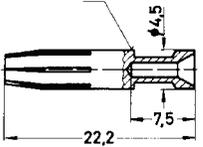
Crimping tools see chapter 90

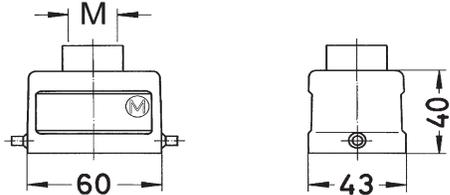
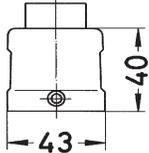
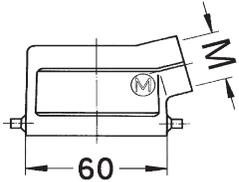
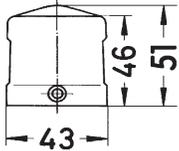
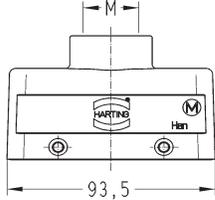
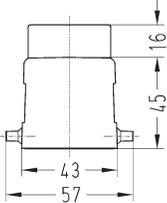
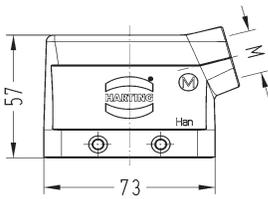
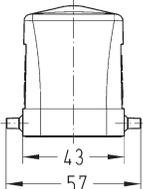
Remarks on the crimp technique

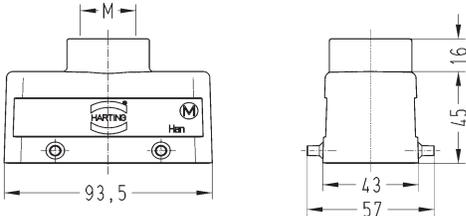
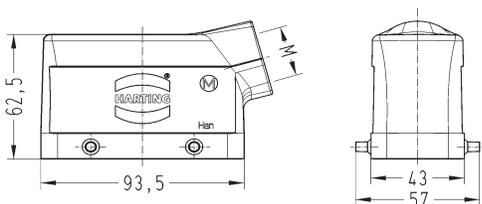
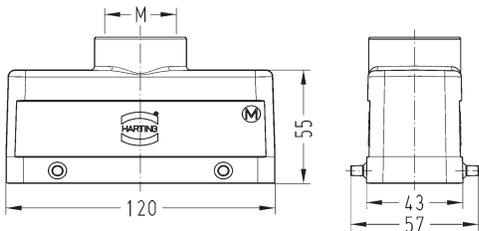
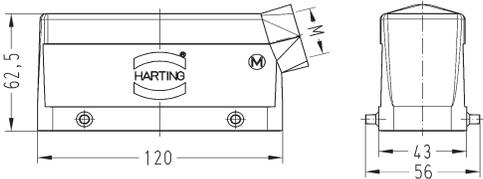
The wire gauges mentioned in the catalogue refer to geometric wire gauges of cables.

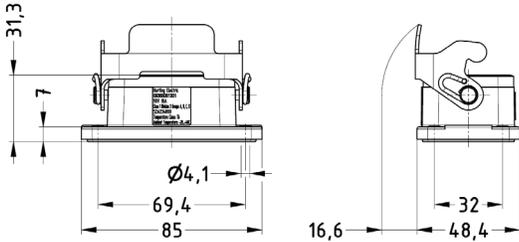
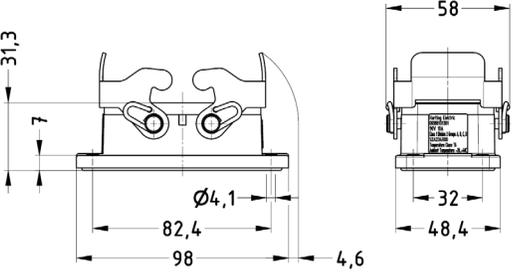
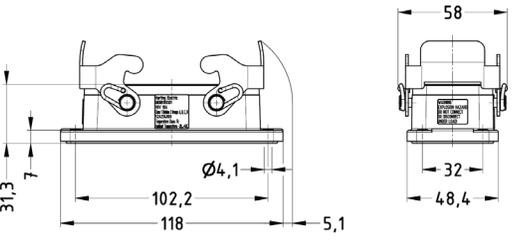
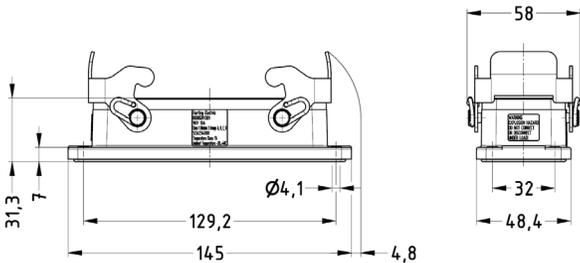
Coding pin

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.

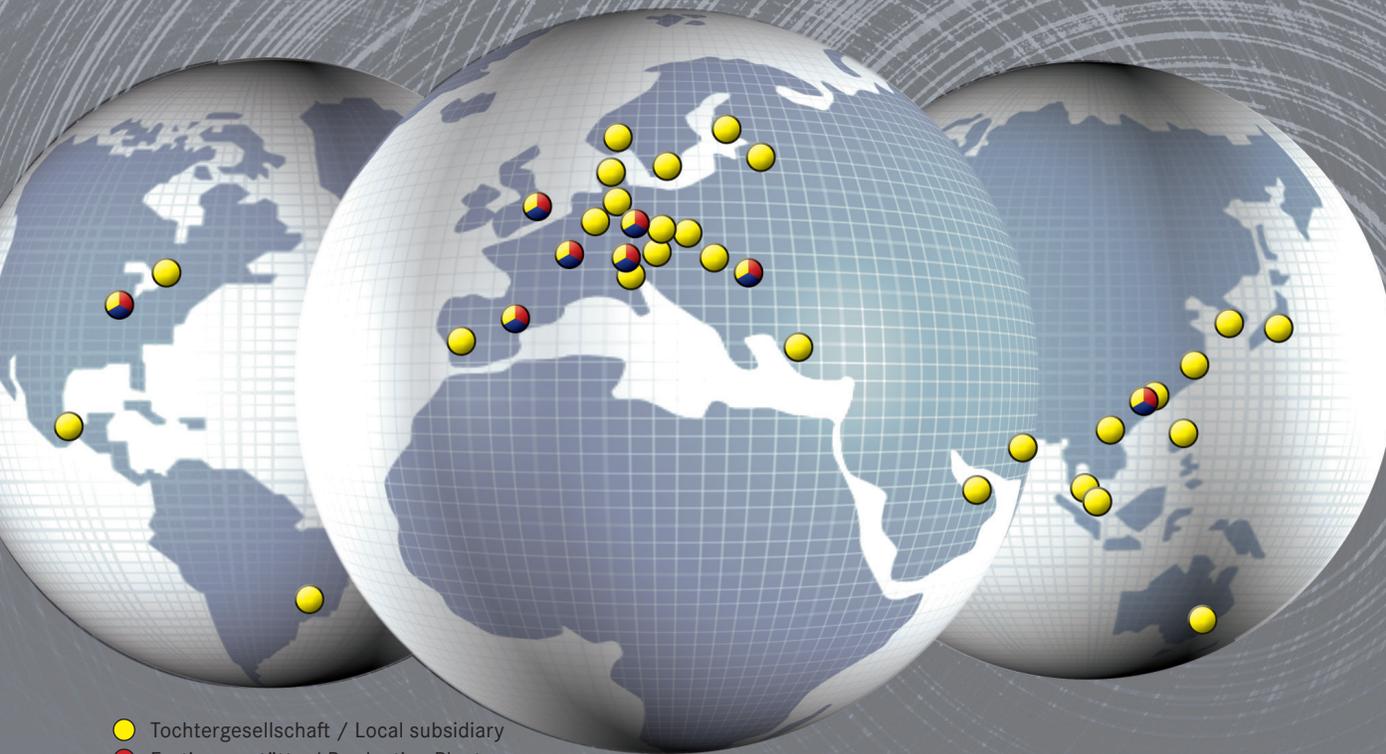
Identification	Wire cross section (mm ²)	Part number		Drawing Dimensions in mm																								
		male	female																									
Han E , Crimp contact, gold plated contacts, contact resistance ≤1 mOhm 	0.5	09 33 000 6122	09 33 000 6222	  <table border="1"> <thead> <tr> <th>Identification</th> <th colspan="2">Wire gauge</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>no groove</td> <td>0.5 mm²</td> <td>AWG 20</td> <td>7.5 mm</td> </tr> <tr> <td>1 groove*</td> <td>0.75 mm²</td> <td>AWG 18</td> <td>7.5 mm</td> </tr> <tr> <td>1 groove</td> <td>1 mm²</td> <td>AWG 18</td> <td>7.5 mm</td> </tr> <tr> <td>2 grooves</td> <td>1.5 mm²</td> <td>AWG 16</td> <td>7.5 mm</td> </tr> <tr> <td>3 grooves</td> <td>2.5 mm²</td> <td>AWG 14</td> <td>7.5 mm</td> </tr> </tbody> </table> <p>* on the back crimp collar</p>	Identification	Wire gauge		Stripping length	no groove	0.5 mm ²	AWG 20	7.5 mm	1 groove*	0.75 mm ²	AWG 18	7.5 mm	1 groove	1 mm ²	AWG 18	7.5 mm	2 grooves	1.5 mm ²	AWG 16	7.5 mm	3 grooves	2.5 mm ²	AWG 14	7.5 mm
	Identification	Wire gauge			Stripping length																							
	no groove	0.5 mm ²	AWG 20		7.5 mm																							
	1 groove*	0.75 mm ²	AWG 18		7.5 mm																							
	1 groove	1 mm ²	AWG 18		7.5 mm																							
2 grooves	1.5 mm ²	AWG 16	7.5 mm																									
3 grooves	2.5 mm ²	AWG 14	7.5 mm																									
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																										
Han E , Crimp contact, silver plated contacts, contact resistance ≤1 mOhm 	0.5	09 33 000 6121	09 33 000 6220	  <table border="1"> <thead> <tr> <th>Identification</th> <th colspan="2">Wire gauge</th> <th>Stripping length</th> </tr> </thead> <tbody> <tr> <td>no groove</td> <td>0.5 mm²</td> <td>AWG 20</td> <td>7.5 mm</td> </tr> <tr> <td>1 groove*</td> <td>0.75 mm²</td> <td>AWG 18</td> <td>7.5 mm</td> </tr> <tr> <td>1 groove</td> <td>1 mm²</td> <td>AWG 18</td> <td>7.5 mm</td> </tr> <tr> <td>2 grooves</td> <td>1.5 mm²</td> <td>AWG 16</td> <td>7.5 mm</td> </tr> <tr> <td>3 grooves</td> <td>2.5 mm²</td> <td>AWG 14</td> <td>7.5 mm</td> </tr> </tbody> </table> <p>* on the back crimp collar</p>	Identification	Wire gauge		Stripping length	no groove	0.5 mm ²	AWG 20	7.5 mm	1 groove*	0.75 mm ²	AWG 18	7.5 mm	1 groove	1 mm ²	AWG 18	7.5 mm	2 grooves	1.5 mm ²	AWG 16	7.5 mm	3 grooves	2.5 mm ²	AWG 14	7.5 mm
	Identification	Wire gauge			Stripping length																							
	no groove	0.5 mm ²	AWG 20		7.5 mm																							
	1 groove*	0.75 mm ²	AWG 18		7.5 mm																							
	1 groove	1 mm ²	AWG 18		7.5 mm																							
2 grooves	1.5 mm ²	AWG 16	7.5 mm																									
3 grooves	2.5 mm ²	AWG 14	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																										

Identification	Part number	Cable entry	Drawing	Dimensions in mm
<p>Hood 6 B top entry</p> 	<p>19 36 506 1440 19 36 506 1441</p>	<p>M20 M25</p>		
<p>Hood 6 B side entry</p> 	<p>19 36 506 1540 19 36 506 1541</p>	<p>M20 M25</p>		
<p>Hood 10 B top entry</p> 	<p>19 36 510 1420 19 36 510 1421</p>	<p>M20 M25</p>		
<p>Hood 10 B side entry</p> 	<p>19 36 510 1520 19 36 510 1521</p>	<p>M20 M25</p>		

Identification	Part number	Cable entry	Drawing	Dimensions in mm
<p>Hood 16 B top entry</p> 	<p>19 36 516 1421 19 36 516 1422</p>	<p>M25 M32</p>		
<p>Hood 16 B side entry</p> 	<p>19 36 516 1521 19 36 516 1522</p>	<p>M25 M32</p>		
<p>Hood 24 B top entry</p> 	<p>19 36 524 1421 19 36 524 1422</p>	<p>M25 M32</p>		
<p>Hood 24 B side entry</p> 	<p>19 36 524 1521 19 36 524 1522</p>	<p>M25 M32</p>		

Identification	Part number	Drawing	Dimensions in mm
<p>Housing, bulkhead mounting 6 B</p> 	<p>09 36 506 1301</p>		
<p>Housing, bulkhead mounting 10 B</p> 	<p>09 36 510 1301</p>		
<p>Housing, bulkhead mounting 16 B</p> 	<p>09 36 516 1301</p>		
<p>Housing, bulkhead mounting 24 B</p> 	<p>09 36 524 1301</p>		

Identification	Wire cross section (mm ²)	Part number	
<p>Crimping tool, Han D®: 0.14 ... 2.5 mm², Han E®: 0.14 ... 4 mm², Han-Yellock®: 0.14 ... 4 mm², Han® C: 1.5 ... 4 mm², The high end tool with best performance. Range of delivery: locator included, handling instruction For wire gauges from 0.14 und 0.25 mm² please use the contacts 09150006107, 6207, 6127 or 6227.</p>	0.14-4	09 99 000 0888	
for optional testing		09 99 000 0889	
<p>Han D®, Han E®, Han-Yellock®, Han® C, Locator for crimp tool, as spare part</p>		09 99 000 0887	
<p>Han D®, Removal tool, Insert tool from the mating side of the connector until it comes to a stop., By putting additional pressure on the tool the contact is unlocked and pushed out towards the termination side., When using the removal tool (...0052) the contact is unlocked by pushing the central plunger.</p>		09 99 000 0012	
<p>Han E®, Removal tool for crimp contacts, Insert the tool from the termination side until it comes to a stop., After that the contact with the attached wire can be pulled out of the isolator body.</p>		09 99 000 0319	
<p>Screw Driver Set Slimline, Insolated blade for slim assembly. Range of delivery: slim bit screw driver 0.6 x 3.5, slim bit screw driver 0.8 x 4.5, Phillips screw driver PH1 (191 x 30 mm), Phillips screw driver PH2 (218 x 36 mm)</p>		09 99 000 0844	



- Tochtergesellschaft / Local subsidiary
- Fertigungsstätte / Production Plant
- F & E / R & D

Sales Network – worldwide



Afghanistan

see United Arab Emirates

Albania

see Austria

Argentina

Condelectric S.A.
Hipólito Yrigoyen 2591
1640 – Martínez
Buenos Aires – Argentina
Phone +54 11 4836 1053
Fax +54 11 4836 1053
comercial@condelectric.com.ar

Armenia

see Russia

Australia

HARTING Pty Ltd
Suite 11 / 2 Enterprise Drive
Bundoora 3083, AUS-Victoria
Phone +61 3 9466 7088
Fax +61 3 9466 7099
au@HARTING.com
www.HARTING.com.au

Austria

HARTING Ges.m.b.H.
Deutschstraße 19, A-1230 Wien
Phone +431 6162121
Fax +431 6162121-21
at@HARTING.com
www.HARTING.at

Azerbaijan

see Turkey

Bahrain

see United Arab Emirates

Belarus

see Russia

Belgium

HARTING N.V./S.A.
Z.3 Doornveld 23, B-1731 Zellik
Phone +32 2 466 0190
Fax +32 2 466 7855
be@HARTING.com
www.HARTING.be

Bosnia and Herzegovina

see Austria

Brazil

HARTING Ltda.
Rua Major Paladino 128 –
Prédio 11
CEP 05307-000 – São Paulo –
SP – Brasil
Phone +55 11 5035 0073
Fax +55 11 5034 4743
br@HARTING.com
www.HARTING.com.br

Brunei

see Singapore

Bulgaria

see Austria

Canada

HARTING Canada Inc.
8455 Trans-Canada Hwy., Suite
202
St. Laurent, QC, H4S1Z1, Canada
Phone 855-659-6653
Fax 855-659-6654
info.ca@HARTING.com
www.HARTING.ca

China

HARTING (Zhuhai)
Manufacturing Co., Ltd.
Shanghai Branch, Room 3501- 3503,
No. 1, Hong Qiao Road, Grand Gate-
way I
Xu Hui District, Shanghai 200030,
China
Phone +86 21 6386 2200
Fax +86 21 6386 8636
cn@HARTING.com
www.HARTING.com.cn

Croatia

see Austria

Czech Republic

HARTING s.r.o.
Mlýnská 2, CZ-160 00 Praha 6
Phone +420 220 380 460
Fax +420 220 380 461
cz@HARTING.com
www.HARTING.cz

Denmark

HARTING ApS
Hjulmagervej 4a
DK – 7100 Vejle
Phone +45 70 25 00 32
Fax +45 75 80 64 99
dk@HARTING.com
www.HARTING.dk

Egypt

see United Arab Emirates

Estonia

see Finland

Finland

HARTING Oy
Teknobulevardi 3-5
FI-01530 Vantaa
Phone +358 207 291 510
Fax +358 207 291 511
fi@HARTING.com
www.HARTING.fi

<p>France HARTING France 181 avenue des Nations, Paris Nord 2 BP 66058 Tremblay en France F-95972 Roissy Charles de Gaulle Cédex Phone +33 1 4938 3400 Fax +33 1 4863 2306 fr@HARTING.com www.HARTING.fr</p>	<p>India HARTING India Pvt Ltd 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 +91-44-43456262 Fax +91-44-43560417 in@HARTING.com www.HARTING.in</p>	<p>Korea (South) HARTING Korea Limited #308 Yatap Leaders Building 342-1, Yatap-dong, Bundang-gu Sungnam-City, Kyunggi-do 463-828, Republic of Korea Phone +82 31 781 4615 Fax +82 31 781 4616 kr@HARTING.com www.HARTING.co.kr</p>	<p>Norway HARTING A/S Øststensjøveien 36, N-0667 Oslo Phone +47 22 700 555 Fax +47 22 700 570 no@HARTING.com www.HARTING.no</p>
<p>Germany HARTING Deutschland GmbH & Co. KG P.O. Box 2451, D-32381 Minden Simeons carré 1, D-32427 Minden Phone +49 571 8896 0 Fax +49 571 8896 282 de@HARTING.com www.HARTING.de</p>	<p>Indonesia see Malaysia</p>	<p>Kosovo see Austria</p>	<p>Oman see United Arab Emirates</p>
<p>Georgia see Russia</p>	<p>Iran see United Arab Emirates</p>	<p>Kuwait see United Arab Emirates</p>	<p>Pakistan see United Arab Emirates</p>
<p>Great Britain HARTING Ltd., Caswell Road Brackmills Industrial Estate GB-Northampton, NN4 7PW Phone +44 1604 827 500 Fax +44 1604 706 777 gb@HARTING.com www.HARTING.co.uk</p>	<p>Iraq see United Arab Emirates</p>	<p>Latvia see Finland</p>	<p>Philippines see Malaysia</p>
<p>Hong Kong HARTING (HK) Limited Regional Office Asia Pacific 3512 Metroplaza Tower 1 223 Hing Fong Road Kwai Fong, N. T., Hong Kong Phone +852 2423 7338 Fax +852 2480 4378 ap@HARTING.com www.HARTING.com.hk</p>	<p>Israel COMTEL Israel Electronic Solutions Ltd. Bet Hapamon, 20 Hataas st. P.O.Box 66 Kefar-Saba 44425 Phone +972-9-7677240 Fax +972-9-7677243 sales@comtel.co.il www.comtel.co.il</p>	<p>Lebanon see United Arab Emirates</p>	<p>Poland HARTING Polska Sp. z o. o. ul. Duńska 9 PL- 54-427 Wrocław Phone +48 71 352 81 71 Fax +48 71 350 42 13 pl@HARTING.com www.HARTING.pl</p>
<p>Hungary HARTING Magyarország Kft. Fehérvári út 89-95, H-1119 Budapest Phone +36 1 205 34 64 Fax +36 1 205 34 65 hu@HARTING.com www.HARTING.hu</p>	<p>Italy HARTING SpA Via Dell' Industria 7 I-20090 Vimodrone (Milano) Phone +39 02 250801 Fax +39 02 2650 597 it@HARTING.com www.HARTING.it</p>	<p>Lithuania see Finland</p>	<p>Portugal HARTING Iberia, S. A. CViriato, 47 8º, Edificio Numancia 1 E-08014 Barcelona Phone +351 219 673 177 Fax +351 219 678 457 es@HARTING.com www.HARTING.es/pt</p>
<p>Iceland see Great Britain</p>	<p>Japan HARTING K. K. Yusen Shin-Yokohama 1 Chome Bldg., 2F 1-7-9, Shin-Yokohama, Kohoku Yokohama 222-0033 Japan Phone +81 45 476 3456 Fax +81 45 476 3466 jp@HARTING.com www.HARTING.co.jp</p>	<p>Macedonia see Austria</p>	<p>Qatar see United Arab Emirates</p>
	<p>Jemen see United Arab Emirates</p>	<p>Malaysia (Office) HARTING Singapore Pte Ltd Malaysia Branch 11-02 Menara Amcorp Jln. Persiaran Barat 46200 PJ, Sel. D. E., Malaysia Phone +60 3 / 7955 6173 Fax +60 3 / 7955 5126 sg@HARTING.com</p>	<p>Republic of Moldova see Romania</p>
	<p>Jordan see United Arab Emirates</p>	<p>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</p>	<p>Romania HARTING Romania SCS Europa Unita str. 21 550018-Sibiu, Romania Phone +40 369-102 671 Fax +40 369-102 622 ro@HARTING.com www.HARTING.com</p>
	<p>Kazakhstan see Russia</p>	<p>Montenegro see Austria</p>	<p>Russia HARTING ZAO Maliy Sampsoniyevsky prospect 2A 194044 Saint Petersburg, Russia Phone +7 812 327 6477 Fax +7 812 327 6478 ru@HARTING.com www.HARTING.ru</p>
	<p>Kirghizia see Russia</p>	<p>Netherlands HARTING B.V. Larenweg 44 NL-5234 KA ,s-Hertogenbosch Postbus 3526 NL-5203 DM ,s-Hertogenbosch Phone +31 736 410 404 Fax +31 736 440 699 nl@HARTING.com www.HARTINGbv.nl</p>	
		<p>New Zealand see Australia</p>	

**Saudi Arabia**

see United Arab Emirates

Serbia

see Austria

Singapore

HARTING Singapore Pte Ltd.
25 International Business Park
#04-108 German Centre
Singapore 609916
Phone +65 6225 5285
Fax +65 6225 9947
sg@HARTING.com
www.HARTING.sg

Slovakia

HARTING s.r.o.
Sales office Slovakia
J. Simora 5, SK – 940 52 Nové Zámky
Phone +421 356-493 993
Fax +421 356-402 114
sk@HARTING.com
www.HARTING.sk

Slovenia

see Austria

South Africa

HARTING South Africa (Pty) Ltd
Ground Floor, Twickenham Building
PO Box 67302
Johannesburg (Bryanston)
2021, South Africa
Phone +27 (0) 11 575 0017
Fax +27 (0) 11 576 6000
za@HARTING.com
www.HARTING.co.za

Spain

HARTING Iberia S.A.
C\Viriato, 47 8°, Edificio Numancia 1
E-08014 Barcelona
Phone +34 93 363 84 75
Fax +34 93 419 95 85
es@HARTING.com
www.HARTING.es

Sweden

HARTING AB
Gustavslundsvägen 141 B 4tr
S-167 51 Bromma
Phone +46 8 445 7171
Fax +46 8 445 7170
se@HARTING.com
www.HARTING.se

Switzerland

HARTING AG
Industriestrasse 26
CH-8604 Volketswil
Phone +41 44 908 20 60
Fax +41 44 908 20 69
ch@HARTING.com
www.HARTING.ch

Syria

see United Arab Emirates

Taiwan

HARTING Taiwan Ltd.
Room 1, 5/F
495 GuangFu South Road
RC-110 Taipei, Taiwan
Phone +886 2 2758 6177
Fax +886 2 2758 7177
tw@HARTING.com
www.HARTING.com.tw

Tajikistan

see Russia

Thailand

see Malaysia

Turkey

HARTING TURKEI Elektronik Ltd. Şti.
Barbaros Mah. Dereboyu Cad. Fesleğen Sok.
Uphill Towers, A-1b Kat:8 D:45
34746 Ataşehir, İstanbul
Phone +90 216 688 81 00
Fax +90 216 688 81 01
tr@HARTING.com
www.HARTING.com.tr

Turkmenistan

see Russia

Ukraine

see Poland

United Arab Emirates

HARTING Middle East FZ-LLC
Knowledge Village, Block 2A, Office F72
P.O. Box 454372, Dubai
United Arab Emirates
Phone +971 4 453 9737
Fax +971 4 439 0339
uae@HARTING.com
www.HARTING.ae

USA

HARTING Inc. of North America
1370 Bowes Road
USA-Elgin, Illinois 60123
Phone +1 (877) 741-1500 (toll free)
Fax +1 (866) 278-0307 (Inside Sales)
us@HARTING.com
www.HARTING-USA.com

Uzbekistan

see Russia

Vietnam

see Singapore

Distributors – worldwide



Digi-Key Corporation:
www.digikey.com

Farnell:
www.farnell.com

FUTURE Electronics:
www.futureelectronics.com

Mouser Electronics:
www.mouser.com

RS Components:
www.rs-components.com

Other countries & general contact



HARTING Electric GmbH & Co. KG
P.O. Box 1473, D-32328 Espelkamp
Phone +49 5772 47-97100
Fax +49 5772 47-495
electric@HARTING.com
www.HARTING.com

HARTING Electronics GmbH
P.O. Box 1433
32328 Espelkamp - Germany
Phone +49 5772/47-97200
Fax +49 5772/47-777
electronics@HARTING.com
www.HARTING.com



Pushing Performance

HARTING, Inc. of North America
1370 Bowes Road
Elgin, IL 60123 USA
Phone +1 (847) 741-1500
info@HARTING.com
www.HARTING-usa.com