



## HARTING Han-Quick Lock<sup>®</sup> Termination

# 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 37 subsidiary companies and worldwide distributors employing a total of more than 3.500 staff.



P HARTING Representatives



#### 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.

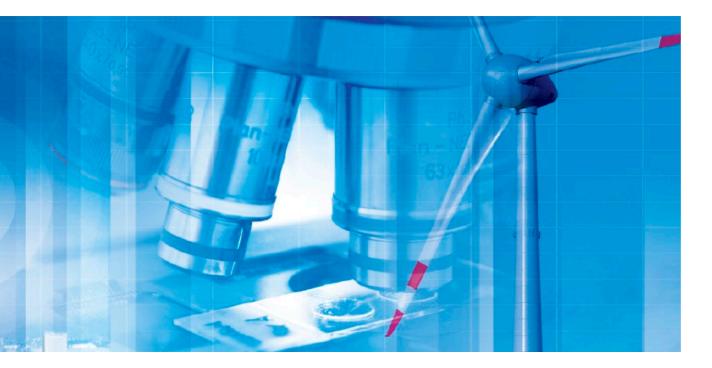
## Opting for HARTING opens up an innovative, complex world of concepts and ideas.

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 inhouse 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.

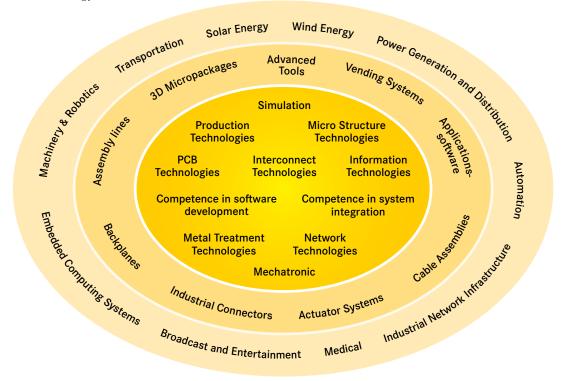
HARTING solutions extend across technology boundaries. Drawing on the comprehensive resources of the group's technology pool, HARTING devises practical solutions for its customers. Whether this involves industrial networks for manufacturing automation, or hybrid interface solutions for wireless telecommunication 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.



### **Field of application**

HARTING Industrial Connectors are applicable in a wide variety of electronic and electrical applications. The degree of protection of all hoods and housings is in accordance with International Standard IEC 60 529, EN 60 529.

• Power Utilities

Chemical Plants

- Industrial Instrumentation
- Robotics
- Conveyor Equipment
  Cabinet builders
- Machine Tool Controls and many more.
- Injection Moulding



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

#### It is the user's responsibility to check whether the components illustrated in this catalogue comply with diffe-

General information:

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

rent regulations from those stated in special fields of

application which we are unable to foresee.

No part of this catalogue may be reproduced in any form (print, photocopy, microfilm or any other process) or processed, duplicated or distributed by means of electronic systems without the prior written consent of HARTING Electric GmbH & Co. KG, Espelkamp. We are bound by the German version only.

### **Specifications:**

DIN EN 60 664-1 Table concerning clearance and creepage distances

DIN EN 61 984 Connectors and plug devices

#### Note:

Connectors should not be coupled and decoupled under electrical load. Connectors of the same or different series being mounted side by side may be protected against incorrect mating by the use of coding options.

© HARTING Electric GmbH & Co. KG, Espelkamp – All rights reserved, including those of the translation.

Han-Quick Lock®
-----------------



Page

## Contents

Description of the Han-Quick Lock <sup>®</sup> system	8
Technical characteristics Han-Quick Lock <sup>®</sup>	12
Han® 3 A Quick Lock	14
Han® 4 A Quick Lock	16
Han® Q 4/2 Axial screw with Quick Lock	18
Han® Q 5/0 Quick Lock	20
Han® Q 8/0 Quick Lock	
Han® Q 12/0 Quick Lock	
Han® 3 PushPull Power 4/0 Quick Lock	
Han <sup>®</sup> 7 D Quick Lock	
Han <sup>®</sup> 8 D Quick Lock	30
Han DD <sup>®</sup> Quick Lock module	32
Han <sup>®</sup> EE Quick Lock module	34
Han-Yellock® module Quick Lock	



## Description of the Han-Quick Lock® system

## 1. Precise technique, so simple as Han-Quick Lock®

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

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

### 2. Complete build-up

The Han-Quick Lock® termination consists of three individual components:



## Suitable cable types

The termination technology allows to use extra fine wires according to VDE 0295, class 5

The following wires are not suitable:

solid wires



stranded wires



twisted pair wires



8

## Description of the Han-Quick Lock® system

3. Fast, simple and compact!

## 3.1 Assembly

1. Step:

Removing cable sheath and wire stripping (10 mm). Do not twist conductors..



### 3. Step:

Push in the active termination element with a screwdriver until it comes to a stop.



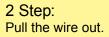
5. Step: Tensile test - Check, whether the wire is in the contact chamber firmly enough..



## 3.2 Disassembly

### 1 Step:

Insert a screwdriver into the side slot of the active termination element at an angle and slide this out



2. Step: Insert wire into the Han-Quick Lock<sup>®</sup> contact chamber.



### 4. Step: Visual inspection - Check if the wire is deep enough in the contact chamber.











## Han-Quick Lock®

## Description of the Han-Quick Lock® system

### 4.0 Active termination element

X-ray of the new Han-Quick Lock<sup>®</sup> connection showing the method of termination.

Photos showing the combination of wire, cone and spring.



### 5.0 Advantages of Han-Quick Lock®

Han-Quick Lock<sup>®</sup> is a new generation of connection technology. This HARTING patent technique offers a number of advantages which are explained more precisely on the following pages.

The special features of this connection technology are:

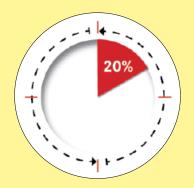
- 1. Time saving
- 2. High vibration safety
- 3. High wire pull out forces
- 4. Low contact resistance





## 5.1 Time saving

With use of Han-Quick Lock<sup>®</sup> a time saving of more than 20% is achieved against a traditional screw connection technique.





## Description of the Han-Quick Lock® system

## 5.2 Vibration safety

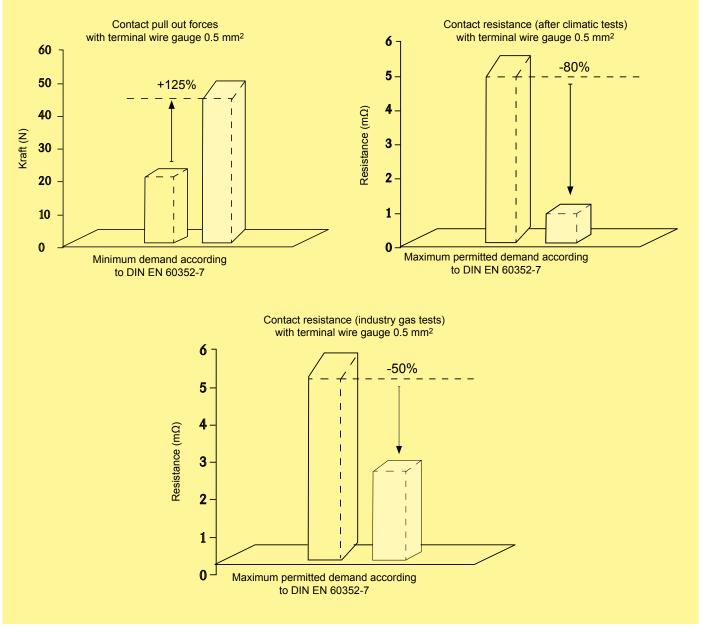
The wires terminated with Han-Quick Lock<sup>®</sup> fulfil the high requirements (shock and vibration test according to DIN EN 61373) from the transportation market.

## 5.3 Contact pull out forces

The required minimum demands according to DIN EN 60352-7 are greatly exceeded.

## 5.4 Contact resistance

Contact resistance Han-Quick Lock<sup>®</sup> termination achieves considerably lower figures than the permitted values after climate and gas tests according to DIN EN 60352-7.





- Fast, simple and robust termination technique
- Field assemly without a spacial tool
- Compatible with many approved Han<sup>®</sup> insert connectors
- Combines high contact density similar to crimp termination with the simple connection like a cage clamp terminal

## **Technical characteristics**

Material: Isolation body: Active termination element: Quick-Lock spring: Contakt:

Blue slide:

Black slide:

Stripping length: Insulating resistance: Flammability : Mech. working life: Termination tool: Polycarbonate Polycarbonate Stailless steel Copper alloy

Wire gauge 0.5 ... 2.5 mm<sup>2</sup> AWG 20 ... 14

Wire gauge 0.25 ... 1.5 mm<sup>2</sup> AWG 23 ... 16

10 mm > 10<sup>10</sup> Ohm according to UL 94 V 0 ≥ 500 mating cycles Screwdriver 0.4 x 2.5 mm bzw. 0.5 x 3.0 mm









Han® Q 5/0 Quick Lock



Han<sup>®</sup> Q 8/0 Quick Lock







Han<sup>®</sup> 7 D Quick Lock









Further components you can find in our HARTING Industrial Connectors Han® catalogue



## Features

- Extended colour coded termination ranges
- Han-Quick Lock<sup>®</sup> quick termination technology
- Field assembly without special tool
- Compatible with standard Han<sup>®</sup> 3 A inserts
- Reduced assembly times
- · Fully compatible with the metal and plastic housings of the Han® 3 A series

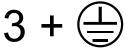
## Technical characteristics

Degree of protection	IP 65 / IP 67
Number of contacts	3 + PE
Electrical data according to	
DIN EN 61 984	10 A 230/400 V 4 kV 3
Working current	10 A
Working voltage conductor-ground	230 V
Working voltage conductor-conductor	400 V
Rated impulse voltage	4 kV
Pollution degree	3
Termination	Han-Quick Lock®
<u>blue slide</u>	
Terminal wire gauge	0.5 2.5 mm <sup>2</sup>
	(AWG 20 - 14)
max. Insulation diameter	3.6 mm
black slide	
Terminal wire gauge	0.25 1.5 mm <sup>2</sup>
	(AWG 23 - 16)
max. Insulation diameter	3.0 mm
Insulation resistance	≥ 10 <sup>10</sup> Ohm
Material	Polycarbonate
Flammability according to UL 94	V 0
Mechanical working life	≥ 500 mating cycles

## Han 3 A<sup>®</sup> Quick Lock



Number of contacts





Identification	Part r Male insert (M)	umber Female insert (F)	Drawing	Dimensions in mm
Quick Lock terminationImage: State of the state o	09 20 003 2633	09 20 003 2733		37, 5
0.25 1.5 mm²	09 20 003 2634	09 20 003 2734	Contact arrangen	nent view from termination side



- Extended colour coded termination ranges
- Han-Quick Lock<sup>®</sup> quick termination technology
- Field assembly without special tool
- Compatible with standard Han® 4 A inserts
- Reduced assembly times
- Fully compatible with the metal and plastic housings of the Han<sup>®</sup> 3 A series

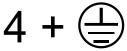
## Technical characteristics

Degree of protection	IP 65 / IP 67
Number of contacts	4 + PE
Electrical data according to	4 ' I L
DIN FN 61 984	10 A 230 / 400 V 4 kV 3
2	10 A 2307400 V 4 KV 3
Working current	230 V
Working voltage conductor-ground	
Working voltage conductor-conductor	400 V
Rated impulse voltage	4 kV
Pollution degree	3
Pollution degree also	0 A 320 / 500 V 4 kV 2
Termination	Han-Quick Lock®
<u>blue slide</u>	
Terminal wire gauge	0.5 2.5 mm <sup>2</sup>
	(AWG 20 - 14)
max. Insulation diameter	3.6 mm
black slide	
Terminal wire gauge	0.25 1.5 mm <sup>2</sup>
	(AWG 23 - 16)
max. Insulation diameter	3.0 mm
Insulation resistance	≥ 10 <sup>10</sup> Ohm
Material	Polycarbonate
Flammability according to UL 94	V 0
Mechanical working life	≥ 500 mating cycles
-	

## Han 4 A® Quick Lock



Number of contacts





Identification	Part n Male insert (M)	umber Female insert (F)	Drawing	Dimensions in mm
Quick Lock termination				-
0.5 2.5 mm²	09 20 004 2633	09 20 004 2733		
0.25 1.5 mm²	09 20 004 2634	09 20 004 2734	Contact arrangement view fr	om termination side



- · Field assembly without special tools
- Compatible with Han<sup>®</sup> Q 4/2 standard inserts with crimp terminations
- Reduced wiring times
- Inserts suitable for standard plastic and metal hoods/housings with additional PE contact from the Han-Compact<sup>®</sup> size
- Space-saving and compact design
- With or without Han-Quick Lock<sup>®</sup> signal contacts as an option

### Attention

- For termination please use only hexagonal screw driver with wrench size SW 2.
- If PE contact is not used: Please screw the PE contact maximal on both sides clockwise with a hexagonal screwdriver, wrench size SW 2.

## **Technical characteristics**

Degree of protection Number of contacts Electrical data acc. to DIN EN 61 984 IP 65 / IP 67 4/2 + PE

Power area	4
Rated current	4
Rated voltage conductor - ground	4
Rated voltage conductor - conductor	6
Rated impulse voltage	6
Pollution degree	3
Termination Powerarea	Α

Signal area Rated current Rated voltage Rated impulse voltage Pollution degree Termination Signalarea

Terminal wire gauge

max. Insulation diameter

40 A 400/690 V 6 kV 3 40 A 400 V 690 V 6 kV 3 Axial scew terminal

10 A 250 V 4 kV 3 10 A 250 V 4 kV 3 Han-Quick Lock®

### <u>black slide</u>

0.25 ... 1.5 mm<sup>2</sup> (AWG 23 - 16) 3.0 mm

Insulation resistance Material insert Flammability acc. to UL 94 Mechanical working life ≥ 10<sup>10</sup> Ω Polycarbonate V 0 ≥ 500 mating cycles

## Han® Q 4/2 Axial screw



Number of contacts



Inserts with axial screw termination Signal contacts with Han-Quick Lock<sup>®</sup> termination

Identification	Part r Male insert (M)	umber Female insert (F)	Drawing	Dimensions in mm
Han® Q 4/2 Quick Lock	09 12 006 2663	09 12 006 2763	M F F F	22, 4 - 1, 4 - 22, 4 - 1,
			contact arran	gement view termination side



- Extended colour coded termination ranges
- Han-Quick Lock<sup>®</sup> quick termination technology
- Field assembly without special tool
- Compatible with Han® Q 5/0 inserts
- Reduced assembly times
- Fully compatible with the metal and plastic housings of the Han<sup>®</sup> 3 A series

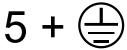
## Technical characteristics

	Denne of metaotics	IP 65 / IP 67
	Degree of protection	
	Number of contacts	5 + PE
	Electrical data according to	
	DIN EN 61 984	16 A 230/400 V 4 kV 3
	Working current	16 A
	Working voltage conductor-ground	230 V
	Working voltage conductor-conductor	400 V
	Rated impulse voltage	4 kV
	Pollution degree	3
	Pollution degree 2 also	16 A 320/500 V 4 kV 2
	Termination	Han-Quick Lock®
bl	ue slide	
	Terminal wire gauge	0.5 2.5 mm <sup>2</sup>
		(AWG 20 - 14)
	max. Insulation diameter	3.6 mm
bl	ack slide	
	Terminal wire gauge	0.25 1.5 mm <sup>2</sup>
	0 0	(AWG 23 - 16)
	max. Insulation diameter	3.0 mm
	Insulation resistance	≥ 10 <sup>10</sup> Ohm
	Material	Polycarbonate
	Flammability according to UL 94	V 0
	Mechanical working life	≥ 500 mating cycles
	moonamoar working inc	

## Han® Q 5/0 Quick Lock



Number of contacts





Identification	Part n Male insert (M)	umber Female insert (F)	Drawing	Dimensions in mm
IdentificationQuick Lock terminationImage: Comparison of the second s	Part n Male insert (M)	umber Female insert (F)		Image: Dimensions in mmImage: Dimensions in mmImage: Dimensions in minimumImage: Dimensio



- Extended colour coded termination ranges
- Han-Quick Lock<sup>®</sup> quick termination technology
- Field assembly without special tool
- Compatible with Han® Q 8/0 inserts
- Reduced assembly times
- Inserts suitable for standard plastic and metal hoods/housings with additional PE contact from the Han-Compact<sup>®</sup> size
- Space-saving and compact design
- · Leading protective ground contact

## **Technical characteristics**

Number of contacts	8 + PE
Electrical data according to	
DIN EN 61 984	16 A 500 V 6 kV 3
Working current	16 A
Working voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Pollution degree 2 also	16 A 400/690 V 6 kV 2
Termination	Han-Quick Lock®
Termination	
blue slide	
Terminal wire gauge	0.5 2.5 mm <sup>2</sup>
	(AWG 20 - 14)
max. Insulation diameter	3.6 mm
black slide	
Terminal wire gauge	$0.25 \dots 1.5 \text{ mm}^2$
Terminal wire gauge	(AWG 23 - 16)
max. Insulation diameter	3.0 mm
	3.0 11111
Insulation resistance	≥ 10 <sup>10</sup> Ohm
Material	Polycarbonate

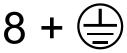
Flammability according to UL 94 Mechanical working life

V 0 ≥ 500 mating cycles

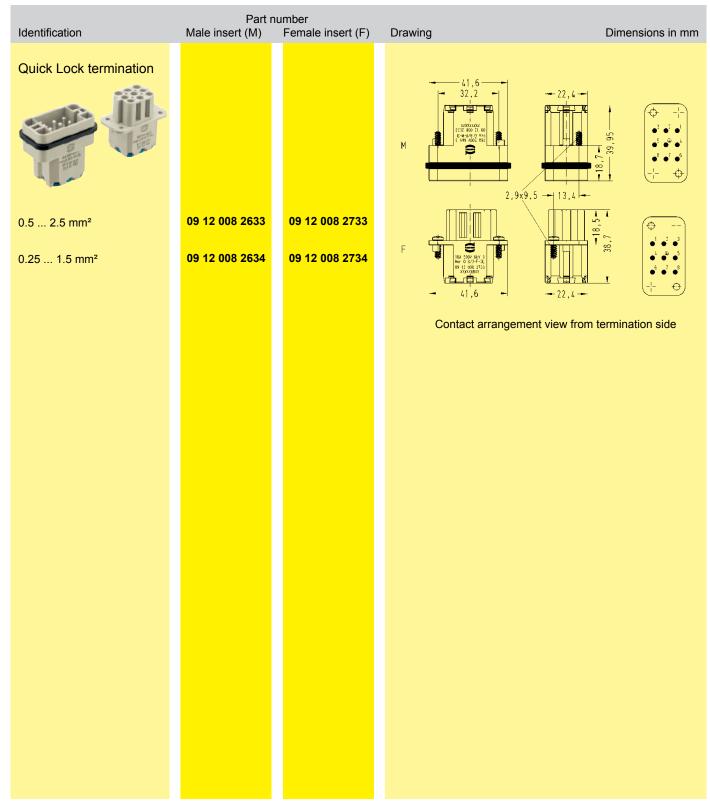
## Han® Q 8/0 Quick Lock



Number of contacts









b

b

## Features

- Extended colour coded termination ranges
- PE-contact with Han-Quick Lock<sup>®</sup> quick termination technology
- 16x coding possibilities without loss of a contact place
- Fully compatible with the metal and plastic housings of the Han<sup>®</sup> 3 A series
- 12 contact chambers for the contacts of the series Han  $\mathsf{D}^{\texttt{®}}$  with crimp termination

## Technical characteristics

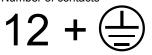
Number of contacts	12 + PE
Electrical data according to	
DIN EN 61 984	10 A 400 V 6 kV 3
Working current	10 A
Working voltage	400 V
Rated impulse voltage	6 kV
Pollution degree	3
Pollution degree 2 also	10 A 400 / 690 V 6 kV 2
Termination PE contact	Han-Quick Lock®
<u>olue slide</u>	
Terminal wire gauge	0.5 2.5 mm <sup>2</sup>
	(AWG 20 - 14)
max. Insulation diameter	3.6 mm
<u>olack slide</u>	
Terminal wire gauge	0.25 1.5 mm <sup>2</sup>
	(AWG 23 - 16)
max. Insulation diameter	3.0 mm
Insulation resistance	≥ 10 <sup>10</sup> Ohm
Material	Polycarbonate
Flammability according to UL 94	V 0
Mechanical working life	≥ 500 mating cycles

## Han® Q 12/0 Quick Lock



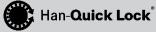
HARTIN

Number of contacts





Identification	Part n Male insert (M)	umber Female insert (F)	Drawing	Dimensions in mm
Quick Lock termination				37,8 32,8 32,8 39,85 35,45
0.5 2.5 mm²	09 12 012 3001	09 12 012 3101		
0.25 1.5 mm <sup>2</sup>	09 12 012 3004	09 12 012 3104	Contact arrangemer	nt view from termination side



- HARTING PushPull Technologie
- Compact, space-saving design
- Finger protection
- 4 times coding without contact loss
- Panel feed-through: male
- · Cable side: female

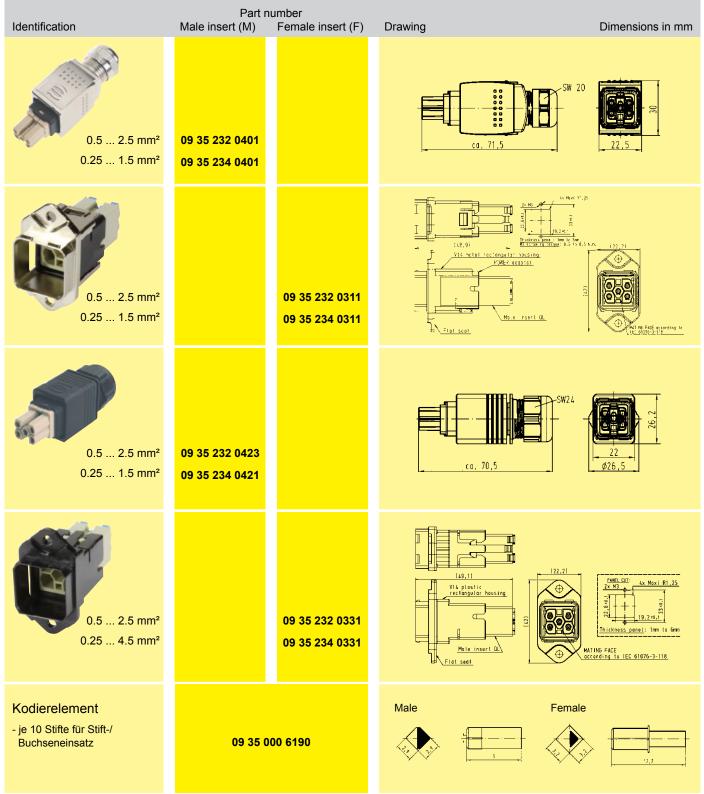
## **Technical characteristics**

Locking device	PushPull-Technology acc. to IEC 61 076-3-118
Degree of protection	IP 65 / IP 67
Number of contacts	4 + PE
Electrical data according to	
DIN EN 61 984	16 A 690 V 4 kV 3
Cable diameter	
metal version	4 11 mm
plastic version	913 mm (0.5 2.5 mm²)
	6.5 9.5 mm (0.25 1.5 mm²)
Termination	Han-Quick Lock®
Terrinidation	
Flammability acc. to UL 94	V 0
Mating cycles	min. 500
Temperature range	-40 °C +170 °C
blue slide	
Terminal wire gauge	0.5 2.5 mm <sup>2</sup>
	(AWG 20 - 14)
max. Insulation diameter	3.6 mm
black slide	
Terminal wire gauge	0.25 1.5 mm <sup>2</sup>
0.0	(AWG 23 - 16)
max. Insulation diameter	3.0 mm
	0.0 mm
Housing material	Zinc diecast (nickel plated),

Plastic, black

Han-**Quick Lock**®

Number of contacts





- Colour coded termination ranges
- Han-Quick Lock<sup>®</sup> quick termination technology
- · Field assembly without special tools
- Compatible with Han<sup>®</sup> 7 D standard inserts with crimp terminals
- · Reduced wiring times
- Insert suitable for plastic hoods and housings using the Han<sup>®</sup> 3 A size
- Space-saving and compact design
- · Leading protective ground contact

## **Technical characteristics**

Number of contacts Electrical data acc. to EN 61 984 Rated current Rated voltage Rated impulse voltage Pollution degree Pollution degree 2 also Termination

10 A 250 V 4 kV 3 10 A 250 V 4 kV 3 10A 230/400 V 4 kV 2 Han-Quick Lock®

7 + PE

### <u>black slide</u>

Terminal wire gauge

max. Insulation diameter

Insulation resistance Material Limiting temperatures Flammability acc. to UL 94 Mechanical working life ≥ 10<sup>10</sup> Ω polycarbonate -40 °C ... +125 °C V 0

0.25 ... 1.5 mm<sup>2</sup>

(AWG 23 - 16)

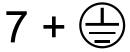
3.0 mm

≥ 500 mating cycles

## Han 7 D<sup>®</sup> Quick Lock



Number of contacts





Identification	Part Male insert (M)	number Female insert (F)	Drawing	Dimensions in mm
Identification         Quick Lock termination         Image: Comparison of the second s	Part Male insert (M)	09 21 007 2732	M       Image: Contact arrangement view	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$



- Colour coded termination ranges
- Han-Quick Lock<sup>®</sup> quick termination technology
- Field assembly without special tools
- Compatible with Han<sup>®</sup> 8 D standard inserts with crimp terminals
- Reduced wiring times
- Insert suitable for metal hoods and housings using the Han<sup>®</sup> 3 A size
- Space-saving and compact design
- · Leading protective ground contact

## **Technical characteristics**

Number of contacts Electrical data acc. to EN 61 984 Rated current Rated voltage Rated impulse voltage Pollution degree Termination

Terminal wire gauge

Insulation resistance

Limiting temperatures Flammability acc. to UL 94

Mechanical working life

max. Insulation diameter

black slide

Material

10 A ~50 V/–120 V 4 kV 3 10 A ~50 V / –120 V 4 kV 3 Han-Quick Lock®

0.25 ... 1.5 mm<sup>2</sup> (AWG 23 - 16) 3.0 mm

8

≥ 10<sup>10</sup> Ω polycarbonate -40 °C ... +125 °C V 0 ≥ 500 mating cycles

## Han 8 D<sup>®</sup> Quick Lock



Number of contacts

8



Identification	Part n Male insert (M)	umber Female insert (F)	Drawing	Dimensions in mm
Identification         Quick Lock termination         Image: Comparison of the second s	Part n Male insert (M)	09 36 008 2732	Image: Drawing         Image:	37,8 32,8 39,85 35,45



- Colour coded termination ranges
- Innovative Han-Quick Lock<sup>®</sup> termination technology
- · Field assembly without special tools
- Mating compatible with standard Han<sup>®</sup> DD module with crimp terminal
- Reduced wiring times

## Technical characteristics

Number of contacts Electrical data acc. to EN 61 984 Rated current Rated voltage Rated impulse voltage Pollution degree Material Surface - hard-silver plated Contact resistance Termination

black slide Terminal wire gauge

max. Insulation diameter

Insulation resistance Material Limiting temperatures Flammability acc. to UL 94 Mechanical working life 10 A 250 V 4 kV 3 10 A 250 V 4 kV 3 copper alloy

3 µm Ag ≤ 3 mΩ Han-Quick Lock®

12

0.25 ... 1.5 mm<sup>2</sup> (AWG 23 - 16) 3.0 mm

≥ 10<sup>10</sup> Ω polycarbonate -40 °C ... +125 °C V 0 ≥ 500 mating cycles

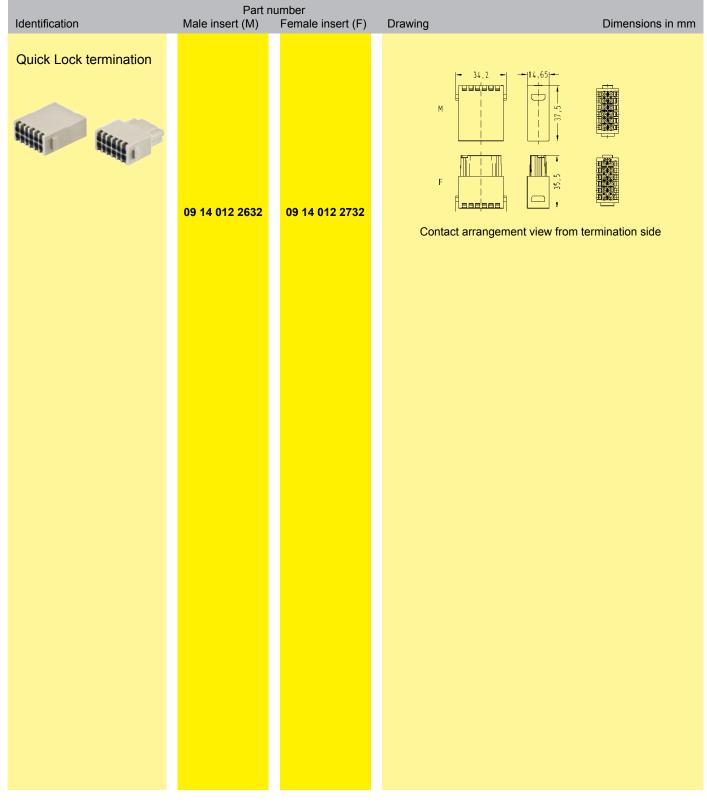
## Han DD<sup>®</sup> Quick Lock module



Number of contacts

12







- Extended colour coded termination ranges
- Innivative Han-Quick Lock® termination technology
- Field assembly without special tools
- Compatible to Han<sup>®</sup> EE module with crimp terminal
- Reduced wiring times

## Technical characteristics

Number of contacts	8
Electrical data	
acc. to EN 61 984	16 A 400 V 6 kV 3
Rated current	16 A
Rated voltage	400 V
Rated impulse voltage	6 kV
Pollution degree	3
Material	copper alloy
Surface	
<ul> <li>hard-silver plated</li> </ul>	3 µm Ag
Contact resistance	≤ 1 mΩ
Termination	Han-Quick Lock®
<u>blue slide</u>	
Terminal wire gauge	0.5 2.5 mm <sup>2</sup>
	(AWG 20 - 14)
max. Insulation diameter	3.6 mm
black slide	
Terminal wire gauge	0.25 1.5 mm <sup>2</sup>
	(AWG 23 - 16)
max Insulation diameter	3.0 mm
	0.0 mm
Insulation resistance	≥ 10 <sup>10</sup> Ω
Material	polycarbonate
Limiting temperatures	-40 °C +125 °C
Flammability acc. to UL 94	V 0
Mechanical working life	≥ 500 mating cycles

## Han<sup>®</sup> EE Quick Lock module



Number of contacts

8



Identification	Part n Male insert (M)	umber Female insert (F)	Drawing	Dimensions in mm
Quick Lock termination			M $F$ $F$ $M$ $H$	
0.5 2.5 mm²	09 14 008 2633	09 14 008 2733		
0.25 1.5 mm²	09 14 008 2634	09 14 008 2734	Contact arrangement view from te	ermination side
			S	tock items in bold type

- Extended colour coded termination ranges
- Snap-in assembly from mating side and from termination side
- Bus bar within bridge attachements
- Finger safe design
- Fast and tool-less assembly
- Compatible to Han-Yellock® crimp modules

## **Technical Characteristics**

Number of contacts	5
Electrical data	
acc. to DIN EN 61 984	20 A 500 V 6 kV 3
Rated current	20 A
Rated voltage	500 V
Rated impulse voltage	6 kV
Pollution degree	3
Pollution degree 2 also	20 A 690 V 8 kV 2
Material	copper alloy
Surface	
- hart-silver plated	3 µm Ag
Contact resistance	≤ 2 mΩ
Termination	Han-Quick Lock®
klus slide	
blue slide	
Terminal wire gauge	0.5 2.5 mm <sup>2</sup>
	(AWG 20 - 14)
max. Insulation diameter	3.6 mm
<u>black slide</u>	
Terminal wire gauge	0.25 1.5 mm <sup>2</sup>
	(AWG 23 - 16)
max. Insulation diameter	3.0 mm
Insulation resistance	≥ 10 <sup>10</sup> Ω
Material	polycarbonate
Limiting temperatures	-40 °C +125 °C
Flammability acc. to UL 94	V 0
Mechanical working life	≥ 500 mating cycles

Number of contacts

5



Identification	Part-Number	Drawing	Dimensions in mm
Han-Yellock <sup>®</sup> module with Quick-Lock termination			
0.5 2.5 mm²	<mark>11 05 105 2633</mark>	40	
0.25 1.5 mm²	11 05 105 2634		
Please find the whole product portfolio of the Ha			

HARTIN

## Notes

38

### You can find the **HARTING eCatalogue** at **www.HARTING.com**.

	ursia.						
					Al categories	Search term	<ul> <li>Your shopping cart</li> </ul>
MyHARTING	Downloads / Catalogue ord						
oduct informatio	n - HARKIS 2.0						
Ö Ø	P		K	000			
Industrial Connectors Han@	System cables and cable assemblies Han@	Ethernet Switches and RFID	Tools Han®	Accessories Han@	Board-te-Board Connectors incl. Tools, Accessories		Eradust configurator
Subcategories	Subcategories	Subcategories	Subcategories	Subcategories	Subcategories		C. Com
Product list (2191)	Product list (71)	Product list (98)	Product list (96)	Product list (414)	Product list (2067)		
-							
O Connectors Incl. Tools, Accessories <u>Subcategories</u> Product list (4405)							
Subcategories Product list (4405)				Recently searched			
Accessories Subcategories Product list (4405)	product detail pages.			Recently searched There haven't been done an	y searches yet.		

The **HARTING eCatalogue** is an electronic catalogue with a product configurator. Here you can choose a connector according to your requirements. Afterwards you are able to send your inquiry directly to a HARTING sales partner. The drawings to every single part are available in PDF format. The parts are downloadable in 2D format (DXF) and 3D format (IGES, STEP). The 3D models can be viewed with a VRML-viewer.

### Product configurator

HAITING Pushing Performance					
		All categories	Search term	Your shapping cart	
ducts MyHARTING Downloads / Catalogue order					
n® Connector Sets			Reset selection	> Show result list (0) 1	
sert					
ase make your choice for the following attributes. You can use the	buttons 'Prev' and 'Next' to switch between the attributes.				
tributes - Insert	Reset Berles - Make your choice.				
Gender Nale contacta	C Han Adb	C Hando EEE		-	
Series	C Han-Brid® Cu	C Handb Hs8			
Number of contacts	C Han-Brid® Firewire	C Han® Hy E			
Size of hood/housing	🛱 Han-Brid® Quintax 3 A	C Handb Hy ES			
Electrical data	C Han-Brid@ R345 C	C Han-Modular®			
Electr: data for signal area	C Han-Brid® US8	C Hands 3 A SC Module		0.0	
Termination	C Han-Com®	C Hando Q		1 HAR	
Pin / Screw type for housing	C Han DB, Han DB AV	C Handb Q Data R145		1433	
	Han 0D/0	C R15		4	
	C Han Edb, Han 🛛 ES/ESS, Han Edb AV, Hando ES AV	Ć R.23		Hybrid Field Bus Connector fo shielded bristed pai/()+ 4	
	C HanØ EE	C Staf@		electrical contacts 10A, + option for PE/\Electrical data: 10 A 50 V 0.9 kV 2	
	Draw > Nacct >			20.4 30 9 0,4 69 2	
PT 1224 / LINE TO PRICA TRUE	Home   Contact   Privacy Policy   Terms of Use   Sales and Del-	ery Conditions   Imprint		Follow us on	
	Harting Deutschland GmbH & Gs.   Simeonsteine 1   32427 Mind				
	HARTDIG support: +49 571 0396-0   IDE-mail address: (For quartian Website support: +49 5772 47-9399   IDE-mail address: (Por-				

## **Smart Network Infrastructure**



### INTELLIGENT NETWORK SOLUTIONS

With its product series Ha-VIS, HARTING offers a consistent range of Ethernet network components and cabling products, which from the communication platform of convergent

automation IT networks. Under Ha-VIS HARTING offers fully integrated RFID solutions.

## **Installation Technology**



HARTING Industrial Connectors Han\*

### INDUSTRIAL CONNECTORS Han®

This catalogue documents the worldwide standard for industrial connectors. Han® connectors represent the preferential solution in the cable-tocable interconnection of data, signal and power applications operating under the most

demanding conditions and meeting stringent requirements with regard to safe and detachable electrical connections with high degree of protection IP 65 / IP 67. Installations making use of Han<sup>®</sup> connectors impress with their rugged design, convenient handling and modularity of data, signal and power connections. Han<sup>®</sup> connectors represent the worldwide standard in industry, railway technology, as well as in power generation and distribution.

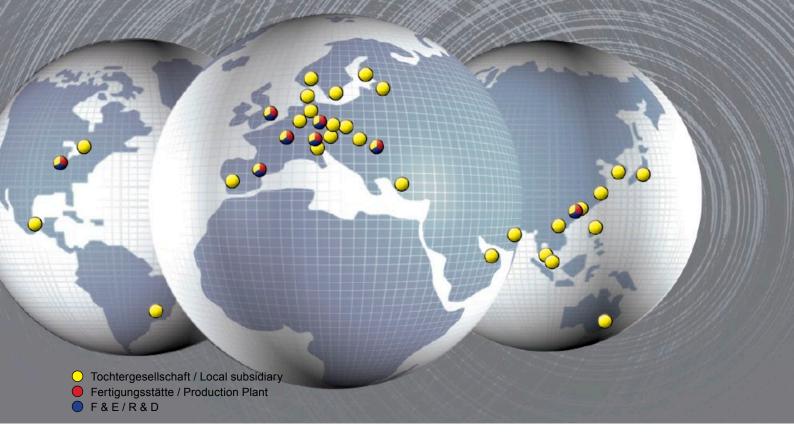
## **Device Connectivity**



### DEVICE CONNECTIVITY

The Device Connectivity catalogue provides a universal, innovative product portfolio of PCB connections and of termination technology. The product range comprises board-toboard and cable-to-board connectors for industrial electronic devices with

degree of protection IP 20 to IP 65 / IP 67. These HARTING solutions offer appropriate device connectivity for a wide range of devices, ranging from sensors to industrial computers and their respective data, signal and power interfaces.



## Sales Network – worldwide

#### Afghanistan

see United Arab Emirates

#### Albania

see Eastern Europe

### 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 Eastern Europe

### 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 Eastern Europe

#### Bahrain see United Arab Emirates

#### 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 Eastern Europe

#### 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 Eastern Europe

#### Canada

HARTING Canada Inc. 8455 Trans-Canada Hwy., Suite 202 St. Laurent, QC, H4S1Z1, Canada Tel. 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 Gateway 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 Eastern Europe

### **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 Veile Phone +45 70 25 00 32 Fax +45 75 80 64 99 dk@HARTING.com www.HARTING.com

## Sales Network - worldwide

#### Eastern Europe

HARTING Eastern Europe GmbH Bamberger Straße 7 D-01187 Dresden Phone +49 351 4361 760 Fax +49 351 436 1770 Eastern.Europe@HARTING.com www.HARTING.com

#### Egypt

see United Arab Emirates

Estonia see Eastern Europe

#### 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

#### 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

#### Germany

HARTING Deutschland GmbH & Co. KG P.O. Box 2451, D-32381 Minden Simeonscarré 1, D-32427 Minden Phone +49 571 8896 0 Fax +49 571 8896 282 de@HARTING.com www.HARTING.de

Georgia see Eastern Europe

#### 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

### 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 **42** www.HARTING.com.hk

#### 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

### 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 http://www.HARTING.in

Indonesia see Malaysia

Iran see United Arab Emirates

Iraq see United Arab Emirates

### 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

### 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

### Japan

HÅRTING 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

Jemen see United Arab Emirates

Jordan see United Arab Emirates

Kazakhstan see Eastern Europe

Kirghizia see Eastern Europe

### 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

Kosovo see Eastern Europe

Kuwait see United Arab Emirates

Latvia see Eastern Europe

Lebanon see United Arab Emirates

Lithuania see Eastern Europe

Macedonia see Eastern Europe

#### 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

Montenegro see Eastern Europe

## 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.HARTINGby.nl

### New Zealand

see Australia

#### Norway

HARTING A/S Østensjøveien 36, N-0667 Oslo Phone +47 22 700 555 Fax +47 22 700 570 no@HARTING.com www.HARTING.no

Oman see United Arab Emirates

Pakistan see United Arab Emirates

Philippines see Malaysia



## Sales Network - worldwide

### 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

### Portugal

HARTING Iberia, S. A. Avda. Josep Tarradellas 20-30 4° 6a E-08029 Barcelona Phone +351 219 673 177 Fax +351 219 678 457 es@HARTING.com www.HARTING.es/pt

#### Qatar

see United Arab Emirates

Republic of Moldova see Eastern Europe

#### 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

#### 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

Saudi Arabia see United Arab Emirates

Serbia

see Eastern Europe

### 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 Eastern Europe

#### 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. Avda. Josep Tarradellas 20-30 4° 6ª E-08029 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 Eastern Europe

## 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 Eastern Europe Ukraine see Eastern Europe

### **United Arab Emirates**

HARTING Middle East FZ-LLC Knowledge Village, Block 2A, Office F72 P.O. Box 454372, Dubai United Arab Emirates Tel. +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 Eastern Europe

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 and general contact



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



### HARTING Technology Group

Marienwerderstr. 3, 32339 Espelkamp – Germany P.O. Box 11 33, 32325 Espelkamp – Germany Phone +49 5772 47-0, Fax +49 5772 47-400 info@HARTING.com www.HARTING.com