



Pushing Performance

# HARTING RJ Industrial<sup>®</sup> 10G



People | Power | Partnership

# HARTING RJ Industrial® 10G

## The next generation of the first field installable RJ45 connector

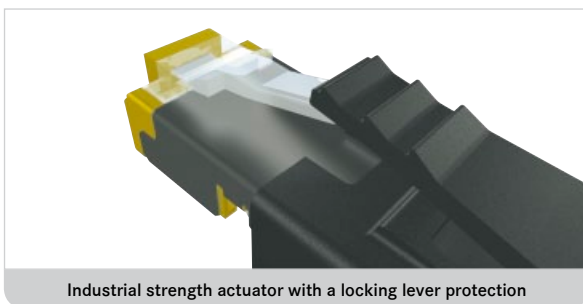
In 2004 under the product name HARTING RJ Industrial® – HARTING launched the RJ45 connector (plug) for Fast Ethernet onto the market and thus set a new benchmark for industrial Ethernet cabling. The innovative connector is equipped with vibration proof HARAX® insulation displacement connector technology and allows the connection of twisted pair industrial Ethernet cables with solid or stranded wires and a wire-section of up to AWG 22.

The next generation of HARTING RJ Industrial® 10G RJ45 connectors now combines the experiences of 100.000-fold application of this global first, without special tools, lockable RJ45 connector with market demands of 1 and 10 Gigabit Ethernet. It is equipped for all commercially 2 or 4 twisted pair Ethernet cables and allows an 8-pole cable connection with solid or stranded wire section of AWG 27 to AWG 22. A newly developed cable clamp ensures a secure fixing in a range from 4.5 – 9 mm.

And so the connector can be attached to almost all cable types used in office and the industry, even the usual solid cables installed in buildings.

For this reason the HARTING RJ Industrial® 10G RJ45 connector can be used in a wide range of cables and consistently fulfills customer demands for simple, safe and rapid cabling. In particular, the captive cable manager, with the clear circuit plan on the connector, enables optimum and timesaving cabling.

The HARTING RJ Industrial® 10G RJ45 connector suits industrial needs, is robust and nonetheless lightly constructed and optimized for use in multi-port sockets. Colour clips for colour coding are optional and if required can be equipped with an RFID chip for saving patch cable-ID and parameters.



Industrial strength actuator with a locking lever protection



Optional colour coding with colour clips



10 Gigabit

Ethernet furiously fast



Light, small and multi-port capable

# HARTING RJ Industrial® 10G

## The universal connector for Automation IT

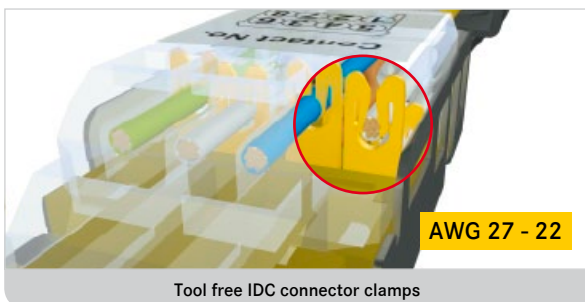
The HARTING RJ Industrial® 10G RJ45 connector with its outstanding product characteristics can be used in office networks as well as in all industrial applications. Through the integration of RJ45 functions contained in all HARTING IP 65/67 series from Han® 3 A to PushPull this innovative connector technology is well suited to rough industrial application as well as for outdoor uses and offers the user universal and secure connector technology in all fields of Automation IT cabling.

The HARTING RJ Industrial® 10G RJ45 connector is the innovative and future proof platform for Fast Ethernet,



1 Gigabit or 10 Gigabit Ethernet: It can be universally applied – from Office IT to industrial automation or also in outdoor applications. HARTING RJ Industrial® 10G – the new standard RJ45 connector for Automation IT.

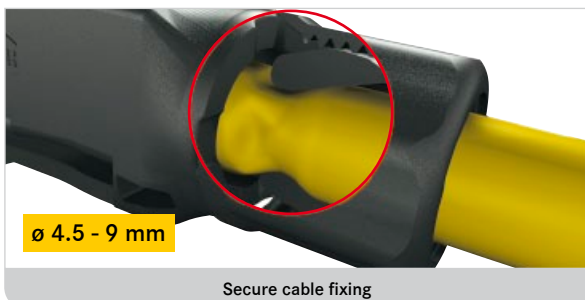
- Double connector friendly for wire sections of AWG 27 / 7 to AWG 22 / 1 and cable diameter from 4.5 to 9 mm for all usual Ethernet cable types in industry and Office IT
- Safe and rapid tool free cabling with captive wire manager
- Cat. 6, transfer class E<sub>A</sub>, suitable for 1 and 10 Gigabit Ethernet
- Small and multi-port capable
- Suitable for industry, robust yet light
- The same installation technology for all connector types from IP 20 to PushPull



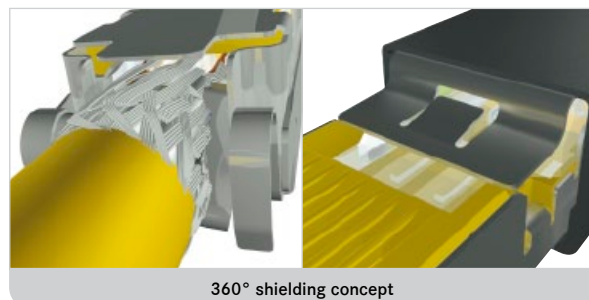
Tool free IDC connector clamps



Tool free cabling with captive wire manager



Secure cable fixing



360° shielding concept

## Container principle for universal use

**HARTING** offers the most comprehensive product range for IP 65/67 protected Ethernet connectors on the market. The outstanding characteristic of all connector types is the universal connector technology and the use of the unchanging RJ45 function container in all series. The big advantage for the user: The basic steps of the connector cabling is always identical, regardless whether it is installed in the office environment IP 20 connector or the robust industrial IP 65/67 connector. Thereby, additional training effort is not required, it saves time and cost. For all Automation IT applications a universal, safe and rapid connector technology can be implemented with the **HARTING** installation technology.

The **HARTING** range currently consists of the following types:

- **HARTING RJ Industrial® 10G** – Connector for IP 20
- **Han-Max® RJ45 10G** – Connector for IP 65/67 (Variant 1 according to IEC 61076-3-106,

preferred type for EtherNet/IP™ according to ODVA specification)

- **HARTING PushPull RJ45 10G** – Connector for IP 65/67 (Variant 4 according to IEC 61076-3-106, preferred type for industrial construction cabling)
- **Han® 3 A RJ45 10G** – Connector for IP 65/67 (Variant 5 according to IEC 61076-3-106, preferred type for PROFINET)
- **Han® 3 A RJ45 Hybrid 10G** – Connector for IP 65/67 (Variant 5 according to IEC 61076-3-106, preferred type for PROFINET)
- **Han® PushPull RJ45 10G** – Connector for IP 65/67 (Variant 14 according to IEC/PAS 61076-3-117, preferred type for PROFINET and AIDA [Automation Initiative of German Domestic Automobile manufacturers])

Alongside the available range, the integration of this RJ45 function container in further **HARTING** series, such as the Han-Modular® is possible and currently in preparation.



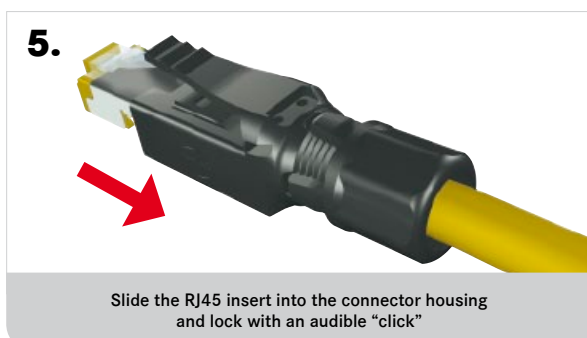
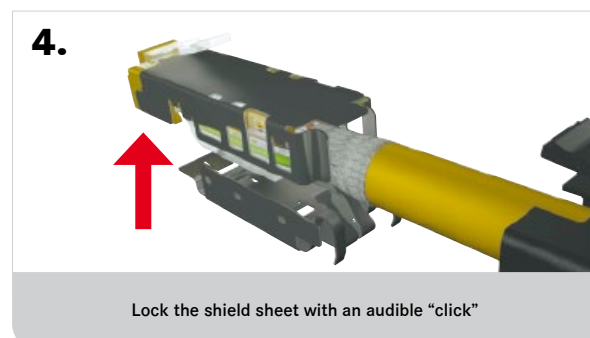
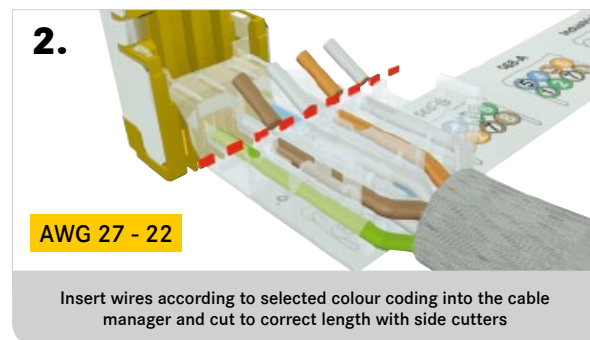
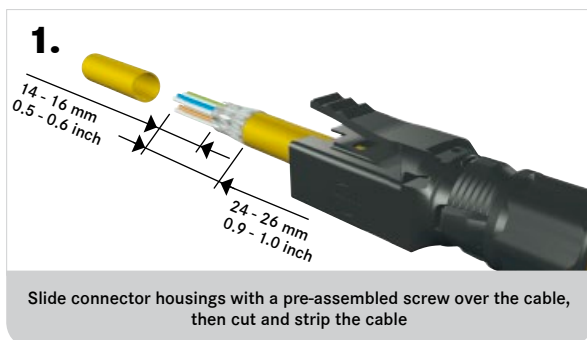
# The cabling

## Simple, safe and fast

Connectors must allow a reliable cable connection with few parts and minimal effort.

With the development of the new **HARTING RJ Industrial® 10G RJ45** connector these customer requirements were paramount. The connector housing with the novel cable clamp is delivered with pre-assembled connecting nut. The RJ45 insert comprises of only two parts. The moveable cable manager mounted on the connector body allows the simple insertion of wires and always guarantees a fault free circuit of the insulation displacement connector. For rapid identification of the correct position of the

coloured individual wires, the cable manager has been furnished with a label containing a circuit plan. This circuit label displays the universally used wire colours according to EIA/TIA-568/A and B and for 4-wire industrial Fast Ethernet applications indicating the relative contact allocation. After wiring the connector a portion of the label remains on the plug thus allowing simple recognition of the relative contact position in the cable manager on re-wiring the plug. All these details permit – in only six steps – a rapid and safe local assembly, whereby a time saving of up to 30 % can be realized.



### HARTING RJ Industrial® 10G connector

- Field installable using IDC-technology
- For solid and stranded wire AWG 27 to AWG 22
- Cat. 6, transfer class E<sub>A</sub>, suitable for 1/10 Gigabit Ethernet
- Temperature range -40 °C to +70 °C
- Degree of protection IP 20
- Cable diameter 4.5 – 9 mm



Identification	Part number
HARTING RJ Industrial® 10G connector	09 45 151 1560

### HARTING RJ Industrial® 10G colour clips

Identification	Colour	Part number
Colour clips for colour coding the HARTING RJ Industrial® 10G connector  If required the colour clips can be equipped with an RFID-chip for automatic patch cable-ID recognition and storage. Each order number equates to a packing unit of 50 pieces.	White	09 45 850 0001
	Grey	09 45 850 0002
	Yellow	09 45 850 0003
	Magenta	09 45 850 0005
	Red	09 45 850 0007
	Blue	09 45 850 0008
	Green	09 45 850 0009
	Brown	09 45 850 0010



### HARTING PushPull RJ45 10G connector

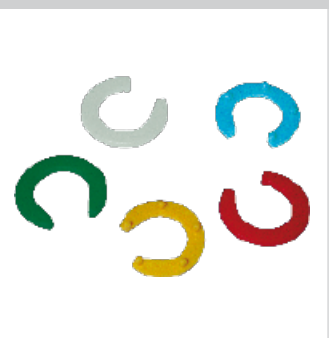
- Field installable using IDC-technology
- For solid and stranded wire AWG 27 to AWG 22
- Cat. 6, transfer class E<sub>A</sub>, suitable for 1/10 Gigabit Ethernet
- Temperature range -40 °C to +70 °C
- Degree of protection IP 65 / IP 67
- Cable diameter 4.9 – 8.6 mm



Identification	Part number
HARTING PushPull RJ45 10G connector, plastic	09 45 145 1560
HARTING PushPull RJ45 10G connector, metal	09 45 195 1560

### HARTING PushPull colour clips

Identification	Colour	Part number
Colour clips for colour coding the HARTING PushPull connectors  Each order number equates to a packing unit of 10 pieces.	White	09 45 840 0011
	Yellow	09 45 840 0013
	Red	09 45 840 0017
	Blue	09 45 840 0018
	Green	09 45 840 0019



## Han® PushPull RJ45 10G connector

- PROFINET standard solution according to the demands of the German automobile industry (AIDA)
- Field installable using IDC-technology
- For solid and stranded wire AWG 27 to AWG 22
- Cat. 6, transfer class E<sub>A</sub>, suitable for 1/10 Gigabit Ethernet
- Temperature range -40 °C to +70 °C
- Degree of protection IP 65 / IP 67
- Cable diameter: Plastic: 6.5 – 9.5 mm  
Metal: 4 – 11 mm



Identification	Part number
Han® PushPull RJ45 10G connector, plastic	09 35 225 042 1
Han® PushPull RJ45 10G connector, metal	09 35 225 040 1

## Han® 3 A RJ45 10G connector

- Field installable using IDC-technology
- For solid and stranded wire AWG 27 to AWG 22
- Cat. 6, transfer class E<sub>A</sub>, suitable for 1/10 Gigabit Ethernet
- Temperature range -40 °C to +70 °C
- Degree of protection IP 65 / IP 67
- Cable diameter 5 – 9 mm



Identification	Part number
Han® 3 A RJ45 10G connector, plastic	09 45 125 156 0
Han® 3 A RJ45 10G connector, metal	09 45 115 156 0
Han® 3 A RJ45 10G connector insert	09 45 100 156 0

## Han® 3 A RJ45 Hybrid 10G connector

- PROFINET data and 24 volt power supply in one connector
- 4 power contacts with max. 48 V / 16 A
- Field installable using IDC-technology
- For solid and stranded wire AWG 27 to AWG 22
- Cat. 6, transfer class E<sub>A</sub>, suitable for 1/10 Gigabit Ethernet
- Temperature range -40 °C to +70 °C
- Degree of protection IP 65 / IP 67
- Cable diameter 6 – 12 mm



Identification	Part number
Han® 3 A RJ45 Hybrid 10G connector, plastic	09 45 125 176 0
Han® 3 A RJ45 Hybrid 10G connector, metal	09 45 115 176 0
Han® 3 A RJ45 Hybrid 10G connector insert	09 45 100 176 0

## Han-Max® RJ45 10G connector

- Field installable using IDC-technology
- For solid and stranded wire AWG 27 to AWG 22
- Cat. 6, transfer class E<sub>A</sub>, suitable for 1/10 Gigabit Ethernet
- Temperature range -40 °C to +70 °C
- Degree of protection IP 65 / IP 67
- Cable diameter 4 – 8 mm



Identification	Part number
Han-Max® RJ45 10G connector	09 15 300 043 1



**Pushing Performance**

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