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Since 1945



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# **HARTING**

## News 2024

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# Industrial connectors / Han®

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## HARTING AEF HV



The HARTING AEF HV is the new interface to enable the electrification of tractors and machinery for agriculture. It paves the way for precision farming to optimise sustainability and environmental compatibility. The connector was designed according to the **A**gricultural Industry **E**lectronics **F**oundation (AEF) and the international standard ISO 23316-2.

- Increased efficiency (precision farming) due to electrification of agricultural work
- Secure plug & play solution due to finger protected contacts
- Integrated break-away function ensures safe release



<https://www.HARTING.com/aef>

## Han® Protect



Industrial processes and infrastructures are controlled and secured via control cabinets. With the Han® Protect, HARTING has developed a new connector that simplifies protection and reduces the required installation space in the control cabinet. Blown fuses can be detected by LED without opening the cabinet and replaced without tools.

- Increased system availability due to reduced **Mean Time To Repair (MTTR)**
- Increased efficiency in maintenance processes due to visual identification of blown fuses outside of control cabinets
- Space savings of up to 30% for control cabinets by eliminating extensive fuse terminal rows inside of the control cabinet



<https://www.harting.com/node/52637>

## Han-Modular® RJ45 Domino



The new RJ45 Domino Module allows new possibilities for optimisation, including space and weight savings of up to 50 %, thus reducing the CO<sub>2</sub> footprint. Installers also benefit from shorter assembly times. Due to the reduced connector size, assembly areas that are difficult to reach can be equipped more efficiently.

- Smaller and lighter connectors allow space savings of up to 50 %
- Reduction of installation times by combining several individual connections
- Sustainability through consistent modularisation



<https://www.harting.com/domino>

## Han® GreenLine



With the HARTING Han® GreenLine, the first CO<sub>2</sub>-reduced connector components reach market maturity. The ISCC+ certification enables complete traceability of the materials used along the entire supply chain. Customers can thus improve their CO<sub>2</sub> balance.

- Up to 71 % CO<sub>2</sub> savings, 61 % renewable material (certified bio-circular polycarbonate)
- ISCC+ certification enables the complete traceability of the materials used along the entire supply chain
- Products with scannable digital product passport to access Product Carbon Footprint (PCF)



<https://www.harting.com/greenline>

## Han® Push-In



HARTING is expanding its portfolio with the first monoblock variants for the Han® housings. Thanks to the use of Push-In technology, the new Han® 3A and Han® 4A inserts enable up to 30 % faster field assembly of connectors. This makes it particularly suitable for environments where space for installation work is at a premium.

- Up to 30 % less assembly time with direct insertion of the conductor into the contact chamber
- Easy handling due to tool-less termination
- Maximal flexibility: suitable for ferrules, stranded wires and solid conductors



<https://www.harting.com/pushin>

## Han® B Docking Frame



HARTING is expanding its range of docking frames with IP65/67 protected solutions available in the standard sizes for industrial connectors (6B to 24B). This allows machine modules as well as tools to be docked automatically – and entirely tool-free. A plug-in process or even hard wiring including cables can be dispensed with “blind mating” option.

- Lower production and installation costs thanks to “blind mating” option
- Touch safe contacts streamline convenient installation
- High reliability thanks to protection class IP65/67



<https://b2b.harting.com/ebusiness/599218>



## Han-INOX®



The Han-INOX® connector series featuring stainless steel housings is now completely available in Han® B format. The corresponding bulkhead mounted housings and hoods, with top or side cable entry as well as with protection cover, are available in the sizes Han® 6B to 24B.

- Longer lifetime due to high quality stainless steel
- Corrosion-resistant for the use under extreme conditions
- Resistant to aggressive chemicals/cleaning agents



<https://b2b.harting.com/ebusiness/380516>

## Han® HPR Single Pole



The new Han® HPR Single Pole portfolio transmits power up to 650 A, 4 kV AC/DC through reliable Han® HC Modular contacts. The results are high-performance connectors in HPR housings with IP68/69 protection for energy applications. Up to eight 250/350 A contacts or six 650 A contacts can be accommodated.

- Reduces handling weight, so single wires can now be plugged
- Safe assembly due to integrated coding pins
- Complexity reduction due to standardisation and simplification



<https://b2b.harting.com/ebusiness/521098>

# Industrial Ethernet Switches

## Ha-VIS eCon 4000 (SPE)



HARTING has now launched the Ha-VIS eCon 4000 M12 T1 **SPE**, a **S**ingle **P**air **E**thernet (SPE) switch with IP67 protection. The robust metal housing stands up to the adversities of harsh outdoor environments (tested for rail vehicles according to EN 50155) and enables secure data communication - also in challenging and demanding indoor industrial scenarios.

- Easy integration of SPE in industrial networks
- Reliable data transmission under extreme conditions (IP67)
- Longer service life because the devices are protected against the ingress of dust and temporary immersion (IP67)



<https://b2b.harting.com/ebusiness/34259>

# Interface connectors

## HARTING T1 Industrial Dual Port



The new T1 Industrial Dual Port combines two 360° shielded Single Pair Ethernet ports for your miniaturized future applications. 50 % smaller than common RJ45 ports, the T1 Dual Port effectively supports miniaturisation of modern Automation devices and offer data rates up to 10Gbit/s in a robust design acc. to IEC 63171-6. Integrated Magnetics, status lights and the modular expandable design are further arguments for smart SPE interfaces in next generations IoT devices.

- Dual port for T1 Industrial style SPE connectivity
- Acc. to IEC 63171-6 standard
- Reduced Ethernet connectivity for smart networks from the cloud to the field level
- UPC UA /TSN real time communication for every sensor/actor
- Data rates up to 10Gbit/s
- Transmission lengths up to 1000 m
- Miniaturized Design 21.15 x 35 x 14.25 mm

# PCB connectors

## *har-flex* IDC4



*har-flex*® Board IDC is the new compact and low profile solution for the board to board connection of ribbon cables. One side fixed, one side flexible connectable for flexible PCB designs in every distance and pin count from 6-50 in even steps.

- Reduced costs due to less parts, less noble metal and reduced complexity
- Compact and low profile solution for small spaces
- Adaptable cable assembly process:  
manual assembly tool or pressing machine
- Flexible PCB design thanks to pole counts from 6-50 in even steps
- Hold-downs and optional strain reliefs for extra reliability



<https://b2b.harting.com/node/58129>

# Circular Connectors

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## B23



One Cable Automation pursues the goal of particularly advantageous and optimal cabling of devices, machines and systems as well as the associated peripherals. The basic principle here is the combination of power, signal and data communication, combined in one connector. This saves space, time and money, as cable runs and thus the complexity of the entire cabling process are significantly reduced. With the B23 wall bushing, HARTING is presenting the first solution for use in OCA systems, and further variants and designs, e.g. B17, are already in preparation.

- Reducing the number of device interfaces
- Savings in time, space and costs
- Reduced cabling complexity
- Data, signal and power in one interface

## M12 Power L-coded Push-In



For power supply in modern automation applications such as small drives or field bus modules, interfaces must be as robust, small and easy to connect as possible. For a secure connection between connector and cable, HARTING has developed the M12 Power in L-coding, which is now also available with the well-known push-in connection technology. It does not require any special tools and is very easy to connect in the field. In a space-saving manner, up to 16A can be transmitted in the IP65/67 protected housing.

- Push-in termination technology enables simple, quick and tool-free assembly
- Time-saving & convenient
- Vibration-proof and maintenance-free
- -40°C up to +125°C
- Connection range from 0.5 to 2.5 mm<sup>2</sup>
- Connector straight, IP65
- Male and female mating face

# System cabling

## M12 PROFINET Type R



These cable assemblies are especially designed for robotic applications and combines the resistance against horizontal and torsion influences. That means floor to robotic head cabling is now possible and the cable assemblies can be used e.g. for cameras or intelligent grabbers at robotic heads.

- Resistance against horizontal and torsion influences
- According to RoHs guideline and UL recognized
- Halogen free



<https://www.harting.com/node/20996>



## M12 A-coded



M12 cable assemblies are used to transmit signals or to supply devices with voltages and currents of up to 250 V/4 A. Dynamic applications, like robots or drag chains, needs these assemblies which are created with the help of the online cable configurator. The unshielded M12 A-coded cable assembly with standardized interface is ideal for use in demanding environments.

- Different cable possibilities available
- IP65/67 due to robust and overmoulded design
- Create your own assembly with the M12 online configurator



<https://www.harting.com/node/20996>

## HARTING MiniPushPull T1



The IEC 63171-6 compliant T1 Single Pair Ethernet connector is the first choice for industrial applications by the international standards committees ISO/IEC, TIA and IEEE. Based on a modular system, applications from IP20 to IP65/67 are possible. The Mini PushPull brings the T1 SPE mating face from the field to the machine and enables quick, easy and reliable installation.

- Simple plugging and unlocking due to PushPull locking mechanism
- Suitable for applications with high packing density
- Robust with bend protection due to overmoulded cable outlet



<https://www.harting.com/node/20996>

## HARTING ix Industrial® overmoulded



The further development of the ix Industrial combines all the customer requirements of recent years. The integrated PushPull mechanism enables an increase in packing density, even in the vertical direction. The reduced installation space of the ix Industrial interface compared to typical RJ45 sockets enables a significant reduction in the size of all types of devices. An overmoulded cable outlet ensures robust kink protection in harsh industrial environments and a tight fit of the cable under high pull-out forces.

- Easy insertion and release thanks to PushPull locking mechanism
- Suitable for applications with high packing density
- Robust with kink protection thanks to overmoulded cable outlet



<https://www.harting.com/node/20996>

## UIC 558 circular connector Railway



The pre-assembled and tested cable assemblies with a UIC-558-compliant interface enable simple connection of remote control and information cables at locomotives for passenger trains and are therefore used to transmit data and signals. This includes the remote-controlled switching of lighting, the opening and closing of doors and the transmission of acoustic information or binary data packets.

- Break-away function: ensures a non-destructive disconnection of plug and socket
- IP69 in mated and locked position
- Corrosion resistance according to ASTM B117-09



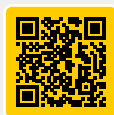
<https://www.harting.com/node/20996>

## Han® 1A overmoulded



The Han® 1A connector is ideally suited for “on-site” assembly, but the working conditions on site are often not ideal. Here, overmoulded pre-assembled system cables round off the range. Customised and tested with industrial-grade PVC cores, they are ready for immediate use via „plug and play“.

- High flexibility at the place of use
- Special PVC cables
- Reduction of installation times



<https://www.harting.com/node/25583>

## Customised Solution

### Dual USB charging plug



The chargers are especially designed for railway and industrial applications and allow the charging of mobile devices for example in trains. The products are in conformity with the common requirements of the Railway standards (DIN EN 45545-2). Three different versions are available to cover future standards (USB-C) and well known existing variants (USB-A).

- According to railway standard DIN EN 45545-2
- Thermal monitoring
- Bending and torsion cycles up to 5 million, reversed bending up to 1 million



<https://www.harting.com/taxonomy/term/37>

## Connectivity for the Hydrogen Industry



HARTING offers customised system solutions for monitoring and controlling the production, storage, distribution and transfer of hydrogen. High-pole outdoor variants for container solutions and offshore applications, as well as special expanded beam cable assemblies, are ideally suited for use in this challenging industrial environment.

- Space-saving, modular and individually configurable components possible
- High-pole outdoor variants available
- Complete cable assemblies possible in accordance with railway standards



<https://www.harting.com/node/51830>

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