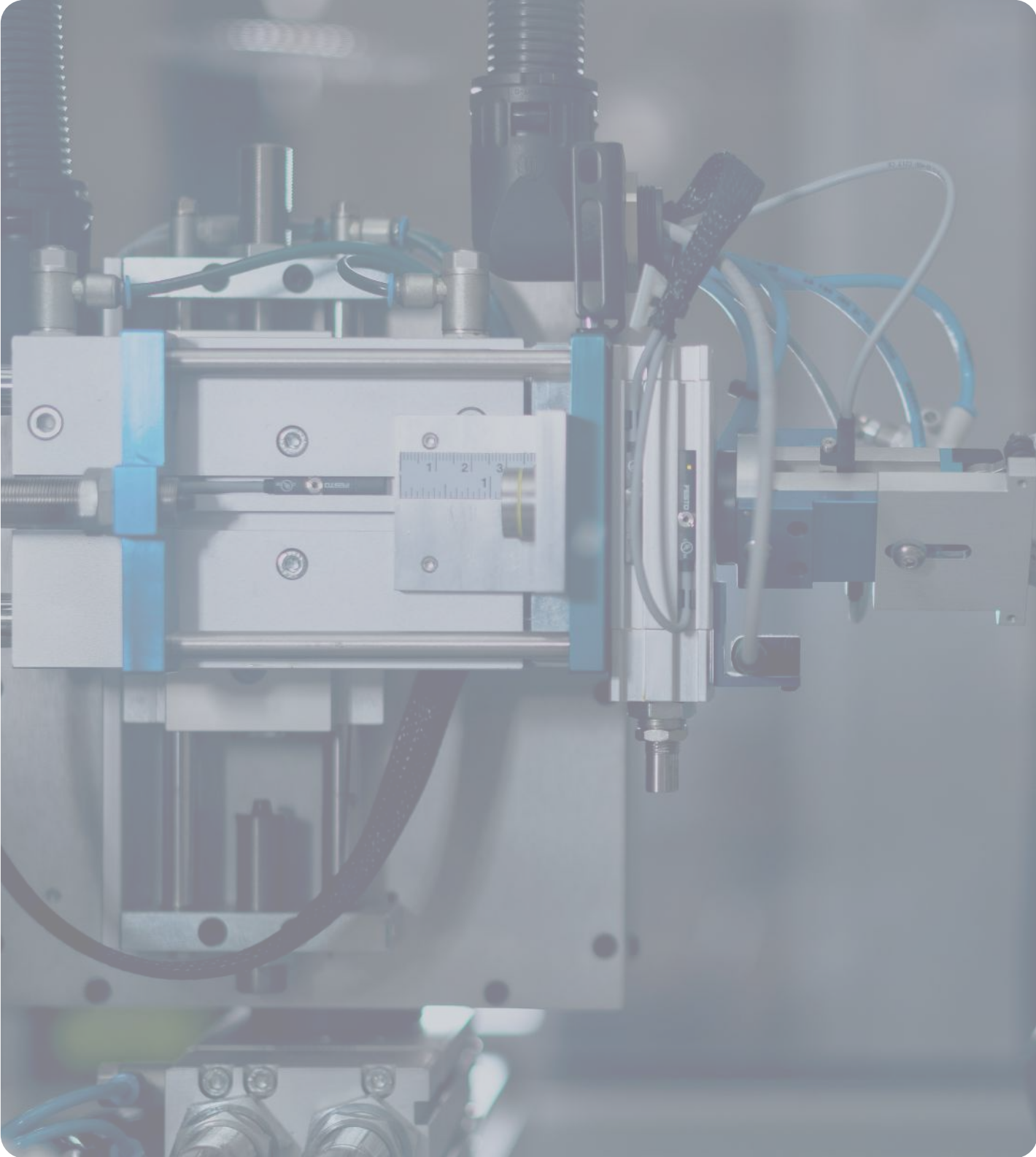


Industrial Ethernet



What is Industrial Ethernet?

Industrial Ethernet is a special variant of Ethernet networking used in industrial environments. Unlike traditional Ethernet, which is typically used in office and home networks, Industrial Ethernet is designed to meet the harsh requirements and environmental conditions of factories, manufacturing plants and other industrial environments. It enables the networking of machines, control systems, sensors and other devices in such environments Industrial Ethernet interconnect cables and connectors are critical to ensuring reliable communication and control. The most important features that an I.E. connection cable and connector must possess are extremely high robustness and resistance, reliability and protection against moisture and temperature fluctuations.

In some industrial applications, such as robotics or production process control, real-time communication is also crucial. Industrial Ethernet protocols such as PROFINET and EtherCAT are designed to provide low latency and deterministic communication. The security of data and devices is also crucial. Industrial Ethernet networks can use security mechanisms such as VLANs and firewalls to control access to critical systems.

Our services and products

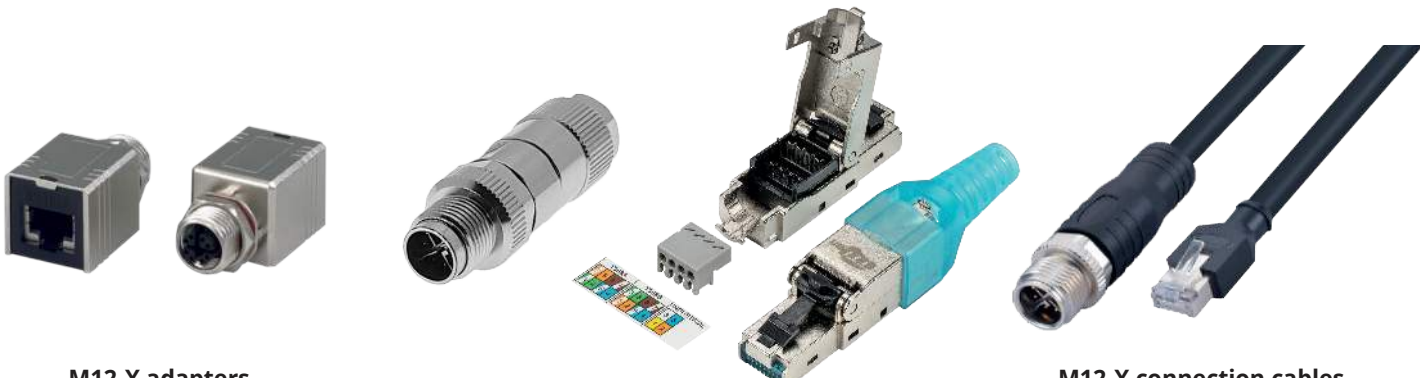
We offer a range of products specifically designed for industrial applications to ensure reliable and trouble-free operation at all times, even in harsh environments.

Available are M12 X-coded connectors and adapters, robust Cat.6A field assembly connectors and assembled connection cables of various configurations.

We adapt to the individual product requirements of our customers through customised OEM production.

We support a resilient supply chain for our customers by stocking customised products on the basis of framework agreements.

On the following pages we have compiled a selection of interesting Industrial Ethernet-compatible connection cables and components that are available from stock or can be ordered from us.



M12-X adapters
page 3

M12-X field termination plugs
page 3

RJ45 field termination plugs
page 4

M12-X connection cables
page 5





+ Advantages

- Easy conversion from M12 X-code to RJ45
- Higher performance than ISO 11801 class EA
- 360° shielding / protection against moisture
- Optional M12 dust cap

M12 Adapters X-coded (F/F)

Interface A:	M12 X-coded, 360° shielding, IP68 (mated)
Interface B:	RJ45 female, IP20 (mated)
Housing material:	Zinc die-cast
IEC standards:	61076-2-109 / 60603-7-51
Order information:	OEM article / MOQ: 600 pieces
Art. No.	M12X-RJ45-FF (180°) M12X-RJ45A-FF (90°)



+ Advantages

- Secure locking with fixed screw
- High vibration and shock resistance
- Extremely robust
- Wire cutting function
- Designed for demanding environments

M12 Field Termination Plugs X-coded

Connector 1:	M12 -X male, 2 parts, locking per fixed screw
Suitable cables:	AWG26/1 - 26/7, Ø solid wire: 0.4 mm, Ø stranded wire: 0.48 mm, OD: 5-9 mm
Transmission:	Up to 10 Gbps, PoE, PoE+, UPoE
Temperature range:	-40°C up to +90°C
Standards:	Category: 6 _A X-Coding: IEC PAS 61076-2-109, Ethernet: IEEE 802.3an, IP67
Art. No.	8102
Connector 2:	M12 -X plug, locking per fixed screw
Suitable cables:	AWG20/1- 26/7, OD: 5.5-9 mm
Order information:	OEM article / MOQ: 500 pieces
Art. No.	8102-1





+ Advantages

Ultra-compact dimensions, space-saving

Extremely robust

Up to 5x reassemblable

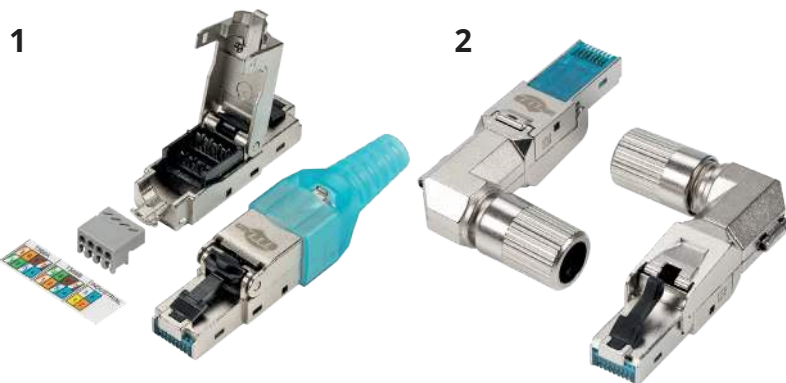
Tool-free, easy assembly

UL-listed

RJ45 Field Termination Plug ultra-compact

Connector type:	RJ45 male, 50µ gold-plated contacts, Cat.6 _A
Suitable cables:	AWG26 - 22 (solid wire), AWG27 - 22 (stranded wire), OD: 6-9 mm
Pin-out:	EIA/TIA 568A/B and PNO
Nominal power:	1.5A
Mating cycles:	>750
Temperature range:	-10°C up to +60°C

Art. No. 8134-1



+ Advantages

Short design, space-saving

Extremely robust

Up to 5x reassemblable

Tool-free, easy assembly

UL-listed

RJ45 Filed Termination Plugs

Connector 1:	RJ45 male, 50µ gold-plated contacts, Cat.6 _A
Connector 2:	RJ45 male, 50µ gold-plated contacts, Cat.6A, cable outlet 360° adjustable
Passende Kabel:	AWG26 - 22 (solid wire), AWG26 - 22 (stranded wire), OD: 6-9 mm
Pin-out:	EIA/TIA 568A/B and PNO
Nominal power:	1.5A
Mating cycles:	>750
Temperature range:	-10°C up to +60°C

Art. No. 8134 (1) | 8135 (2)





+ Advantages

High EMC protection

Extremely robust

Reliable screw locking

Protection against moisture (IP68)

M12 Connection Cables X-coded

Connector type:	M12 X-coded male / male
Cable:	Copper, PVC jacket
Shielded:	yes
IP Class:	68 (in locked condition)
Order information:	OEM article / MOQ: 500 pieces

Art. No. M12X-M12X-MM-x,xM (180°) | M12XA-M12X-MM-x,xM (90°) (x,x = Length)

Available lengths 3.0M / 5.0M



+ Advantages

High EMC protection

Extremely robust

Reliable screw locking

Protection against moisture (M12 connector)

M12 / RJ45 Connection Cables X-coded

Connector type:	M12 X-coded male / RJ45 male
Cable:	Copper, PVC jacket
Shielded:	yes
IP Class M12:	68 (in locked condition)
Order information:	OEM article / MOQ: 500 pieces

Art. No. M12X-RJ45-MM-x,xM (180°) | M12XA-RJ45-MM-x,xM (90°) (x,x = Length)

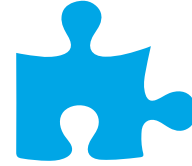
Available lengths 3.0M / 5.0M





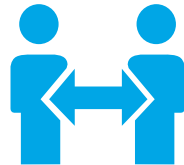
FAMILY-RUN & MEDIUM-SIZED

We are fast and flexible in decision-making, personally available and see the business as a long-term partnership.



CUSTOMER-SPECIFIC

We fulfil wishes: With over 1000 tools for OEM and 10,000 technical sketches, we are able to offer solid customised solutions.



STRONG NETWORK

We have known our partners for a long time and value them. We have access to original connectors from all well-known manufacturers or, on request, low-priced compatible products with guaranteed stable quality.



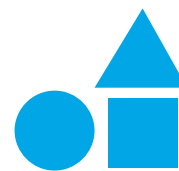
SOLUTION-ORIENTED

With established and structured processes and personal service we find the best technical and economic solution for your request.



100% QUALITY-TESTED

All our cable assemblies are 100% electrically tested before delivery and the production facilities can be audited at any time.



ALWAYS FLEXIBLE

Flexibility from small to large series through production facilities in Asia and Eastern Europe.





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