

# Innovations 2024

## November



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Our product brands ÖLFLEX®, UNITRONIC®, ETHERLINE® and HITRONIC®. In all variations for every requirement.

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For reliable plug-in connections – even after several mating cycles.

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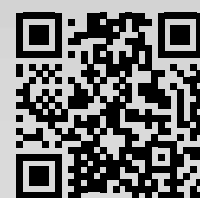
# Cables

Power and control cables

NEW



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## ÖLFLEX® 195 CY +

Oil-resistant, shielded control cable, no inner sheath for small outer diameters, high electrical safety thanks to 4000 V test voltage, with UL approval.

### Benefits

- No inner jacket results in lower weight and smaller outer diameters.
- Saves space thanks to reduced wall thicknesses.
- Optimised cost-effectiveness due to material savings.
- Ideal protection against electromagnetic interference thanks to copper stranded shielding with a high degree of coverage.
- Cable with multiple certification enables universal use, reduces the variety of parts and thus ensures savings in logistics.
- UL/CSA certification in accordance with technical data enables the product to be used in North America.
- Available in conductor cross-sections up to 120 mm².
- Increased oil-resistant in accordance with DIN EN 50363-4-1 (TM5).
- High electrical safety thanks to 4000 V test voltage.

### Application ranges

- Universally applicable for wiring internal machine and cross-plant control circuits.
- For use with metric SKINTOP®/SKINDICHT® cable glands.
- For fixed installation and occasional movement without tensile stress.
- Suitable for use in dry, damp and especially oily environments.
- Suitable for medium mechanical stress.
- PVC outer sheath is resistant to acids and alkalis.
- Suitable for outdoor use, but subject to the temperature range and only when protected from direct sunlight.

## Technical Data



**Classification ETIM 5/6**  
ETIM 5.0/6.0 Class-ID: EC000104  
ETIM 5.0/6.0 Class-Description:  
Control cable



**Core identification code**  
Black with white numbers acc. to VDE 0293-334



**Conductor stranding**  
Fine wire according to VDE 0295, class 5/IEC 60228 class 5



**Minimum bending radius**  
Occasional flexing: 20 x outer diameter  
Fixed installation: 6 x outer diameter



**Nominal voltage**  
HAR U<sub>0</sub>/U: 300/500 V  
UL/CSA: 600 V



**Test voltage**  
4000 V



**Protective conductor**  
G = with GN-YE protective conductor  
X = without protective conductor



**Temperature range**  
Occasional flexing: -5 °C to +70 °C  
UL/CSA: -5 °C to +90 °C  
Fixed installation: -40 °C to +70 °C  
UL/CSA: +90 °C



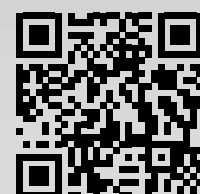
# Cables

Power and control cables

NEW



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## ÖLFLEX® SOLAR XLS-R T

Twin solar cable with combined forward and return conductor, easy to split into two individual cables, different wire insulation colours.

### Benefits

- Twin cable with combined outgoing and return conductor simplifies system planning and saves time during installation.
- High flexibility thanks to simple separation of the twin cable along the separator into two individual cables.
- Halogen-free core insulation and sheath mixture for compliance with special fire protection requirements.
- Cross-linked insulation and sheath materials promote durability at high temperatures or high current loads, ensure high dielectric strength and a high short-circuit temperature.
- Saves space and weight thanks to small outer diameters.
- Exact quantity control during installation thanks to metre markings on the outer sheath.
- Different core insulation colours for easy differentiation of the two cores.

### Application ranges

- For the unprotected connection of solar modules and inverters in earthed and unearthed photovoltaic systems in accordance with IEC 60364-5-52.
- For connecting solar modules to each other. For fixed installation and occasional movement.
- Underground installation in protective conduits only in case of dissipation of water logged inside of the conduit.

## Technical Data



**Core identification code**  
black/red



**Conductor stranding**  
Fine wire according to VDE 0295, class 5/IEC 60228 class 5



**Minimum bending radius**  
Fixed installation: 5 x outer diameter



**Nominal voltage**  
AC  $U_o/U$  : 600/1000 V  
DC  $U_o/U$  : 900/1500 V  
Max. permissible operating voltage:  
DC 1,8 kV (Conductor-conductor, non earthed system)



**Test voltage**  
AC 6500 V



**Temperature range**  
Fixed installation: -40 °C to +100 °C  
max. conductor temperature





# Connectors

Data connectors

NEW



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## EPIC® DATA M12X

**What is new?** Compatible with a wide range of LAPP Ethernet cables and cost-optimised.

### Benefits

- Stability due to die-cast zinc metal housing.
- Easy cable connection by insulation displacement technology.
- UL certification according to technical data enables the product to be used in North America.
- In the plugged-in state, protection class IP 67 can be achieved.

### Application ranges

- Universally usable at machine interfaces for many applications for data and signal transmission.
- Also suitable for EtherCAT, EtherNET/IP and 4-pair PROFINET applications.

## Technical Data



**Classification ETIM 5/6**  
ETIM 5.0/6.0 Class-ID: EC001121  
ETIM 5.0/6.0 Class-Description:  
Modular connector



**Protection rating**  
IP 67



**Ambient temperature (operation)**  
-40 °C to +85 °C



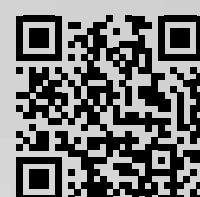
# Connectors

Data connectors

NEW



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## EPIC® DATA RJ45 +

Field-attachable RJ45 data connector, for assembly with Cat.6A or Cat.8.1 cables, UL-certified, available in various versions.

### Benefits

- Easy cable connection thanks to insulation displacement technology.
- Low potential for errors during assembly thanks to core manager with colour coding according to EIA/TIA standard (T568B).
- Colour coding according to EIA/TIA standard also for reduced wire diameters.
- Stability thanks to die-cast zinc metal housing.
- UL certification in accordance with technical data enables the product to be used in North America.

### Application ranges

- Suitable for all LAN networks and Ethernet applications up to 40GBase-T.
- Suitable for structured building cabling in accordance with EN 50173 and ISO/IEC 11801.
- Cat.8.1-Steckverbinder are suitable for use in Backbone-Netzwerkbereichen.
- Cat.8.1-Steckverbinder are suitable for short transmission distances of up to 30 m, such as those found in data centres, server rooms or for switch-to-switch connections.
- T568B colour coding for Cat.6A cables or Cat.8.1/8.2 cables.

## Technical Data



**Classification ETIM 5/6**  
ETIM 5.0/6.0 Class-ID: EC001121  
ETIM 5.0/6.0 Class-Description:  
Modular connector



**Protection rating**  
IP 20



**Ambient temperature (operation)**  
-40 °C to +85 °C



EtherNet/IP™



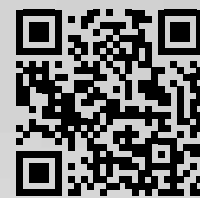
## Connectors

Data connectors

NEW



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## EPIC® DATA RJ45 crimping

Field-attachable RJ45 data connector with sharp-edged, three-pronged insulation displacement connectors for contacting the strands, for assembly with Cat.6A cables.

### Benefits

- Low price with high packaging unit.
- Simplified pin assignment using guide comb and transparent viewing window.
- Simple cable connection thanks to insulation displacement technology.
- Reliable penetration of the single-wire insulation and contacting of the strands thanks to insulation displacement module with three sharp-edged contacting blades per contact.
- Suitable for cable outer diameters up to 6.5 mm.

### Application ranges

- For data transmission in the frequency range up to 600 MHz.
- For use with Cat.6A cables.
- Suitable for all LAN networks and Ethernet applications up to 100Base-TX.

## Technical Data



**Specific insulation resistance**  
see data sheet



**Protection rating**  
RJ45 - IP20



**Ambient temperature (operation)**  
-40 °C to +55 °C



**Contact surface material**  
Au (gold)



# Connectors

Circular connectors

NEW



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## EPIC® POWER M 12 flush-type +

M12 chassis connector (L/T/S/K-coded) for device connection on the housing, with ready-to-connect single cores for quick wiring in the housing, different areas of application, IP 67.

### Benefits

- Convenient connection solution for individual device concepts.
- With M16 thread for easy screwing into a housing with threaded bore (including lock nut for through bores without thread).
- With ready-to-connect single cores for quick wiring within the housing.
- Mechanical coding of the connector face prevents mismatching with mating connectors.
- In the mated state, protection class IP 67 can be achieved.
- UL certification in accordance with technical data enables the product to be used in North America.

### Application ranges

- For connecting devices to control cabinets or machine housings.
- T- and L-coded plug connections for direct current applications in the low-voltage range. For the power supply of smaller devices (e.g. decentralised I/O modules, smaller motors).
- S- and K-coded plug connectors for connecting three-phase motors up to 7.5 kW.
- Good oil and chemical resistance.

## Technical Data



**Classification ETIM 5/6**  
ETIM 5.0/6.0 Class-ID: EC002635  
ETIM 5.0/6.0 Class-Description:  
Circular connector (industrial connector)



**Pollution degree**  
3

**Contact resistance**  
< 5 mOhm



**Contacts**  
Copper alloy, gold-plated



**Number of contacts**  
T-coding, S-coding, L-coding, K-coding  
4; 3+PE; 4+FE; 4+PE



**Protection rating**  
IP 67



**Cycle of mechanical operation**  
100



**Temperature range**  
-25 °C to +85 °C





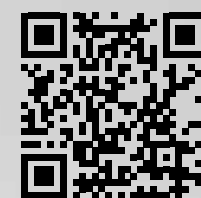
# Connectors

Rectangular connectors

NEW



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## EPIC® H-A 3 Cage clamp connection +

Compact, 3+PE rectangular connector insert with cage clamp connection, made of non-flammable plastic (to UL94 V-0), for EPIC® H-A 3 housing.

### Benefits

- Easy to assemble due to straight conductor entry.
- Cage clamp connection allows assembly without special tools and creates a vibration-proof connection between contact and cable. Strands can be connected with or without end sleeves.
- Made of robust plastic (flammability class V-0 according to UL94 test method for the flammability of plastics).
- Designed for use where space is limited thanks to small size.
- Large variety of suitable housing variations.
- UL certification in accordance with technical data enables the product to be used in North America.

### Application ranges

- For power supply connection of devices and machines in various applications.
- For use with EPIC® H-A 3 series housings.
- Suitable for outdoor use, taking into account the temperature range.

## Technical Data



**Rated voltage (V)**  
IEC: 230 V / 400 V  
UL: 600 V

**Rated impulse voltage**  
4 kV



**Rated current (A)**  
10 A



**Pollution degree**  
3

**Flammability**  
UL94 V-0

**Contact resistance**  
< 1 mOhm



**Contacts**  
Silver-plated brass



**Number of contacts**  
3 + PE



**Termination methods**  
Cage clamp termination: 0.14–2.5 mm<sup>2</sup>  
Cage clamp termination: 26–14 AWG



**Material**  
PC, polycarbonate



**Cycle of mechanical operation**  
500



**Temperature range**  
–40 °C to +125 °C



Connectors

Rectangular connectors



EPIC® H-A 4 Cage clamp connection +

Compact, 4+PE rectangular connector insert with cage clamp connection, made of non-flammable plastic (to UL94 V-0), for EPIC® H-A 3 housing.


Benefits

- Easy to assemble due to straight conductor entry.
- Cage clamp connection allows assembly without special tools and creates a vibration-proof connection between contact and cable. Strands can be connected with or without end sleeves.
- Made of robust plastic (flammability class V-0 according to UL94 test method for the flammability of plastics).
- Designed for use where space is limited thanks to small size.
- Large variety of suitable housing variations.
- UL certification in accordance with technical data enables the product to be used in North America.


Application ranges

- For power supply connection of devices and machines in various applications.
- For use with EPIC® H-A 3 series housings.
- Suitable for outdoor use, taking into account the temperature range.

Technical Data


 **Rated voltage (V)**  
IEC: 230 V / 400 V  
UL: 600 V


**Rated impulse voltage**  
4 kV


 **Rated current (A)**  
10 A

**Flammability**  
UL94 V-0


**Contact resistance**  
< 1 mOhm


 **Contacts**  
Silver-plated brass

 **Number of contacts**  
4 + PE

 **Termination methods**  
Cage clamp termination: 0.14–2.5 mm²  
Cage clamp termination: 26–14 AWG

 **Material**  
PC, polycarbonate

 **Cycle of mechanical operation**  
500

 **Temperature range**  
–40 °C to +125 °C



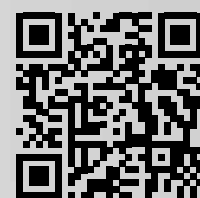
# Connectors

Rectangular connectors

NEW



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## EPIC® H-Q 2 Axial screw connection +

Compact, 2+PE rectangular connector insert with axial screw connection, powerful up to 40 A, variants with 400 V or 830 V rated voltage available.

### Benefits

- Powerful up to 40 A despite extremely space-saving size for very small devices.
- Available in variants with a rated voltage of 400 V or 830 V. Article names with the suffix „V“ are designed for a rated voltage of 830 V.
- Axial screw terminal technology allows service-friendly connection without special crimping tools, saves costs and is suitable for detachable connections.
- Simple cable connection using an Allen key.
- Easy to assemble due to straight conductor entry.
- Designed for use where space is limited thanks to its small size.
- Large variety of suitable housing variations.
- UL certification in accordance with technical data enables the product to be used in North America.
- Silver-plated contact surface for low contact resistance and minimised heat generation at the contact.

### Application ranges

- For power supply connection of devices and machines in various applications.
- For use with EPIC® H-A 3 series housings.
- Suitable for outdoor use, taking into account the temperature range.

## Technical Data



**Rated voltage (V)**  
400 V

**Rated impulse voltage**  
6 kV



**Rated current (A)**  
40

**Flammability**  
UL94 V-0

**Contact resistance**  
< 1 mOhm



**Number of contacts**  
2 + PE



**Termination methods**  
Axial screw termination



**Material**  
PC, polycarbonate



**Cycle of mechanical operation**  
500



**Temperature range**  
-40 °C to +125 °C



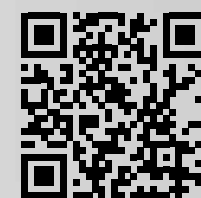
# Connectors

Rectangular connectors

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## EPIC® H-Q 12 +

Compact, 12+PE rectangular connector insert, powerful up to 10 A, made of non-flammable plastic (to UL94 V-0), for EPIC® H-A 3 housing.

### Benefits

- Powerful up to 10 A despite extremely space-saving size for very small devices.
- Crimp termination provides a vibration-proof connection, ensures maximum contact reliability between contact and cable and is suitable for automated assembly.
- Can be connected to market-standard connectors.
- Made of robust plastic (flammability class V-0 according to UL94 test procedure for the flammability of plastics).
- UL certification according to technical data enables the product to be used in North America.

### Application ranges

- For power supply connection of devices and machines in various applications.
- Typical areas of use are electric motors and servo drives.
- For use with EPIC® H-A 3 series housings.

## Technical Data



**Rated voltage (V)**  
IEC: 400 V  
UL: 600 V  
CSA: 600 V

**Rated impulse voltage**  
6 kV



**Rated current (A)**  
10 A

**Flammability**  
UL94 V-0



**Contact resistance**  
< 0.3 mOhm



**Number of contacts**  
12 + PE



**Termination methods**  
Crimp termination



**Cycle of mechanical operation**  
500



**Temperature range**  
-40 °C to +125 °C





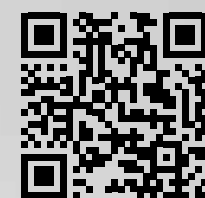
# Connectors

Rectangular connectors

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## EPIC® H-BE 6 Push-in connection +

6+PE rectangular connector insert with push-in connection, made of non-flammable plastic (to UL94 V-0), signal test when installed, with UL approval.

### Benefits

- Inserts from the EPIC® H-BE series are classics in Industry and are ideal for use with higher voltages and currents.
- Inserts from the EPIC® H-BE series can be combined with different connection types within the same size (screw, crimping, cage clamp or push-in). Push-in connection allows the shortest connection times: Strands with end sleeves can be inserted and contacted completely without tools; simply press the orange-coloured button to release the contact. For strands without end sleeves, the button must be pressed to open the spring before insertion or removal.
- The round test socket for 2 mm standard test probes is positioned so that it is still accessible for signal testing even if the insert is already installed in the panel-mount base.
- Made of robust plastic (flammability class V-0 according to UL94 test method for the flammability of plastics).
- UL certification according to technical data allows the product to be used in North America.
- Large variety of suitable housing variations.

### Application ranges

- For the power supply connection of devices and machines in various applications.
- Suitable for wiring inside control cabinets.
- For the transmission of control signals to actuators and servomotors.
- Typical areas of application are stage, lighting and lifting technology.

## Technical Data



**Classification ETIM 5/6**  
ETIM 5.0/6.0 Class-ID: EC000438  
ETIM 5.0/6.0 Class-Description:  
Contact insert for industrial connectors



**Rated voltage (V)**  
IEC: 500 VUL: 600 VCSA: 600 V  
Rated impulse voltage  
6 kV



**Rated current (A)**  
IEC: 16 A  
UL: 13 A  
CSA: 13 A



**Pollution degree**  
3

**Flammability**  
UL94 V-0

**Contact resistance**  
< 2 mOhm



**Contacts**  
Copper alloy, hard silver-plated



**Number of contacts**  
6 + PE



**Termination methods**  
Push-In termination: 0.14–2.5mm²  
Stripping length (mm)  
10



**Material**  
PC Polycarbonat



**Cycle of mechanical operation**  
500



**Certifications**  
UL-tested:  
UL File Number: E75770



**Temperature range**  
–40 °C to +100 °C, short-term up to  
+125 °C



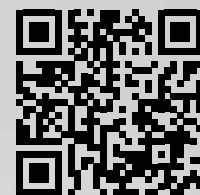
# Connectors

Rectangular connectors

NEW



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## Technical Data



**Classification ETIM 5/6**  
ETIM 5.0/6.0 Class-ID: EC000438  
ETIM 5.0/6.0 Class-Description:  
Contact insert for industrial connectors



**Rated voltage (V)**  
IEC: 500 VUL: 600 VCSA: 600 V  
Rated impulse voltage  
6 kV



**Rated current (A)**  
IEC: 16 A  
UL: 13 A  
CSA: 13 A



**Pollution degree**  
3

**Flammability**  
UL94 V-0

**Contact resistance**  
< 2 mOhm



**Contacts**  
Copper alloy, hard silver-plated



**Number of contacts**  
10 + PE



**Termination methods**  
Push-In termination: 0.14–2.5mm²  
Stripping length (mm)  
10



**Material**  
PC Polycarbonat



**Cycle of mechanical operation**  
500



**Certifications**  
UL-tested:  
UL File Number: E75770



**Temperature range**  
–40 °C to +100 °C, short-term up to  
+125 °C

## EPIC® H-BE 10 Push-in connection +

10+PE rectangular connector insert with push-in connection, made of non-flammable plastic (to UL94 V-0), signal test when installed, with UL approval.

### Benefits

- Inserts from the EPIC® H-BE series are classics in Industry and are ideal for use with higher voltages and currents.
- Inserts from the EPIC® H-BE series can be combined with different connection types within the same size (screw, crimping, cage clamp or push-in). Push-in connection allows the shortest connection times: Strands with end sleeves can be inserted and contacted completely without tools; simply press the orange-coloured button to release the contact. For strands without end sleeves, the button must be pressed to open the spring before insertion or removal.
- The round test socket for 2 mm standard test probes is positioned so that it is still accessible for signal testing even if the insert is already installed in the panel-mount base.
- Made of robust plastic (flammability class V-0 according to UL94 test method for the flammability of plastics).
- UL certification according to technical data allows the product to be used in North America.
- Large variety of suitable housing variations.

### Application ranges

- For the power supply connection of devices and machines in various applications.
- Suitable for wiring inside control cabinets.
- For the transmission of control signals to actuators and servomotors.
- Typical areas of application are stage, lighting and lifting technology.



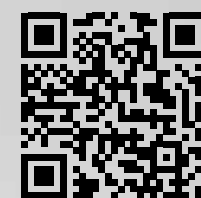
# Connectors

Rectangular connectors

NEW



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## EPIC® H-BE 16 Push-in connection +

16+PE rectangular connector insert with push-in connection, made of non-flammable plastic (to UL94 V-0), signal test when installed, with UL approval.

### Benefits

- Inserts from the EPIC® H-BE series are classics in Industry and are ideal for use with higher voltages and currents.
- Inserts from the EPIC® H-BE series can be combined with different connection types within the same size (screw, crimping, cage clamp or push-in). Push-in connection allows the shortest connection times: Strands with end sleeves can be inserted and contacted completely without tools; simply press the orange-coloured button to release the contact. For strands without end sleeves, the button must be pressed to open the spring before insertion or removal.
- The round test socket for 2 mm standard test probes is positioned so that it is still accessible for signal testing even if the insert is already installed in the panel-mount base.
- Made of robust plastic (flammability class V-0 according to UL94 test method for the flammability of plastics).
- UL certification according to technical data allows the product to be used in North America.
- Large variety of suitable housing variations.

### Application ranges

- For the power supply connection of devices and machines in various applications.
- Suitable for wiring inside control cabinets.
- For the transmission of control signals to actuators and servomotors.
- Typical areas of application are stage, lighting and lifting technology.

## Technical Data



**Classification ETIM 5/6**  
ETIM 5.0/6.0 Class-ID: EC000438  
ETIM 5.0/6.0 Class-Description:  
Contact insert for industrial connectors



**Rated voltage (V)**  
IEC: 500 VUL: 600 VCSA: 600 V  
Rated impulse voltage  
6 kV



**Rated current (A)**  
IEC: 16 A  
UL: 13 A  
CSA: 13 A



**Pollution degree**  
3

**Flammability**  
UL94 V-0

**Contact resistance**  
< 2 mOhm



**Contacts**  
Copper alloy, hard silver-plated



**Number of contacts**  
16 + PE



**Termination methods**  
Push-In termination: 0.14–2.5mm²  
Stripping length (mm)  
10



**Material**  
PC Polycarbonat



**Cycle of mechanical operation**  
500



**Certifications**  
UL-tested:  
UL File Number: E75770



**Temperature range**  
–40 °C to +100 °C, short-term up to  
+125 °C





Connectors

Rectangular connectors

NEW



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EPIC® H-BE 24 Push-in connection +

24+PE rectangular connector insert with push-in connection, made of non-flammable plastic (to UL94 V-0), signal test when installed, with UL approval.

Benefits

- Inserts from the EPIC® H-BE series are classics in Industry and are ideal for use with higher voltages and currents.
- Inserts from the EPIC® H-BE series can be combined with different connection types within the same size (screw, crimping, cage clamp or push-in). Push-in connection allows the shortest connection times: Strands with end sleeves can be inserted and contacted completely without tools; simply press the orange-coloured button to release the contact. For strands without end sleeves, the button must be pressed to open the spring before insertion or removal.
- The round test socket for 2 mm standard test probes is positioned so that it is still accessible for signal testing even if the insert is already installed in the panel-mount base.
- Made of robust plastic (flammability class V-0 according to UL94 test method for the flammability of plastics).
- UL certification according to technical data allows the product to be used in North America.
- Large variety of suitable housing variations.

Application ranges

- For the power supply connection of devices and machines in various applications.
- Suitable for wiring inside control cabinets.
- For the transmission of control signals to actuators and servomotors.
- Typical areas of application are stage, lighting and lifting technology.

Technical Data

**Classification ETIM 5/6**  
ETIM 5.0/6.0 Class-ID: EC000438  
ETIM 5.0/6.0 Class-Description:  
Contact insert for industrial connectors

**Rated voltage (V)**  
IEC: 500 VUL: 600 VCSA: 600 V  
Rated impulse voltage  
6 kV

**Rated current (A)**  
IEC: 16 A  
UL: 13 A  
CSA: 13 A

**Pollution degree**  
3

**Flammability**  
UL94 V-0

**Contact resistance**  
< 2 mOhm

**Contacts**  
Copper alloy, hard silver-plated

**Number of contacts**  
24 + PE

**Termination methods**  
Push-In termination: 0.14–2.5mm²  
Stripping length (mm)  
10

**Material**  
PC Polycarbonat

**Cycle of mechanical operation**  
500

**Certifications**  
UL-tested:  
UL File Number: E75770

**Temperature range**  
–40 °C to +100 °C, short-term up to  
+125 °C





## Connectors

Rectangular connectors

NEW



## EPIC® H-A/H-B Hood

EPIC® H-A/H-B series hood, die-cast aluminium, new design with improved haptics, for assembling a rectangular connector.

The same but better: this rectangular connector hood has been completely redesigned in terms of design and feel. While the technical features and benefits have remained the same, the modern design is not only visually appealing, but also gives you a much better grip when plugging and unplugging.

## Connectors

Rectangular connectors

NEW



## EPIC® H-A/H-B Cable coupler hood

EPIC® H-A/H-B series cable coupler hood, die-cast aluminium, new design with improved haptics, for assembling a rectangular connector.

The same but better: this rectangular connector cable coupler hood has been completely redesigned in terms of design and feel. While the technical features and benefits have remained the same, the modern design is not only visually appealing, but also gives you a much better grip when plugging and unplugging.

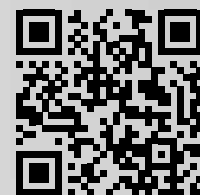
# Connectors

Rectangular connectors

NEW



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## EPIC® H-A 3 MTG

**What is new?** The grommet housing from the EPIC® H-A 3 series is now also available with an integrated SKINTOP® cable gland or with an extra-large M25 threaded borehole.

### Benefits

- The EPIC® H-A 3 series comprises the smallest housings in the range of heavy-duty industrial connectors and ensures secure connections in the smallest of spaces.
- The grommet housing can be mated with many commercially available housings (surface-mounted, base or coupling housings).
- With straight cable entry for organised cable routing and to prevent excessive bending of the cable.
- Available with threaded borehole or with extra large M25 threaded borehole for use with a corresponding cable gland.
- Also available as a variant with integrated SKINTOP® cable gland for optimum strain relief and sealing.
- Locking is via a longitudinal bracket on the mating housing. Complies with protection class IP 65 when locked.
- The arrow as a new design element on the housing surface is easy to feel and simplifies mating in confined and possibly poorly visible application areas.

### Application ranges

- To protect the connector insert from environmental influences.
- For use with many EPIC® rectangular connector inserts.
- For power supply connection of devices and machines in various applications.
- Can withstand high environmental and mechanical loads.
- Suitable for outdoor use.

## Technical Data



**Classification ETIM 5/6**  
ETIM 5.0/6.0 Class-ID: EC000437  
ETIM 5.0/6.0 Class-Description:  
Housing for industrial connectors



**Material**  
Housing: powder-coated zinc diecasting,  
grey  
Sealing: NBR



**Protection rating**  
IP 65 (latched)  
NEMA 250, UL50E: 12, 4 (latched)



**VDE-tested**  
Certified production control: VDE-REG.  
no.: B437  
UL-tested:  
UL File Number: E75770



**Temperature range**  
–40 °C to +100 °C, short-term up to  
+125 °C



# Connectors

Rectangular connectors

NEW



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## Technical Data



**Classification ETIM 5/6**  
ETIM 5.0/6.0 Class-ID: EC000437  
ETIM 5.0/6.0 Class-Description:  
Housing for industrial connectors



**Material**  
Housing: powder-coated zinc diecasting,  
grey  
Sealing: NBR



**Protection rating**  
IP 65 (latched)  
NEMA 250, UL50E: 12, 4 (latched)



**VDE-tested**  
Certified production control: VDE-REG.  
no.: B437  
UL-tested:  
UL File Number: E75770



**Temperature range**  
-40 °C to +100 °C, short-term up to  
+125 °C

## EPIC® H-A 3 MTS

**What is new?** The grommet housing from the EPIC® H-A 3 series is now also available with an integrated SKINTOP® cable gland or with an extra-large M25 threaded borehole.

### Benefits

- The EPIC® H-A 3 series comprises the smallest housings in the heavy-duty industrial connector range and ensures secure connections in the smallest of spaces.
- The grommet housing can be mated with many commercially available housings (surface-mounted, base-mounted or coupling housings).
- With lateral cable entry for organised cable routing and to prevent excessive cable bending.
- With threaded hole for use with a corresponding cable gland.
- Also available as a variant with integrated SKINTOP® cable gland for optimum strain relief and sealing. With threaded borehole for use with a corresponding cable gland.
- Also available as a variant with integrated SKINTOP® cable gland for optimum strain relief and sealing.
- Locking takes place via longitudinal brackets on the mating housing.
- Complies with protection class IP 65 when locked.
- The arrow as a new design element on the housing surface is easy to feel and simplifies mating in confined and possibly poorly visible application areas.

### Application ranges

- To protect the connector insert from environmental influences.
- For use with many EPIC® rectangular connector inserts.
- For power supply connection of devices and machines in various applications.
- Can withstand high environmental and mechanical loads.
- Suitable for outdoor use.





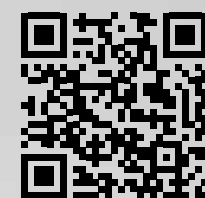
# Connectors

Rectangular connectors

NEW



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## EPIC® H-A 3 MEG +

EPIC® H-A 3 series installation housing, very compact design, straight cable entry, for assembly of a rectangular connector.

### Benefits

- The EPIC® H-A 3 series comprises the smallest housings in the heavy-duty industrial connector range and ensures secure connections in the smallest of spaces.
- The panel-mount housing can be mated with many commercially available grommet housings.
- With straight cable entry for organised cable routing and to prevent excessive bending of the cable.Easy mounting on the device by screwing in and fixing with a lock nut.
- The arrow as a new design element on the housing surface is easy to feel and simplifies mating in confined spaces and areas of application that may be difficult to see.

### Application ranges

- To protect the connector insert from environmental influences.
- For use with many EPIC® rectangular connector inserts.
- For power supply connection of devices and machines in various applications.
- Can withstand high environmental and mechanical loads.
- Suitable for outdoor use.

## Technical Data



**Classification ETIM 5/6**  
ETIM 5.0/6.0 Class-ID: EC000437  
ETIM 5.0/6.0 Class-Description:  
Housing for industrial connectors



**Material**  
Housing: powder-coated zinc diecasting, grey  
Lever: zinc-plated steel  
Sealing: NBR  
Housing: grey thermoplastic, black  
Lever: zinc-plated steel  
Sealing: NBR



**Protection rating**  
IP 65 (latched)  
NEMA 250, UL50E: 12, 4 (latched)



**VDE-tested**  
Certified production control: VDE-REG.  
no.: B437  
UL-tested:  
UL File Number: E75770



**Temperature range**  
–40 °C to +100 °C, short-term up to  
+125 °C



# Connectors

Rectangular connectors

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## Technical Data



**Classification ETIM 5/6**  
ETIM 5.0/6.0 Class-ID: EC000437  
ETIM 5.0/6.0 Class-Description:  
Housing for industrial connectors



**Material**  
Housing: powder-coated zinc diecasting, grey  
Lever: zinc-plated steel  
Sealing: NBR  
Housing: grey thermoplastic, black  
Lever: zinc-plated steel  
Sealing: NBR



**Protection rating**  
IP 65 (latched)  
NEMA 250, UL50E: 12, 4 (latched)



**VDE-tested**  
Certified production control: VDE-REG.  
no.: B437  
UL-tested:  
UL File Number: E75770



**Temperature range**  
–40 °C to +100 °C, short-term up to  
+125 °C

## EPIC® H-A 3 MEGS +

EPIC® H-A 3 series installation housing, very compact design, side cable entry, for assembly of a rectangular connector.

### Benefits

- The EPIC® H-A 3 series comprises the smallest housings in the range of heavy-duty industrial connectors and ensures secure connections in the smallest of spaces.
- The panel-mount housing can be mated with many commercially available grommet housings.
- With lateral cable entry for organised cable routing and to prevent excessive cable bending.
- Easy installation on the device by screwing in and fixing with locknut.
- The arrow as a new design element on the housing surface can be easily felt and simplifies cable routing. The arrow as a new design element on the housing surface is easy to feel and simplifies mating in confined and possibly poorly visible application areas.

### Application ranges

- To protect the connector insert from environmental influences.
- For use with many EPIC® rectangular connector inserts.
- For power supply connection of devices and machines in various applications.
- Can withstand high environmental and mechanical loads.
- Suitable for outdoor use.



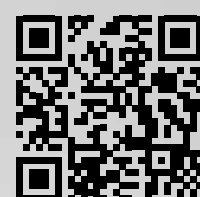
# Connectors

Solar connectors

NEW



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## EPIC® SOLAR 4 GEN2 M

**What is new?** The solar connector is now also available for conductor cross-sections up to 10 mm<sup>2</sup>.

### Benefits

- Particularly weather-resistant and durable thanks to high-quality materials and solid construction.
- Connectable with other systems on the market.
- Optimally suited for fully automated connector assembly.
- Self-locking cap nut and contact receptacle, each with haptic feedback, simplify assembly and ensure tamper resistance.
- Double snap-in hooks fix the crimp contact to the plug connection.
- Low contact resistance at the contact point between plug and socket for efficient power supply.
- Suitable for conductor cross-sections up to 10 mm<sup>2</sup> for overcoming long cable distances.
- With TÜV SÜD test mark.
- Article available in different packaging units.

### Application ranges

- For cabling solar modules, inverters and stand-alone systems.
- For modern, powerful photovoltaic systems up to 1500 V.
- For use with mating connector EPIC® SOLAR 4 GEN2 F (socket insert).
- Can be used with many ÖLFLEX® solar cables.
- Plugged connections have protection class IP 68 (1 m for 1 h).

## Technical Data



**Rated voltage (V)**  
1.5 kV



**Rated current (A)**  
50 A

Flammability  
UL94 V-0



**Material**  
PA Polyamid



**Protection rating**  
IP68 (1h/1m)



**Cycle of mechanical operation**  
100

**Protection class**  
II



**Temperature range**  
-40 °C to +85 °C

# Connectors

Solar connectors

NEW



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## EPIC® SOLAR 4 GEN2 F

**What is new?** The solar connector is now also available for conductor cross-sections up to 10 mm<sup>2</sup>.

### Benefits

- Particularly weather-resistant and durable thanks to high-quality materials and solid construction.
- Connectable with other systems on the market.
- Optimally suited for fully automated connector assembly.
- Self-locking cap nut and contact receptacle, each with haptic feedback, simplify assembly and ensure tamper resistance.
- Double snap-in hooks fix the crimp contact to the plug connection.
- Low contact resistance at the contact point between plug and socket for efficient power supply.
- Suitable for conductor cross-sections up to 10 mm<sup>2</sup> for overcoming long cable distances.
- With TÜV SÜD test mark.
- Article available in different packaging units.

### Application ranges

- For cabling solar modules, inverters and stand-alone systems.
- For modern, powerful photovoltaic systems up to 1500 V.
- For use with mating connector EPIC® SOLAR 4 GEN2 M (Pin insert).
- Can be used with many ÖLFLEX® solar cables.
- Plugged connections have protection class IP 68 (1 m for 1 h).

## Technical Data



**Rated voltage (V)**  
1.5 kV



**Rated current (A)**  
50 A

Flammability  
UL94 V-0



**Material**  
PA Polyamid



**Protection rating**  
IP68 (1h/1m)



**Cycle of mechanical operation**  
100

**Protection class**  
II



**Temperature range**  
-40 °C to +85 °C



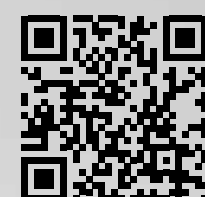
# Connectors

Solar connectors

NEW



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## EPIC® SOLAR 4 GEN2 Built-in plug M +

Solar connector (Pin insert) up to 1500 V DC, particularly weather-resistant, for front wall mounting on the inverter.

### Benefits

- Particularly weather-resistant and durable thanks to high-quality materials and solid construction.
- Connectable with other systems on the market.
- Double snap-in hooks fix the crimp contact to the plug connection.
- Low contact resistance at the contact point between plug and socket for efficient power supply.

### Application ranges

- For use on inverters or control cabinets (front wall mounting).
- For modern, powerful photovoltaic systems up to 1500 V.
- For use with solar connectors from the EPIC® SOLAR series (socket insert).
- Plugged connections have protection class IP 68 (1 m for 1 h).

## Technical Data



**Rated voltage (V)**  
1.5 kV

**Rated impulse voltage**  
16 kV



**Rated current (A)**  
50 A

**Flammability**  
UL94 V-0

**Contact resistance**  
< 5 mOhm



**Protection rating**  
IP68 (1h/1m)

**Protection class**  
II



**Temperature range**  
-40 °C to + 85 °C



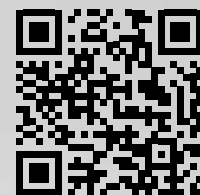
# Connectors

Solar connectors

NEW



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## EPIC® SOLAR 4 GEN2 Built-in plug F

Solar connector (socket insert) up to 1500 V DC, particularly weather-resistant, for front wall mounting on the inverter.

### Benefits

- Particularly weather-resistant and durable thanks to high-quality materials and solid construction.
- Connectable with other systems on the market.
- Double snap-in hooks fix the crimp contact to the plug connection.
- Low contact resistance at the contact point between plug and socket for efficient power supply.

### Application ranges

- For use on inverters or control cabinets (front wall mounting).
- For modern, powerful photovoltaic systems up to 1500 V.
- For use with solar connectors from the EPIC® SOLAR series (Pin insert).
- Plugged connections have protection class IP 68 (1 m for 1 h).

## Technical Data



**Rated voltage (V)**  
1.5 kV

**Rated impulse voltage**  
16 kV



**Rated current (A)**  
50 A

**Flammability**  
UL94 V-0

**Contact resistance**  
< 5 mOhm



**Protection rating**  
IP68 (1h/1m)

**Protection class**  
II



**Temperature range**  
-40 °C to + 85 °C



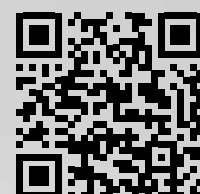
# Connectors

Circular connectors

NEW



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## EPIC® BATTERY M

High-voltage battery connector for energy storage systems (housing connector), protected against polarity reversal, UL-certified, IP 67, for front-side connection to the battery module.


### Benefits

- Device plug with contact protection for rated currents up to 350 A and voltages up to 1,500 V.
- Reliable locking system offers security against disconnection of the plug connection under load as well as flexible maintenance options.
- Mechanical coding of the connector face and colour coding of the housing prevent incorrect mating when connecting the battery (colour black for negative pole and red/orange for positive pole).
- Made of robust plastic (flammability class V-0 according to UL94 test method for the flammability of plastics).
- In the plugged-in state, protection class IP 67 can be achieved.
- With TÜV Rheinland test mark.
- UL certification according to technical data enables the product to be used in North America.


### Application ranges


- For the front-side connection of battery modules within energy storage systems.
- For use with a suitable cable connector.


## Technical Data


 **Rated voltage (V)**  
1500 V DC

**Flammability**  
UL94 V-0

 **Material**  
Polyamide

 **Cycle of mechanical operation**  
100

 **Certifications**  
UL: in preparation

 **Temperature range**  
-40 °C to +125 °C

# Connectors

Circular connectors

NEW



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## EPIC® BATTERY F

High-voltage battery connector for energy storage systems (cable connector), protected against polarity reversal, UL-certified, IP 67, quick plug-in with the housing connector.


### Benefits


- Cable connector for rated currents up to 350 A and voltages up to 1,500 V.
- Reliable locking system offers security against loosening of the plug connection under load as well as flexible maintenance options.
- Mechanical coding of the connector face and colour coding of the housing prevent mismatching when connecting batteries (black for negative pole and red/orange for positive pole).
- Can be rotated freely through 360° and is therefore ideal for flexible wiring with different cable outlets.
- Made of robust plastic (flammability class V-0 according to UL94 test method for the flammability of plastics).
- Can achieve protection class IP 67 when plugged in.
- With TÜV Rheinland test mark.
- UL certification according to technical data allows the product to be used in North America.
- Suitable for conductor cross-sections up to 120 mm².

### Application ranges

- For the front connection of battery modules within energy storage systems.
- For use with matching housing connector.


## Technical Data


 **Rated voltage (V)**  
1500 V DC


 **Pollution degree**  
3

**Flammability**  
UL94 V-0

 **Material**  
Polyamide

 **Cycle of mechanical operation**  
100

 **Certifications**  
UL: in preparation

 **Temperature range**  
-40 °C to +125 °C



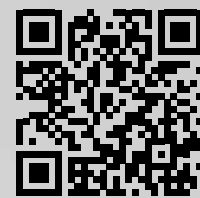
## Cable assemblies

Data cable assemblies

NEW



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## EPIC® SENSOR M12 flush-type

**What is new?** The built-in connector is now available in further variants and has been cost-optimised.

### Benefits

- Convenient connection solution for individual device concepts.
- With M16 thread for easy screwing into a housing with threaded borehole (including lock nut for through boreholes without thread).
- With ready-to-connect single cores for quick wiring within the housing.
- Mechanical coding of the connector face prevents mismatching with mating connectors.
- In the mated state, protection class IP 67 can be achieved.

### Application ranges

- Universally applicable at machine interfaces for many applications for data and signal transmission in the low-frequency range.
- For connecting devices to control cabinets or machine housings.
- Good oil and chemical resistance.

## Technical Data



**Classification ETIM 5/6**  
ETIM 5.0/6.0 Class-ID: EC002061  
ETIM 5.0/6.0 Class-Description:  
Sensor-actuator connector chassis



**Material**  
Contact: CuZn  
Contact surface: Au (gold)



**Protection rating**  
IP 67



**Ambient temperature (operation)**  
Plug/socket  
-25 °C to +85 °C

**Coding**  
A-standard



## Cable assemblies

Power and control cable assemblies

NEW



## EPIC® SOLAR 4 GEN2 Patch cable

Solar patch cable assembled on both sides, with durable plug connections, for connecting solar modules and strings in PV systems up to 1500 V.

### Benefits

- Cables assembled on both sides save time and eliminate the potential for errors during assembly on site. Professional conductor connection according to defined criteria ensures consistent product quality.
- Cross-linked insulation and sheath materials favour durability at high temperatures or under high current loads, ensure high dielectric strength and a high short-circuit temperature.
- Plug connection can be mated with other systems on the market.
- Low contact resistance at the contact point between plug and socket for efficient power supply.
- Available in cable lengths up to 10 m.

### Application ranges

- For modern, powerful photovoltaic systems up to 1500 V.
- For connecting solar modules and strings to each other and to inverters.
- For fixed installation and occasional movement, free-hanging if necessary.

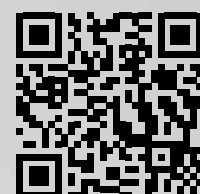
# Network and distribution components

Remote I/O devices

NEW



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## UNITRONIC® ACCESS SP08 IOL +

IO-Link master with single protocol, resistant to welding spatter, wide temperature range from –20 °C to +60 °C, high degree of protection IP 67 and IP 69K.

### Benefits

- Supports the Industrial Ethernet protocols PROFINET, EtherNET/IP, EtherCAT, Modbus TCP and CC-Link (article-dependent).
- IO-Link technology allows extended diagnostics of sensors and actuators through bidirectional communication, such as remote maintenance of devices.
- Worldwide standardised IO-Link technology supports all common communication protocols. Simplified commissioning and replacement of IO-Link devices thanks to automatic configuration and plug-and-play.
- Digital signal transmission allows the use of unshielded standard cables.
- Specially suitable for harsh environments thanks to protection class IP 67.
- Protection class IP 69K allows the use of high-pressure cleaners.

### Application ranges

- For transmitting input and output signals as well as IO-Link signals from sensors and actuators to an Industrial Ethernet or IoT protocol.
- For decentralised use at field level, outside the control cabinet.
- For use with UNITRONIC® SENSOR M12 cables and ETHERLINE® M12 patch cables.
- Metal housing is resistant to welding spatter.
- For operating temperatures from –20 °C to +60 °C.

## Technical Data

### IO-Link

Single protocol: PROFINET, EtherNet/IP, EtherCAT, Modbus or CC-Link IE

IoT-Protocol (REST API)



### Material

Housing: zinc alloy nickel-plated, silver  
Sealing material: FKM



### Power supply

24 V

### Connections

M12 x 8 (A-coded), Sensor/Actuator (2 Channels)

M12 x 2 (D-coded), Ethernet

M12 x 2 (L-coded), Power Supply



### Protection rating

IP 67

IP 69



### Temperature range

–20 °C to +60 °C

## Network and distribution components


Remote I/O devices




### Technical Data


**Multi protocol**  
PROFINET, EtherNet/IP, EtherCAT, Modbus and CC-Link IE


IoT-Protocols (OPC UA, MQTT, REST API, CoAP)

 **Material**  
Housing: zink alloy nickel-plated, silver  
Sealing material: FKM

 **Power supply**  
24 V

**Connections**  
M12 x 8 (A-coded), Sensor/Actuator (2 Channels)  
M12 x 2 (D-coded), Ethernet  
M12 x 2 (L-coded), Power Supply

 **Protection rating**  
IP 67  
IP 69

 **Temperature range**  
-40 °C to +70 °C

## UNITRONIC® ACCESS MP08 DIO

Digital module with multi-protocol, resistant to welding spatter, wide temperature range from -40 °C to +70 °C, high degree of protection IP 67 and IP 69K.

### Benefits

- Multiprotocol combines several Industrial Ethernet and IoT-based protocols in one. This reduces the number of different devices and increases flexibility.
- Multiprotocol enables a uniform and standardised system design and meets the requirements of international markets with just one device.
- Support for various Industrial Ethernet protocols reduces the variety of parts in the warehouse and simplifies maintenance.
- Digital signal transmission allows the use of unshielded standard cables.
- Especially suitable for harsh environments thanks to protection class IP 67.
- Protection class IP 69K allows the use of high-pressure cleaners.

### Application ranges

- For communication between decentralised sensors and actuators at field level and a PLC at control level.
- For decentralised use at field level, outside the control cabinet.
- For use with UNITRONIC® SENSOR M12 cables and ETHERLINE® M12 patch cables.
- Metal housing is resistant to welding spatter.
- For operating temperatures from -40 °C to +70 °C.



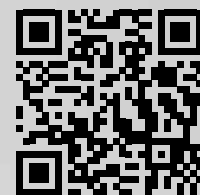
## Network and distribution components

Remote I/O devices

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## UNITRONIC® ACCESS HUB08 IOL +

IO-Link hub, resistant to welding spatter, wide temperature range from –40 °C to +70 °C, high degree of protection IP 67 and IP 69K.

### Benefits

- IO-Link technology allows extended diagnostics of sensors and actuators through bidirectional communication, such as remote maintenance of devices.
- Simplified commissioning and replacement of IO-Link devices thanks to automatic configuration and plug-and-play.
- Worldwide standardised IO-Link technology supports all common communication protocols.
- The power supply is via the IO-Link master and does not require separate cabling and power supply units, which saves costs.
- Digital signal transmission allows the use of unshielded standard cables.
- Especially suitable for harsh environments thanks to protection class IP 67.
- Protection class IP 69K allows the use of high-pressure cleaners.

### Application ranges

- For connecting digital sensors and actuators to an IO-Link master.
- For decentralised use at field level, outside the control cabinet. For use with UNITRONIC® SENSOR M12 cables.
- Metal housing is resistant to welding spatter.
- For operating temperatures from –40 °C to +70 °C.

## Technical Data

### IO-Link



#### Material

Housing: zinc alloy nickel-plated, silver  
Sealing material: FKM



#### Power supply

24 V

### Connections

M12 x 8 (A-coded), Sensor/Actuator (2 Channels)  
M12 x 1 (A-coded), IO-Link



#### Protection rating

IP 67  
IP 69



#### Temperature range

–40 °C to +70 °C

## Network and distribution components

Remote I/O devices

NEW



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## Technical Data

### IO-Link

#### Multi protocol

PROFINET, EtherNet/IP, EtherCAT, Modbus and CC-Link IE

IoT-Protocols (OPC UA, MQTT, REST API, CoAP)



#### Material

Housing: zinc alloy nickel-plated, silver  
Sealing material: FKM



#### Power supply

24 V

### Connections

M12 x 8 (A-coded), Sensor/Actuator (2 Channels)

M12 x 2 (D-coded), Ethernet

M12 x 2 (L-coded), Power Supply



#### Protection rating

IP 67

IP 69



#### Temperature range

–40 °C to +70 °C

## UNITRONIC® ACCESS MP08 IOL

IO-Link master with multi-protocol, resistant to welding spatter, wide temperature range from –40 °C to +70 °C, high degree of protection IP 67 and IP 69K.

### Benefits

- Multiprotocol combines several Industrial Ethernet and IoT-based protocols in one. This reduces the number of different devices and increases flexibility.
- Multiprotocol enables a uniform and standardised system design and meets the requirements of international markets with just one device.
- Support for various Industrial Ethernet protocols reduces part diversity in the warehouse and simplifies maintenance.
- IO-Link technology allows extended diagnostics of sensors and actuators through bidirectional communication, such as remote maintenance of devices.
- Worldwide standardised IO-Link technology supports all common communication protocols. Globally standardised IO-Link technology supports all common communication protocols.
- Simplified commissioning and replacement of IO-Link devices thanks to automatic configuration and plug-and-play.
- Digital signal transmission allows the use of unshielded standard cables.
- Especially suitable for harsh environments thanks to protection class IP 67.
- Protection class IP 69K allows the use of high-pressure cleaners.

### Application ranges

- For transmitting input and output signals as well as IO-Link signals from sensors and actuators in Industrial Ethernet or IoT protocols.
- For decentralised use at field level, outside the control cabinet.
- For use with UNITRONIC® SENSOR M12 cables and ETHERLINE® M12 patch cables.
- Metal housing is resistant to welding spatter.
- For operating temperatures from –40 °C to +70 °C.

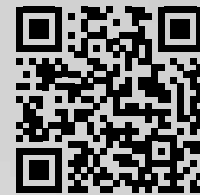
## Tools and accessories

Tools

NEW



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information available online



## EPIC® RJ45 hand crimping pliers

Hand crimping pliers for crimpable RJ45 plug connections, adjustable crimping strength, ergonomic PP handles.

### Benefits

- Sturdy and handy design.
- With rotary knob for individual adjustment of the crimp strength.
- Locking mechanism provides protection against unintentional opening.

### Application ranges

- For making a secure crimping connection between an RJ45 plug connector and a four-pair data cable.
- For use with the crimpable data connectors EPIC® DATA RJ45 crimp and RJ45 Hirose.

## Tools and accessories

Accessories



## Universal attachment for cobots

Detachable universal attachment for collaborative robots, for attaching hoses and cables, quick and easy installation.


### Benefits


- Quick and easy installation thanks to the soft TPE material of the universal fastening and flexible Velcro straps.
- Cables and hoses can be detached and attached again.
- The universal fastening is suitable for all cylindrical bodies with an outer diameter of 50 mm to 120 mm.
- Separate fastening of two cables or hoses with different outer diameters is possible.

### Application ranges


- For attaching cables and hoses to collaborative robots (cobots) in the course of functional expansion (end-of-arm tooling).
- For use with SILVYN® protective conduits.
- For use with ÖLFLEX® robotic cables.
- TPE material is resistant to many acids and alkalis and UV-resistant.
- For operating temperatures from –40 °C to +80 °C.

## Technical Data

 **Classification ETIM 5/6**  
ETIM 5.0/6.0 Class-ID: EC000127

 **Colour delivered**  
Black

 **Material**  
TPE

 **Temperature range**  
–40 °C to +80 °C





LEGEND

NEW PRODUCT



PRODUCT EXTENSION



PRODUCT CHARACTERISTICS

 Suitable for outdoor use	 Maximum vibration protection	 Clean room	 Temperature-resistant
 Good chemical resistance	 Mechanical resistance	 Robust	 Torsion-resistant
 Flame-retardant	 Assembly time	 Acid-resistant	 Torsion load
 Wide clamping range	 Low weight	 Reliability	 UV-resistant
 Halogen-free	 Oil-resistant	 Integrated SKINTOP® cable gland	 Waterproof
 Heat-resistant	 Optimum strain relief	 Voltage	 Variety of approval certifications
 Cold-resistant	 Space requirement	 Connector with standard housing unit	 Submersible use
 Corrosion-resistant	 Cable chain	 Interference signals	

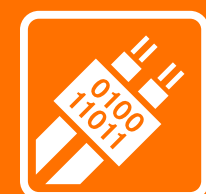
**Please note:**  
The purpose of the icons is to provide you with a quick overview and a rough indication of the product features to which the corresponding information relates. You can find details of product characteristics in the “technical data” sections on the product pages.



**ÖLFLEX®**  
Power and control cables



**EPIC®**  
Industrial connectors



**UNITRONIC®**  
Data communication systems



**SKINTOP®**  
Cable glands



**ETHERLINE®**  
Data communication systems  
for ETHERNET technology



**SILVYN®**  
Protective cable conduit systems  
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**HITRONIC®**  
Optical transmission systems



**FLEXIMARK®**  
Marking systems

Note: A detailed article list is available online or  
from your contact person.



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