

|                           |                                           |                                                                                     |
|---------------------------|-------------------------------------------|-------------------------------------------------------------------------------------|
| 2172335                   | <b>DATA SHEET</b>                         |  |
| Valid from:<br>01.12.2021 | <b>IE-6A-M12X-S-(L*)-P-4-26-7-M12XF-S</b> |                                                                                     |

## Description

- Industrial Ethernet patchcord Cat.6<sub>A</sub>, shielded
- Straight M12-jack, x-coded and straight M12-plug, x-coded
- Based on ETHERLINE® Cat.7 FLEX (2170934)



## General characteristics

|                                |                                                   |
|--------------------------------|---------------------------------------------------|
| Connection method, connector   | M12-jack, x-coded<br>M12-plug, x-coded            |
| Number of pins                 | 8                                                 |
| Ambient temperature            | -30°C to +90°C (-22°F to 194°F)                   |
| Degree of protection           | IP 65, IP 67 (M12, plugged and locked)            |
| Shielding                      | Shielded                                          |
| Tightening torque              | 1.0 Nm (M12-connector)<br>2.0 Nm (M12-flange nut) |
| Colour coding (pin assignment) | TIA/EIA-568-B                                     |
| Conformity                     | RoHS conform<br>REACH conform<br>LABS free        |

## Variation

Data sheet also valid for variant lengths. Other lengths on request.

| Article | Description                       | Length (L*) [m] |
|---------|-----------------------------------|-----------------|
| 2172335 | IE-6A-M12X-S-0,5-P-4-26-7-M12XF-S | 0.5             |
| 2172336 | IE-6A-M12X-S-1-P-4-26-7-M12XF-S   | 1               |
| 2172337 | IE-6A-M12X-S-2-P-4-26-7-M12XF-S   | 2               |
| 2172338 | IE-6A-M12X-S-3-P-4-26-7-M12XF-S   | 3               |
| 2172339 | IE-6A-M12X-S-5-P-4-26-7-M12XF-S   | 5               |
| 2172340 | IE-6A-M12X-S-7-P-4-26-7-M12XF-S   | 7               |
| 2172341 | IE-6A-M12X-S-10-P-4-26-7-M12XF-S  | 10              |
| 2172342 | IE-6A-M12X-S-15-P-4-26-7-M12XF-S  | 15              |
| 2172343 | IE-6A-M12X-S-20-P-4-26-7-M12XF-S  | 20              |

## Electrical properties

|                        |                             |
|------------------------|-----------------------------|
| Rated voltage          | 50 VAC / 60 VDC             |
| Rated current at 40 °C | 0.5 A                       |
| Pollution degree       | 3 (M12, plugged and locked) |

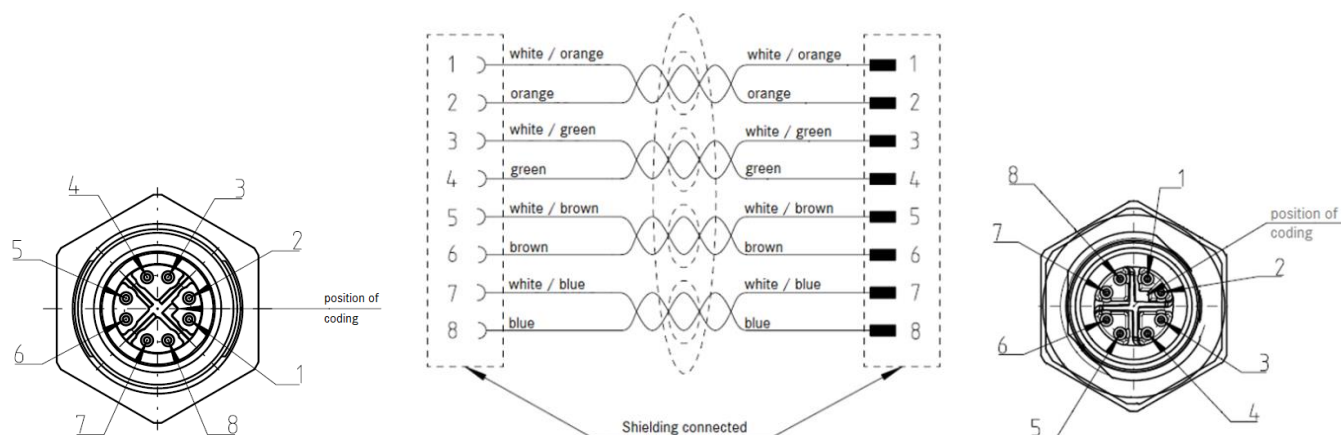
## Transmission characteristics

|                               |                |
|-------------------------------|----------------|
| Category (acc. ISO/IEC 11801) | 6 <sub>A</sub> |
|-------------------------------|----------------|

|                                                 |                                      |             |
|-------------------------------------------------|--------------------------------------|-------------|
| Creator: FELI1/FEJA1/PDP<br>Released: IVSE1/PDP | Document: DB2172335EN<br>Version: 04 | Page 1 of 4 |
|-------------------------------------------------|--------------------------------------|-------------|

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|---------------------------|-------------------------------------------|-------------------------------------------------------------------------------------|
| 2172335                   | <b>DATA SHEET</b>                         |  |
| Valid from:<br>01.12.2021 | <b>IE-6A-M12X-S-(L*)-P-4-26-7-M12XF-S</b> |                                                                                     |

## Connector pin assignment



## Mechanical properties

### M12-jack

Flammability class according to UL 94

Contact, material  
Contact carrier, material  
Housing, material  
Handle, material  
Seal outer, material  
Seal inner, material  
Nut, material

TPU → HB  
NBR, FPM/FKM → none  
CuNi, gold plated  
TPU, green  
Cu, nickel plated  
TPU, black  
NBR, black  
FPM/FKM, red  
Cu, nickel plated

### M12-plug

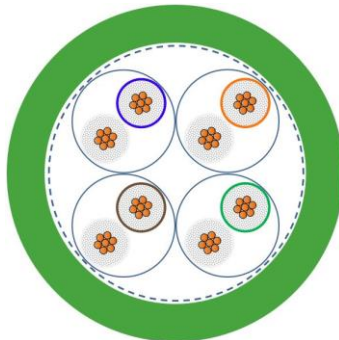
Flammability class according to UL 94

Contact, material  
Contact carrier, material  
Housing, material  
Knurl, material  
Handle, material

TPU → HB  
CuNi, gold plated  
TPU, nature  
Cu, vernickelt  
Cu, nickel plated  
TPU, black

|                           |                                           |                                                                                     |
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### Cable (Lapp article number: 2170934)



#### Design

|                          |                                                                                                                                             |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| Certification            | E63634 cRUus AWM Style 21238 80°C 600V I/II A/B acc. to UL 758 & CSA C22.2 No.210                                                           |
| Conductor                | stranded bare copper<br>26/7 AWG                                                                                                            |
| Insulation               | polyolefin (foamed)<br>insulation-diameter: ca. 1.0 mm                                                                                      |
| Core identification code | pair 1: white/blue, pair 2: white/orange, pair 3: white/green, pair 4: white/brown<br>(colored ring marking on the white cores is optional) |
| Stranding                | 2 cores stranded to pair, 4 pairs stranded to bundle                                                                                        |
| Pair screen              | plastic laminated aluminium foil (overlapping)                                                                                              |
| Screen                   | braid of tinned copper wire (coverage ca. 70 %)                                                                                             |
| Outer sheath             | PUR<br>green, similar to RAL 6018<br>outer diameter: ca. 6.4 mm                                                                             |

#### Electrical properties at 20°C

|                           |                                          |
|---------------------------|------------------------------------------|
| Loop resistance           | $\leq 29 \Omega / 100 \text{ m}$         |
| Insulation resistance     | min. 5 G $\Omega$ x km                   |
| Mutual capacitance        | nom. 46 nF/km                            |
| Characteristic impedance  | 100 $\Omega$ acc. to IEC 61156-6         |
| Maximum operating voltage | 100 V (not for power applications)       |
| Test voltage              | core/core: 2000 V<br>core/screen: 2000 V |

#### Mechanical and thermal properties

|                        |                                                                                        |
|------------------------|----------------------------------------------------------------------------------------|
| Minimum bending radius | fixed: 4 × outer diameter<br>occasional flexing: 10 × outer diameter                   |
| Temperature range      | fixed: -50 °C up to +80 °C<br>occasional flexing: -40 °C up to +80 °C<br>UL/CSA: 80 °C |
| Flammability           | flame retardant acc. to IEC 60332-1-2 resp. EN 60332-1-2<br>HFT acc. to UL 1581 §1090  |
| Halogen free           | acc. to VDE 0472-815                                                                   |
| UV resistance          | acc. to ISO 4892-2, method A                                                           |
| Oil resistance         | acc. to EN 50363-10-2                                                                  |

|                                                 |                                      |             |
|-------------------------------------------------|--------------------------------------|-------------|
| Creator: FELI1/FEJA1/PDP<br>Released: IVSE1/PDP | Document: DB2172335EN<br>Version: 04 | Page 3 of 4 |
|-------------------------------------------------|--------------------------------------|-------------|

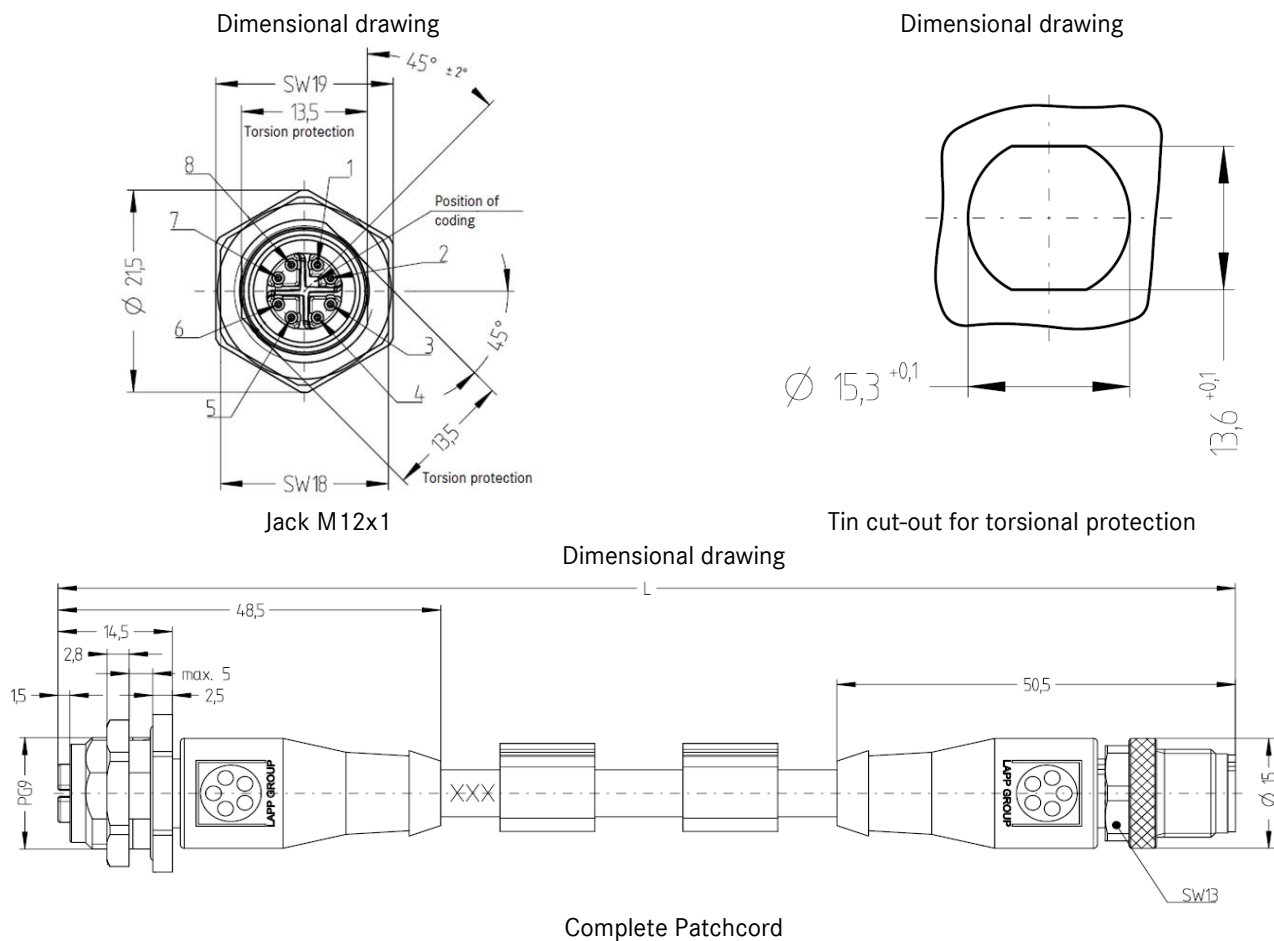
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## Standards / Approvals

Product standard, M12-connector  
Generic cabling for customer premises – General requirements

IEC 61076-2-109  
DIN EN 50173-1  
ISO/IEC 11801-1

## Technical drawing



## Certification

Certified acc. to ECE R118

## Application range

Automation, industrial machinery and plant engineering

## Note

Photographs are not true to scale and do not represent detailed images of the respective products.

|                                                 |                                      |             |
|-------------------------------------------------|--------------------------------------|-------------|
| Creator: FELI1/FEJA1/PDP<br>Released: IVSE1/PDP | Document: DB2172335EN<br>Version: 04 | Page 4 of 4 |
|-------------------------------------------------|--------------------------------------|-------------|