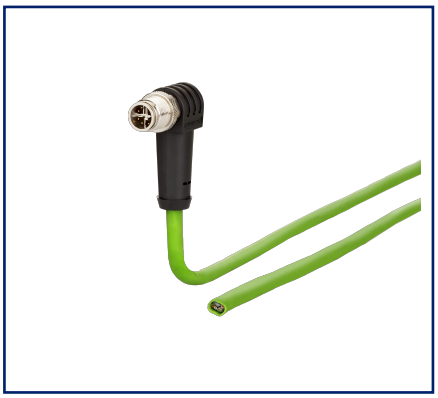
# Data sheet

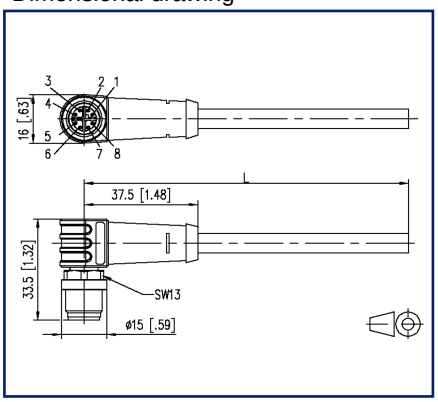
## M12 Industrial Ethernet cable, X-coded, 5.0 m, M12 plug angled - free line end, coding at 135°, PUR

**P/N 142M2XB0050**
**EAN 4251394608846**
2026/09/04
Version: K

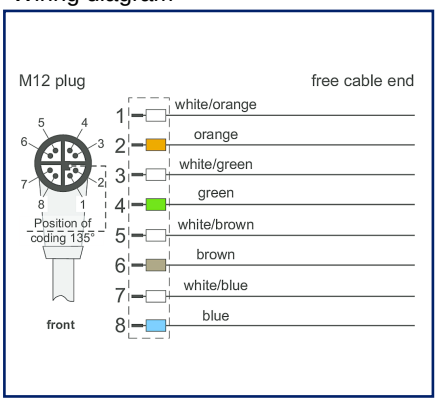
## Illustrations



Dimensional drawing




Wiring diagram




See enlarged drawings at the end of document

## Product specification

Shielded PUR cable for safe and industrial data transmission in automation and fieldbus technology. The cable meets the requirements of ULStyle 20963 and complies with Cat7 (electrical properties based on EN50288-4-2). Materials and design allow increased mechanical stress (abrasion, bending, vibration, etc.) of the cable. Special properties: UL style 20963, seawater resistant, recyclable, LABS free, RoHs compliant, acid and alkali resistant, UV resistant, hydrolysis resistant, halogen free, oil resistant, high flexibility, no corrosive gases, microbe resistant, no fire propagation.

- Standard variants: 1.0 m, 2.0 m, 5.0 m, 10.0 m.
- Other cable lengths on request.

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## Technical Data

| General Data | |
|---|---|
| Fields of application | Industrial Ethernet<br>harsh environment |
| Design | Ethernet-Connection cable |
| Shielding | shielded |
| Transmission technology | Copper |
| Cable Type | S/FTP |
| Number of twisting elements | 4 |
| Twisting element | Pair |
| Color coding fiber/ wire(s) | white/orange, orange, white/green, green, white/brown, brown, white/blue, blue |
| Color | green |
| Dimensions | |
| Dimension - Interface 1 (L x W x H) | 33.5 mm x 15 mm x 45 mm |
| Dimension - Interface 1 (L x W x H) | 1.319 in. x 0.591 in. x 1.772 in. |
| Cable length (m) | 5 m |
| Labeling option | identification label carrier |

| Transmission characteristics | |
|---|---|
| Category (ISO) | $6_A$ |

| Connections/interfaces | |
|---|---|
| Connector technology interface 1 | M12-plug angled |
| Connector technology interface 2 | free line end |
| Coding interface 1 | X-coded |
| Number of positions/contacts interface 1 | 8 |
| Termination data, stranded wire (min. - max.) | |
| Conductor cross section, stranded wire | AWG 26/7 |
| Conductor diameter, stranded wire (bare copper) | 0.48 mm |
| Conductor diameter, stranded wire (bare copper) | 0.019 in. |
| Cable sheath diameter (min. - max.) | |
| Cable sheath diameter | 6.4 mm |
| Cable sheath diameter | 0.236 in. |

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| | |
|---|---|
| **Electrical characteristics** | |
| Current carrying capacity | 0.5 A at 40 °C |
| Rated voltage | 60 V DC |
| Insulation resistance | min. 100 MOhm |
| **Mechanical data** | |
| Bending radius without load | min. 64 mm |
| Maximum operating bending radius | 64 mm |
| Maximum operating bending radius | 2.52 in. |
| Maximum installation load | 32 mm |
| Maximum installation load | 1.26 in. |
| Shielding braid coverage | 70 % |
| **Materials and material properties** | |
| Cable | |
| Material - Conductor | Cu (copper) |
| Material - Conductor Insulation | Polyethylene |
| Material - Cable jacket | PUR |
| Flame retardancy | yes |
| Interface 1 | |
| Material - Body interface 1 | Plastics |
| Material - Contact interface 1 | CuZnPb (brass) |
| Material - Contact finish interface 1 | Au (gold) |
| Material - Contact carriers interface 1 | Plastics |
| Material - Union nut interface 1 | CuZnPb (brass) |
| Material - Union nut finish interface 1 | Ni (nickel) |
| Material - Pair shield | plastic film |
| Material - Pair shield finish | Al (Aluminium) |
| Material - Main shield | Cu (copper) braid |
| Material - Main shield finish | Sn |
| Oil resistance | yes |
| UV-resistance | yes |
| RoHS | compliant |

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| | |
|---|---|
| **Environmental conditions** | |
| Temperature (min. - max.) | |
| Temperature - Operating °C | -40 °C - 80 °C |
| Temperature - Operating °F | -40 °F - 176 °F |
| Particulate ingress interface 1 | IP6X when plugged in |
| Liquid ingress/immersion interface 1 | IPX5, IPX7 when plugged in |
| Pollution degree interface 1 | 2 |
| **Approvals** | |
| UL listed (file no.) | DUXR.E178484 |
| **Standards/Regulations** | |
| Generic cabling systems | |
| General requirements | ISO/IEC 11801-1 \| DIN EN 50173-1 |
| Profinet | yes |
| Connectors for electronic equipment | |
| Free and fixed connectors | IEC 60603-7-51 |
| circular connector | DIN EN 61076-2-109 |
| Multi-element metallic cables used in analogue and digital communication and control | DIN EN 50288-4-2 |
| Test for vertical flame propagation for a single insulated wire or cable | IEC 60332-1-2 |
| Measurement of smoke density of cables burning | IEC 61034 |
| Determination of the halogen acid gas content | IEC 60754-1 |
| Insulating and sheathing materials of cables and insulated wire - General test methods | DIN EN 60811-2-1 |
| Copper and copper alloys - Drawn round copper wire for the production of electrical conductors | DIN EN 13602 Cu-ETP-A... \| DIN EN 13602 Cu-ETP-A...-B |
| **Classifications** | |
| ETIM 7.0 | EC002599 |
| ETIM 8.0 | EC002599 |
| ETIM 9.0 | EC002599 |
| ETIM 10.0 | EC002599 |

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### Packing details

| | |
|---|---|
| Type of packaging | 1 pc(s) / plastic bag |

### Application note

This product is a standard product of METZ CONNECT. METZ CONNECT is not aware of the specific intended use of the goods by the Customer or any customers of the Customer. The Customer guarantees that it has fully and sufficiently tested the use of the goods and any product modifications, product changes or product enhancements with regard to the specific intended use in accordance with the state of the art or in any other way.

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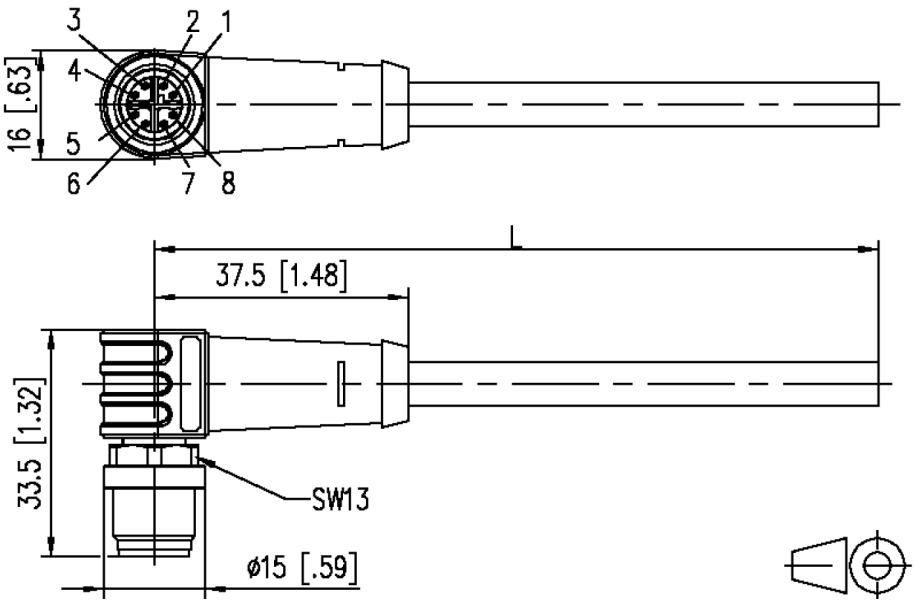
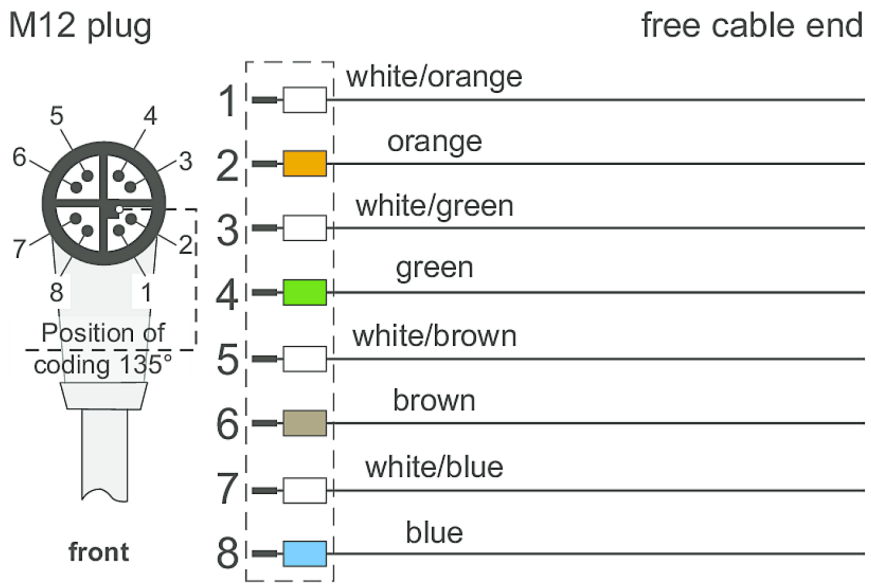
## Illustrations

Dimensional drawing




Wiring diagram

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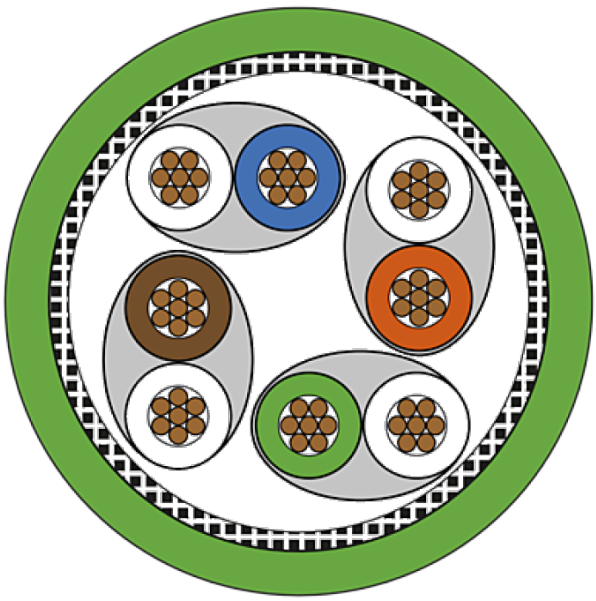
Principle diagram



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