

## Data sheet

**M12 Industrial Ethernet cable, X-coded, 1.0 m,  
M12 jack straight - free line end, PUR**

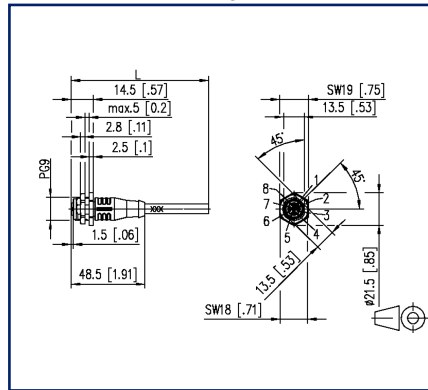
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P/N  
142M2X20010  
EAN 4250184199403  
2023/05/08  
Version: AS

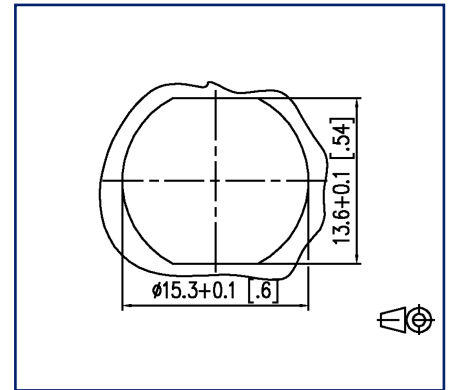
### Illustrations



Dimensional drawing



Cut-out



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 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)	48.5 mm x 21.5 mm x 21.5 mm
Dimension - Interface 1 (L x W x H)	1.909 in. x 0.846 in. x 0.846 in.
Cable length (m)	1 m
Cable length (ft)	3.28 ft
Labeling option	identification label carrier

#### Transmission characteristics

Category (ISO)	6 <sub>A</sub>
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#### Connections/interfaces

Connector technology interface 1	M12-jack
Connector technology interface 2	free line end
Coding interface 1	X-coded
Coding interface 2	X-coded
Number of positions/contacts interface 1	8
Number of positions/contacts interface 2	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.

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### Connections/interfaces

Cable sheath diameter (min. - max.)

Cable sheath diameter 6.4 mm

Cable sheath diameter 0.236 in.

### Electrical characteristics

Current carrying capacity 0.5 A at 40 °C

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

Material - Conductor Cu (copper)

Material - Conductor Insulation Polyethylene

Material - Cable jacket PUR

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 (tin)

Flame retardancy yes

Halogen free yes

Oil resistance yes

UV-resistance yes

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#### Materials and material properties

RoHS compliant

#### Environmental conditions

Temperature (min. - max.)

Temperature - Operating °C -30 °C - 90 °C

Temperature - Operating °F -22 °F - 194 °F

Particulate ingress interface 1 IP6X when plugged in

Liquid ingress/immersion interface 1 IPX7 when plugged in

Pollution degree interface 1 3

#### Approvals

UL listed (file no.) Approval pending

#### 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

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### Classifications

ETIM 5.0	EC002599
ETIM 6.0	EC002599
ETIM 7.0	EC002599
ETIM 8.0	EC002599
ETIM 9.0	EC002599

### Packing details

Type of packaging	1 pc(s) / plastic bag
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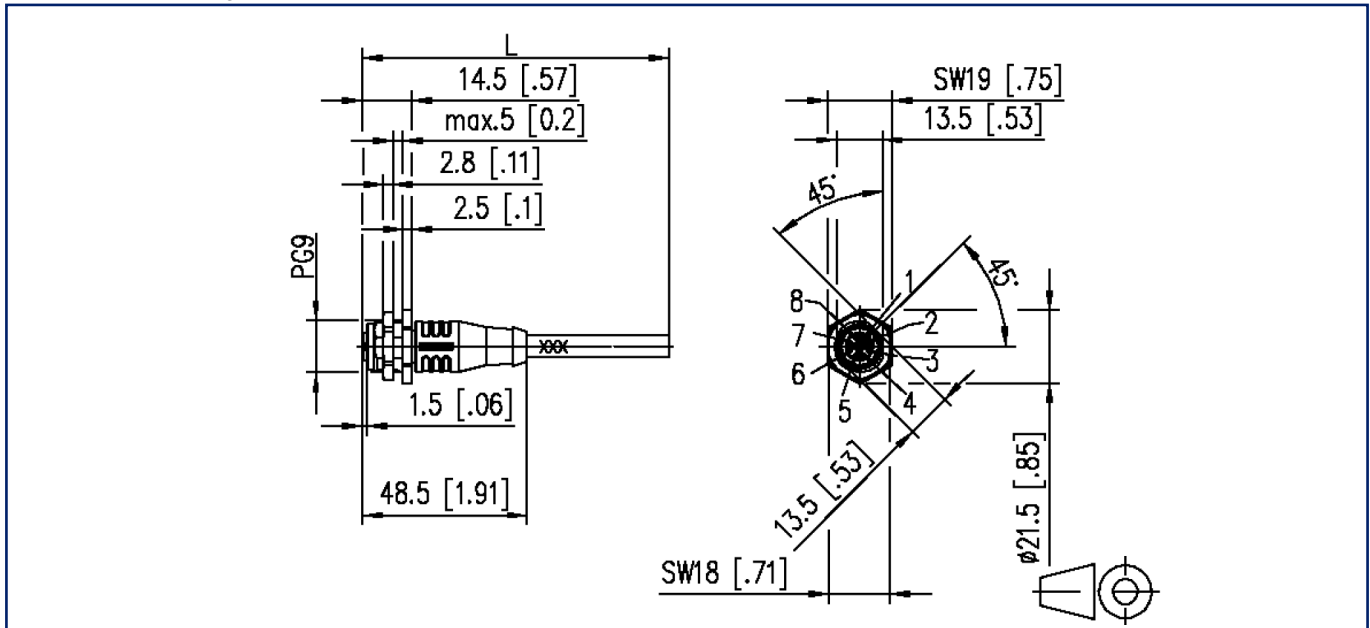
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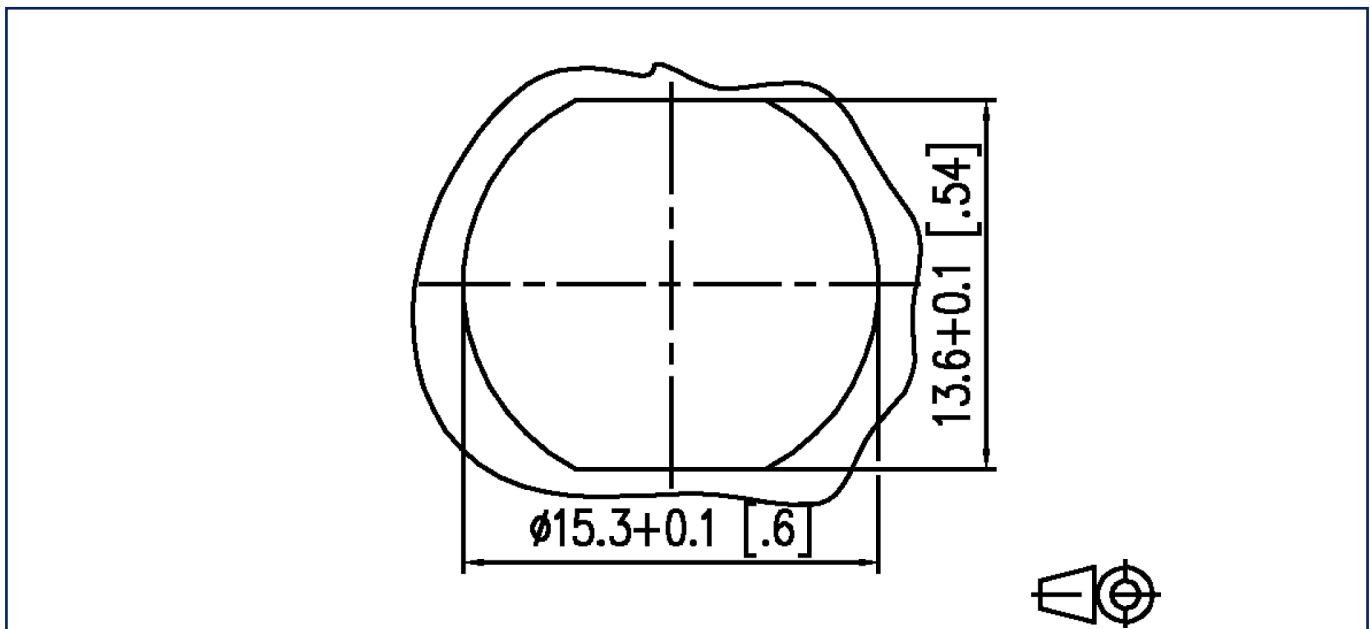
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Dimensional drawing



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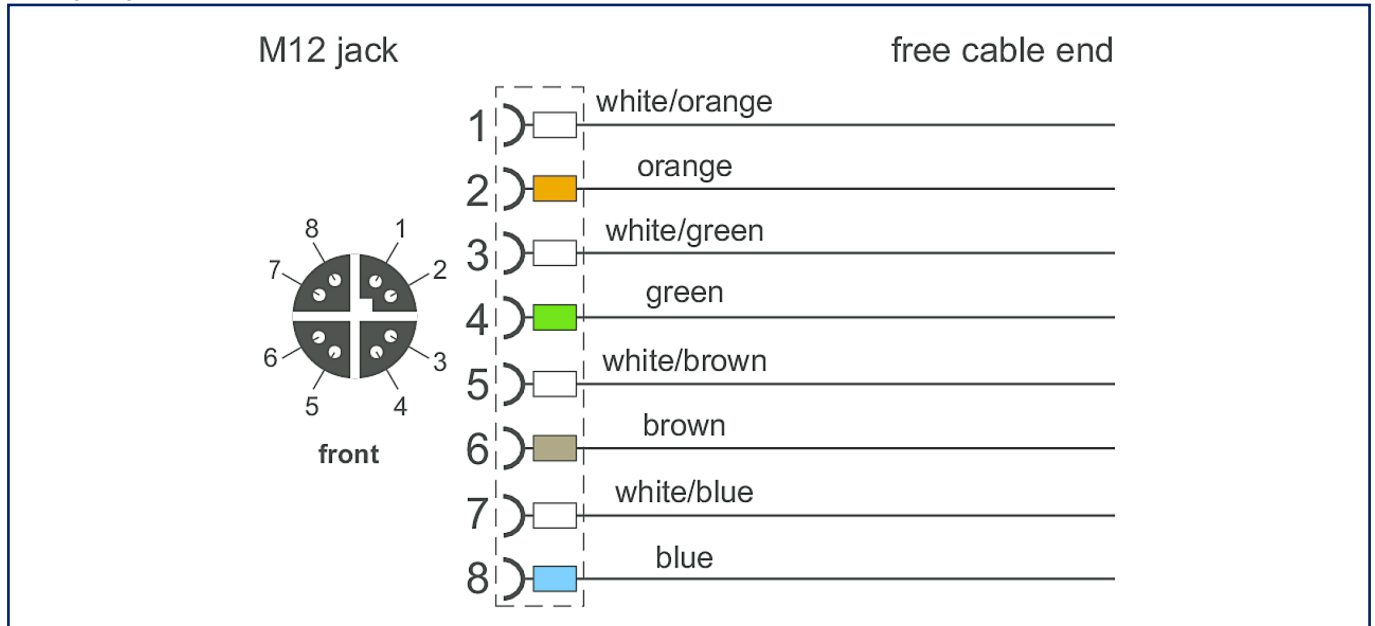
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Wiring diagram



Principle diagram

