

Data sheet

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**M12 Industrial Ethernet cable, X-coded, 5.0 m,
M12 jack straight - free line end,
without flange, PUR**

P/N

142M2X20050

EAN 4250184199427

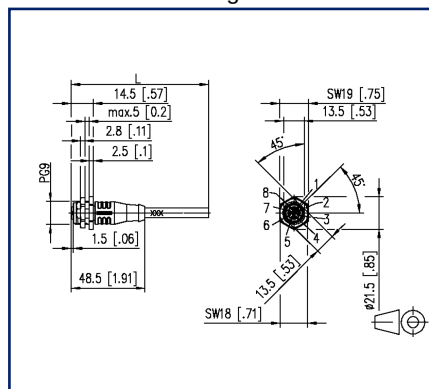
2025/07/07

Version: AY

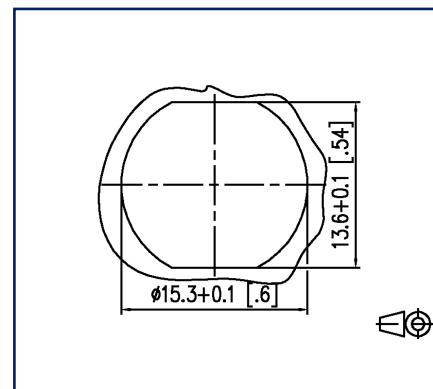
Illustrations



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)	5 m
Cable length (ft)	16.4 ft
Labeling option	identification label carrier

Transmission characteristics

Category (ISO)	6 _A
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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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Technical Data
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

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

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

Flame retardancy yes

Halogen free yes

Oil resistance yes



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Materials and material properties

UV-resistance	yes
RoHS	compliant

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	IPX7 when plugged in
Pollution degree interface 1	3

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



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Technical Data**Classifications**

ETIM 7.0	EC002599
ETIM 8.0	EC002599
ETIM 9.0	EC002599
ETIM 10.0	EC002599

Packing details

Type of packaging	1 pc(s) / plastic bag
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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. At METZ CONNECT's request, the Customer shall submit and make available meaningful evidence (e.g. test and laboratory protocols, certifications, etc.).



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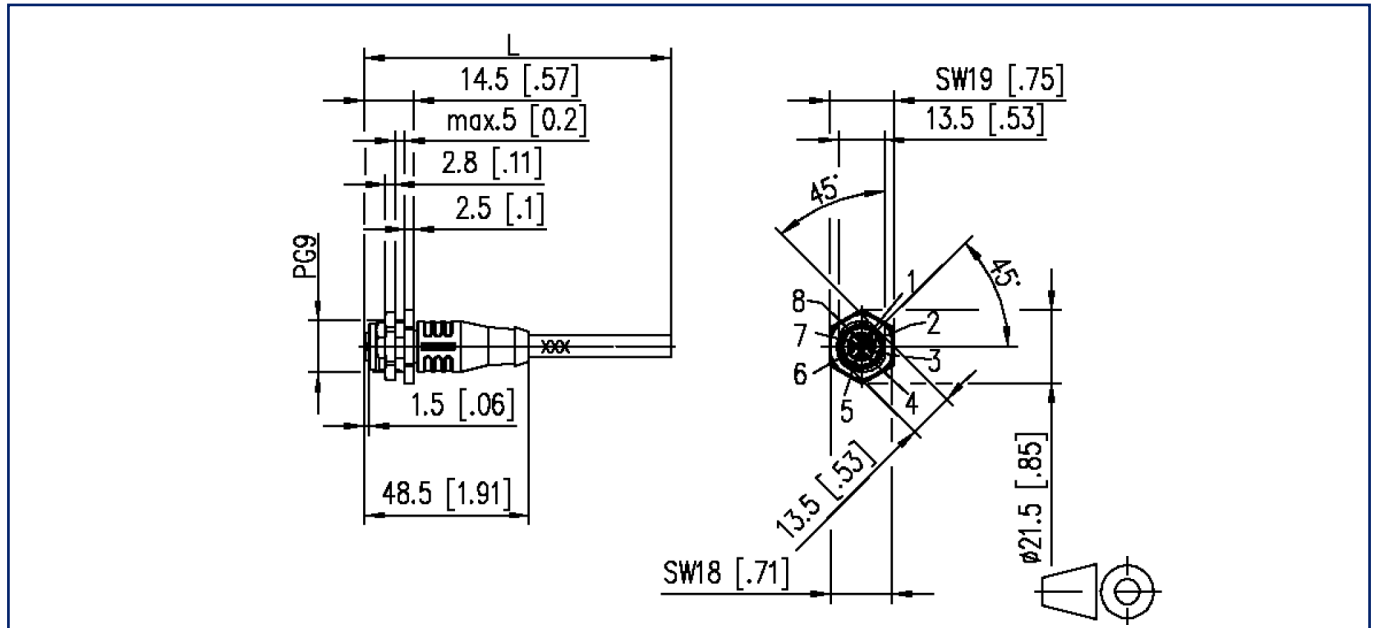
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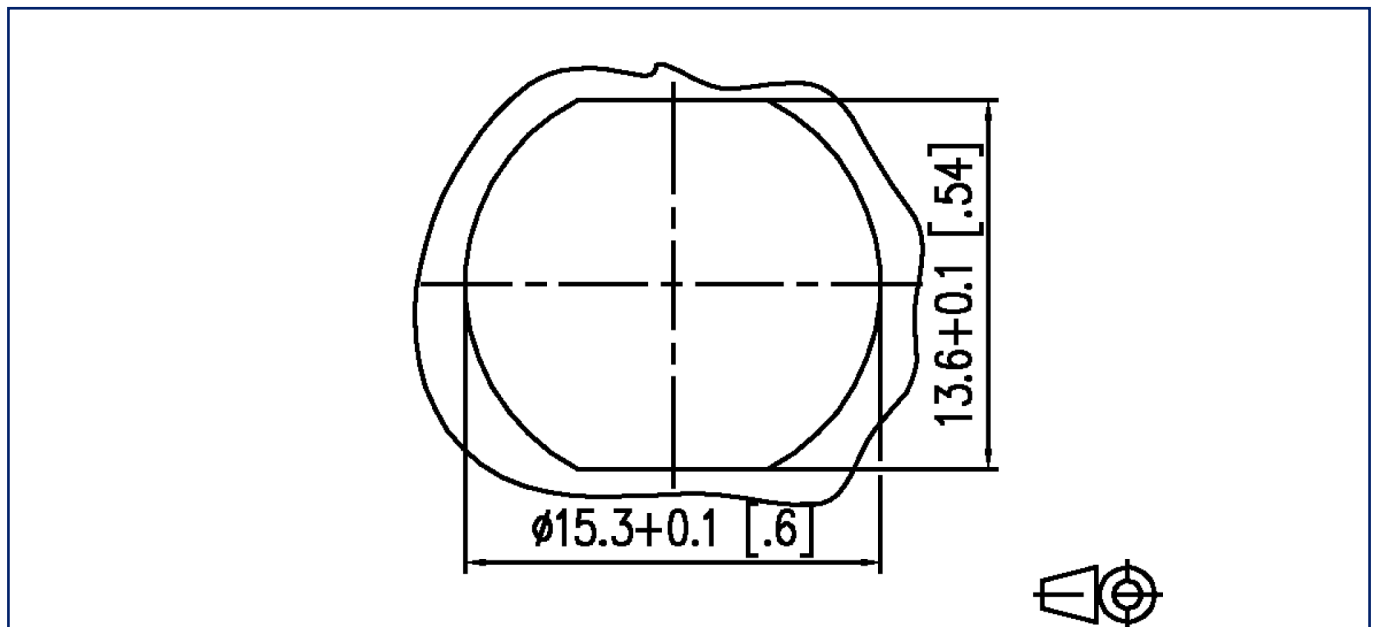
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Dimensional drawing



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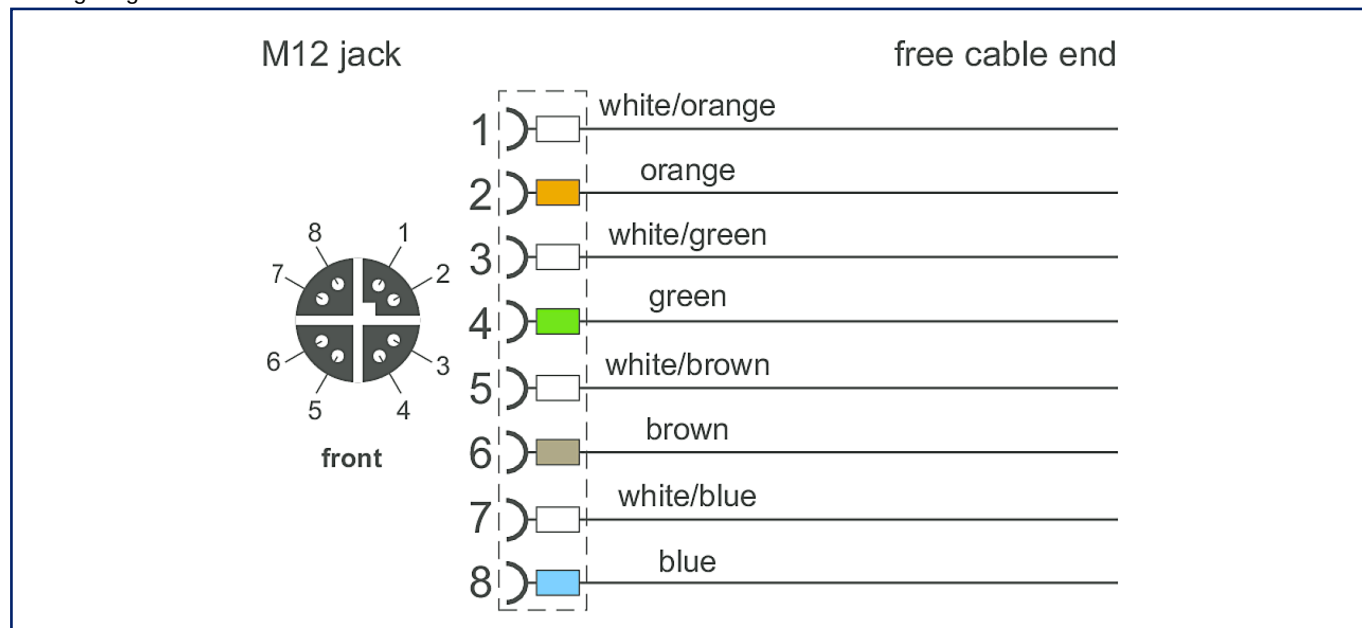
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Illustrations

Wiring diagram



Principle diagram

