

Data sheet

Connection line M12 plug straight - M12 plug angled 4-pole, D-coded 1.0 m

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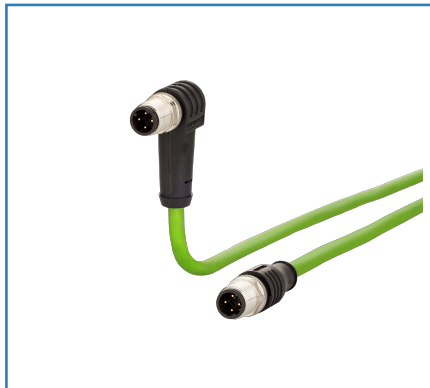
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142M1D19010

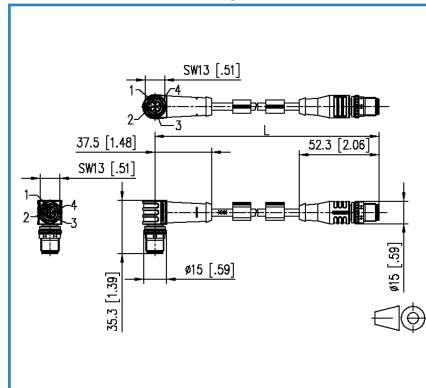
EAN 4250184175018

2018-13-02

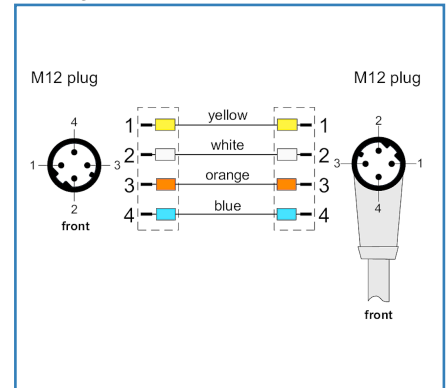
Illustrations



Dimensional drawing



Wiring



See enlarged drawings at the end of document

Product specification

- shielded M12 Ethernet connection line
 - Cat.5e, 4-pole, D-coded (IEC 61076-2-101)
 - side 1: M12-plug, straight
 - side 2: M12-plug, angled
 - extrusion-coated cable on M12 connectors
 - 2x2xAWG22/7, tinned with plastic foil
 - inner sheath FRNC, aluminum-coated plastic foil
 - overall shield: tinned copper braid, approx. 85% covered
 - Profinet (WS-GE-BL-OR) wiring
 - green cable, PUR
-
- 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

Design

Ethernet-Connection line

Shielding

shielded

Transmission technology

Copper

Cable Type

SF/FTP

Number of twisting elements

2

Twisting element

Pair

Wiring

Profinet

Color coding fiber/ wire(s)

yellow, white, orange, blue

Color

green

Dimensions

Dimension - Interface 1 (L x W x H)

52.30 x 15.00 x 15.00 mm

Dimension - Interface 1 (L x W x H)

2.059 x 0.591 x 0.591 in.

Dimension - Interface 2 (L x W x H)

35.30 x 15.00 x 45.00 mm

Dimension - Interface 2 (L x W x H)

1.39 x 0.591 x 1.772 in.

Cable length (m)

1.00 m

Labeling option

identification label carrier

Transmission characteristics

Category (ISO)

5e

Transmission rate up to 100 MBit (Fast Ethernet)

IEEE 802.3u

Connections/interfaces

Connector technology interface 1

M12-plug

Connector technology interface 2

M12-plug

Coding interface 1

data systems technology tool

Coding interface 2

data systems technology tool

Number of positions/contacts interface 1

4

Number of positions/contacts interface 2

4



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Technical Data

Connections/interfaces

Termination data, stranded wire (min. - max.)

Conductor cross section, stranded wire	AWG 22/7
Conductor diameter, stranded wire (bare copper)	0.75 mm
Conductor diameter, stranded wire (bare copper)	0.03 in.

Cable sheath diameter (min. - max.)

Cable sheath diameter	6.50 mm
Cable sheath diameter	0.236 in.

Electrical characteristics

Current carrying capacity	max. 4 A
Through resistance	max. 5 mOhm
Insulation resistance	min. 100 MOhm

Mechanical characteristics

Life - Number of mating cycles	min. 100
Maximum operating bending radius	26 mm
Maximum operating bending radius	1.024 in.
Maximum installation load	52 mm
Maximum installation load	2.047 in.
Shielding braid coverage	85 %

Materials and material properties

Material - Conductor	Cu (copper)
Material - Conductor Insulation	Polyethylen
Material - Cable jacket	PUR
Material - Inner cable jacket	FRNC, with an aluminized film
Material - Body interface 1	Plastics
Material - Body interface 2	Plastics
Material - Contact interface 1	CuZn (brass)
Material - Contact interface 2	CuZn (brass)
Material - Contact finish interface 1	Au (gold)
Material - Contact finish interface 2	Au (gold)
Material - Contact carriers interface 1	Plastics
Material - Contact carriers interface 2	Plastics
Material - Union nut interface 1	CuZn (brass)



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Materials and material properties

Material - Union nut interface 2	CuZn (brass)
Material - Union nut finish interface 1	Ni (nickel)
Material - Union nut finish interface 2	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

Environmental conditions

Temperature (min. - max.)	
Temperature - Operating °C	-30 - 90 °C
Temperature - Operating °F	-22 - 194 °F
Particulate ingress interface 1	IP6X when plugged in
Liquid ingress/immersion interface 1	IPX7 when plugged in
Particulate ingress interface 2	IP6X when plugged in
Liquid ingress/immersion interface 2	IPX7 when plugged in
Pollution degree interface 1	3
Pollution degree interface 2	3

Approvals

RoHS	compliant
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The product meets the following standards

Connectors for electronic equipment	
circular connector	DIN EN 61076-2-101
Multi-element metallic cables used in analogue and digital communication and control	DIN EN 50288-2-1
Test for vertical flame propagation for a single insulated wire or cable	DIN EN 60332-1-2

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Classifications

ETIM 5.0	EC002599
ETIM 6.0	EC002599

Packing details

Type of packaging	1 pc(s) / plastic bag
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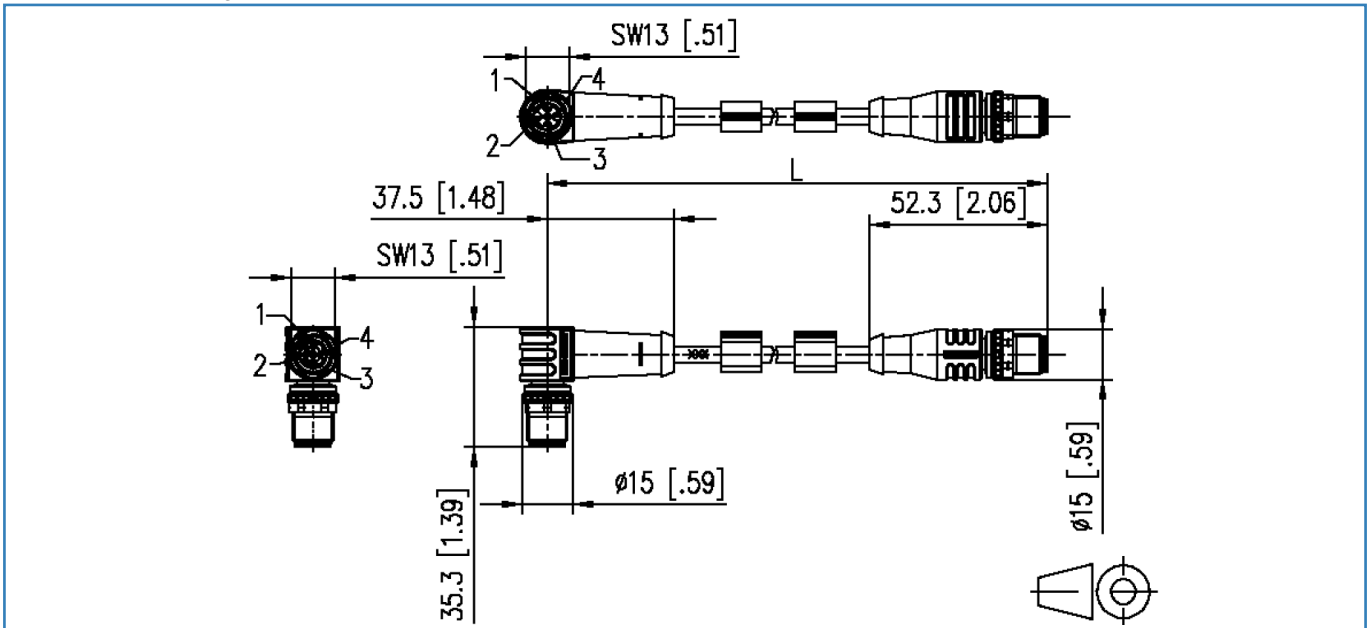
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