

P | Cabling

Data sheet

**Connection cable M12, D-coded, 10.0 m, AWG 22/7, cat.5e,
M12 plug angled - free line end,
4-pole, PUR, green**

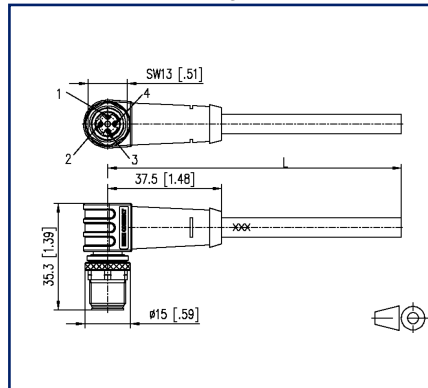
Page 1/7

P/N
142M1D90100
EAN 4250184174943
2021/08/02
Version: AV

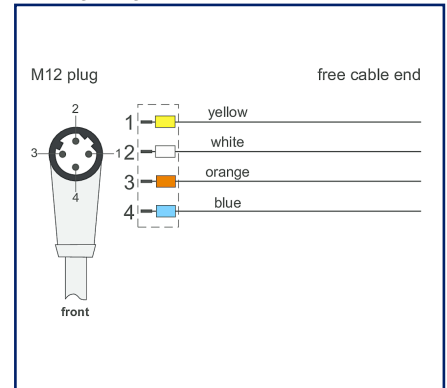
Illustrations



Dimensional drawing



Wiring diagram



See enlarged drawings at the end of document

Product specification

- shielded M12 Ethernet connection cable
- Cat.5e, 4-pole, D-coded (IEC 61076-2-101)
- side 1: M12-plug, angled
- side 2: free line end
- extrusion-coated cable on M12 connector
- 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

- variants: 1.0 m, 2.0 m, 5.0 m, 10.0 m
- other cable lengths on request

P | Cabling

Data sheet

Page 2/7

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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)	35.3 mm x 15 mm x 45 mm
Dimension - Interface 1 (L x W x H)	1.39 in. x 0.591 in. x 1.772 in.
Cable length (m)	10 m
Cable length (ft)	32.81 ft
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	free line end
Coding interface 1	D-coded
Number of positions/contacts interface 1	4
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.

P | Cabling

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Page 3/7

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Connections/interfaces

Cable sheath diameter (min. - max.)

Cable sheath diameter	6.5 mm
Cable sheath diameter	0.236 in.

Electrical characteristics

Current carrying capacity	4 A bei 40 °C
Rated voltage	60 V DC
UL rating (cable)	600 V
Insulation resistance	min. 100 MOhm

Mechanical data

Life - Number of mating cycles	min. 100
Bending radius without load	min. 49 mm
Maximum operating bending radius	26 mm
Maximum operating bending radius	1.024 in.
Maximum installation load	52 mm
Maximum installation load	2.047 in.
Number of alternating bending cycles (mechanical resistance) at:	3 million bending cycles
Alternating bending radius	100 mm
velocity	4 m/s
acceleration	4 m/s ²
Shielding braid coverage	85 %
Installation method	PROFINET type C

Materials and material properties

Material - Conductor	Cu (copper)
Material - Conductor Insulation	Polyethylene
Material - Cable jacket	PUR
Material - Inner cable jacket	FRNC, with an aluminized film
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

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Page 4/7

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Materials and material properties

Material - Pair shield finish	Al (Aluminium)
Material - Main shield	Cu (copper) braid
Material - Main shield finish	Sn (tin)
Flame retardancy	according to IEC 60332-1-2
Halogen free	yes
Oil resistance	yes
UV-resistance	yes
rag chain suitable	yes
RoHS	compliant
REACH - substance (SVHC)	Lead / 7439-92-1

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	IPX5, IPX7, IPX8 when plugged in
Pollution degree interface 1	3

Approvals

CE	compliant
UL listed (file no.)	Approval pending

The product meets the following standards

Generic cabling systems	
General requirements	ISO/IEC 11801-1 DIN EN 50173-1
PROFINET	yes
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
Common test methods for cables under fire conditions	
UNCE	R118
Test for vertical flame propagation for a single insulated wire or cable	IEC 60332-1-2
Measurement of smoke density of cables burning	DIN EN 61034

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Page 5/7

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Classifications

ETIM 5.0	EC002599
ETIM 6.0	EC002599
ETIM 7.0	EC002599

Packing details

Type of packaging	1 pc(s) / plastic bag
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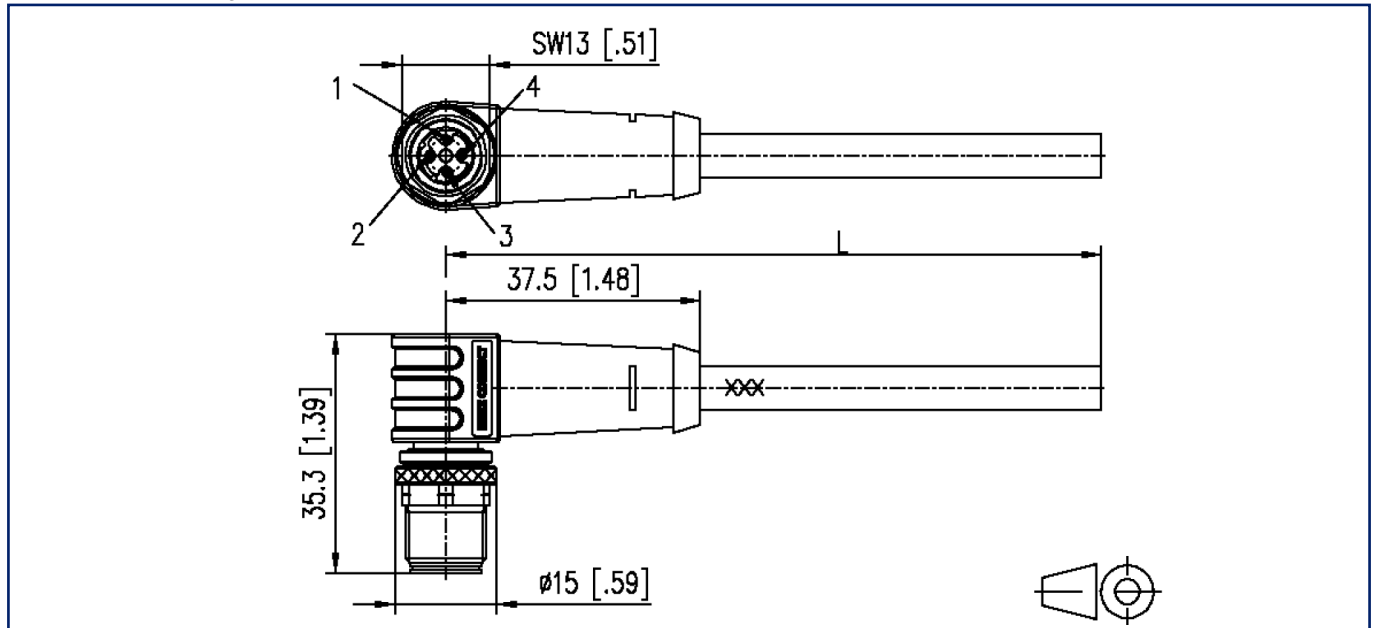
Page 6/7

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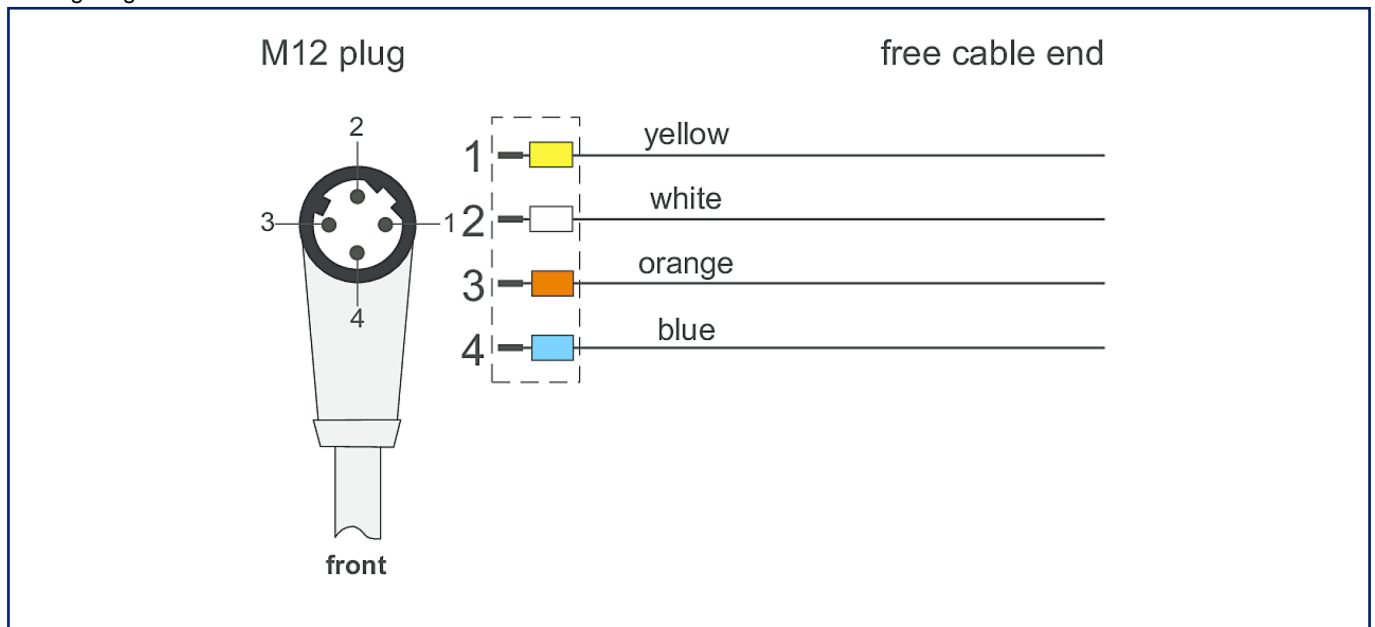
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Illustrations

Dimensional drawing



Wiring diagram



P | Cabling

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Page 7/7

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Principle diagram

