

# P | Cabling

## Data sheet

**Connection cable M12, D-coded, 5.0 m, AWG 22/7, cat.5e,  
M12 plug angled - free line end,  
4-pole, PUR, green**

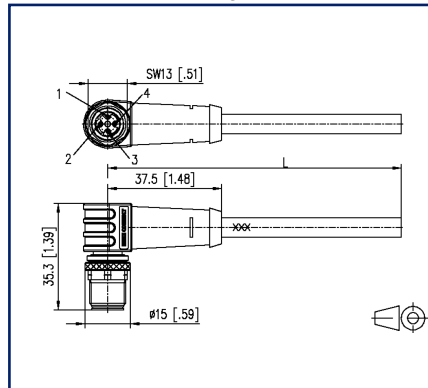
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P/N  
142M1D90050  
EAN 4250184174950  
2021/08/02  
Version: AW

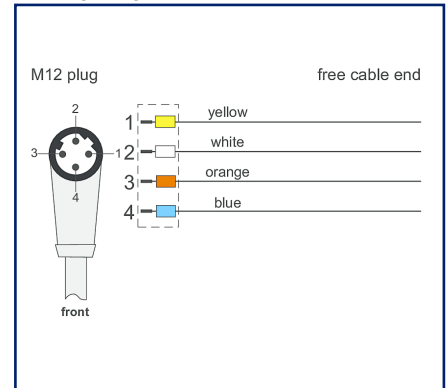
### Illustrations



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

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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)

5 m

Cable length (ft)

16.4 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.



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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 <sup>2</sup>
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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### 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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### 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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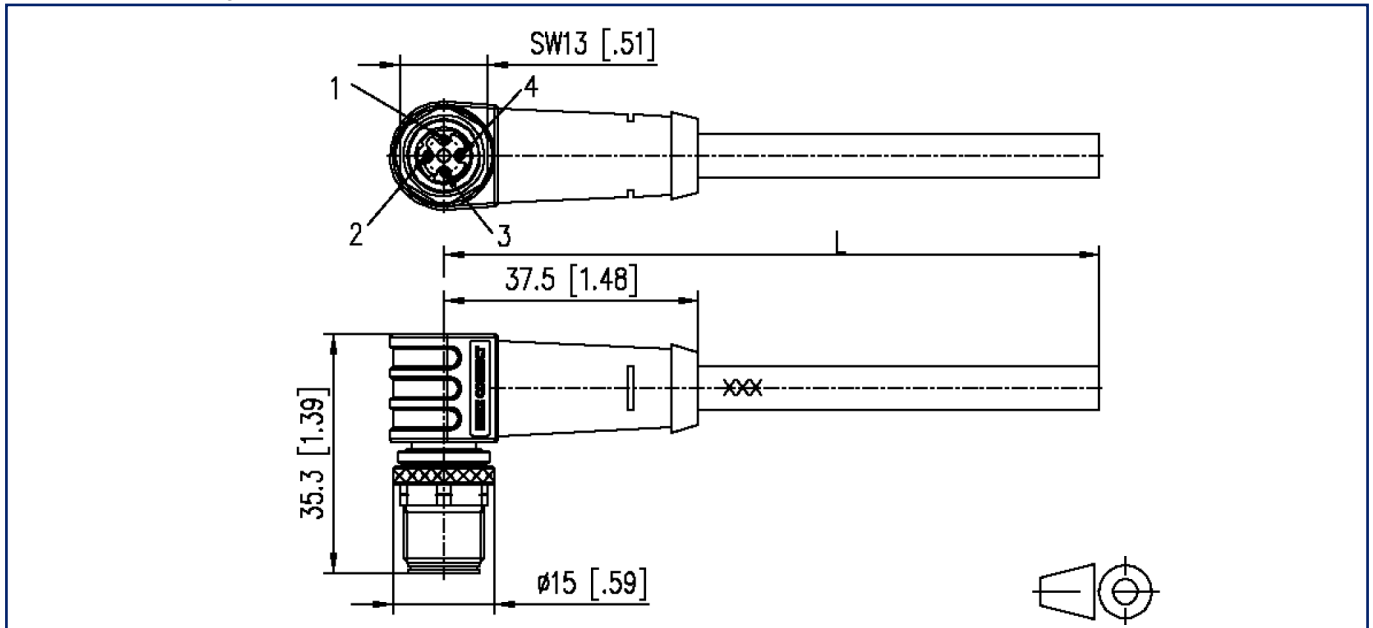
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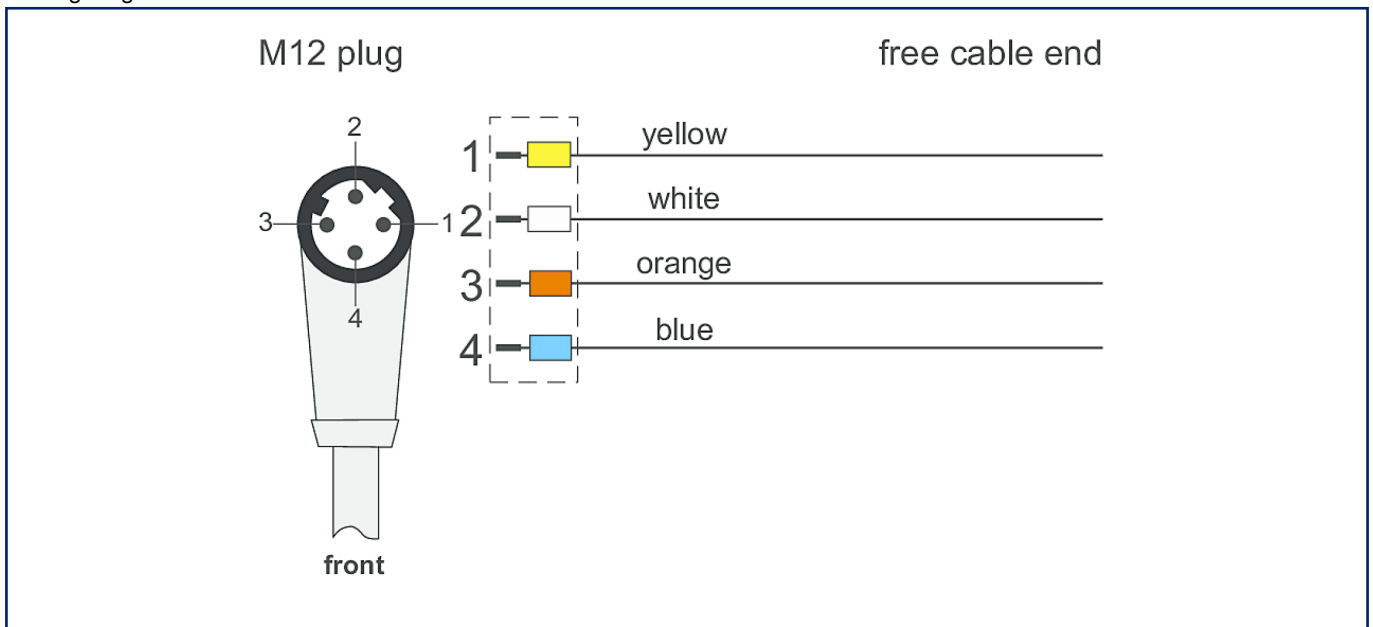
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Wiring diagram



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Principle diagram

