

P | Cabling

Data sheet

**M12 Sensor/actuator cable, A-coded, 5.0 m,
M12 plug straight - M12 jack straight,
unshielded, 4-pole, PUR**

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P/N

142MCA12050

EAN 4251394648026

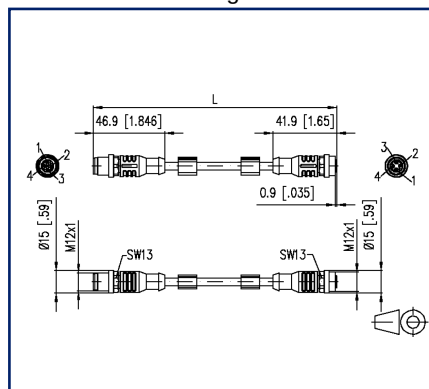
2022/03/14

Version: E

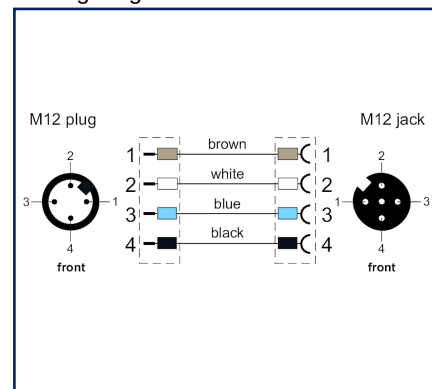
Illustrations



Dimensional drawing



Wiring diagram



See enlarged drawings at the end of document

Product specification

Flexible, silicone- and halogen-free control cable with high mechanical strength. The cable is resistant to chemicals, hydrolysis and microbes. The drag-chain application is possible at a bending radius of minimum 10xd. Due to its weld-field immunity, the cable is very well suited for the flexible application in robotics, machine tools and metal-cutting production. The cables meet the UL and CSA (UL10493/20549; cULus) requirements. Special features: flame retardant, seawater resistant, recyclable, LABS free, RoHs compliant, acid and alkali resistant, ozone resistant, UV resistant, hydrolysis proof, drag chain resistant, torsion resistant, welding sparks resistant, halogen free, silicone free, oil resistant

- 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

Sensor/actuator connection line M12, A-coded

Shielding

unshielded

Transmission technology

Copper

Color coding fiber/ wire(s)

brown, white, blue, black

Color

black

Dimensions

Dimension - Interface 1 (L x W x H)

46.9 mm x 15 mm x 15 mm

Dimension - Interface 1 (L x W x H)

1.846 in. x 0.591 in. x 0.591 in.

Dimension - Interface 2 (L x W x H)

41.9 mm x 15 mm x 15 mm

Dimension - Interface 2 (L x W x H)

1.65 in. x 0.591 in. x 0.591 in.

Cable length (m)

5 m

Cable length (ft)

16.4 ft

Labeling option

identification label carrier

Connections/interfaces

Connector technology interface 1

M12-plug

Connector technology interface 2

M12-jack

Coding interface 1

A-coded

Coding interface 2

A-coded

Number of positions/contacts interface 1

4

Number of positions/contacts interface 2

4

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

Conductor cross section, stranded wire

AWG 22/42

Conductor cross section, stranded wire

0.34 mm²

Stranded wire structure

42x0.10mm



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Connections/interfaces

Cable sheath diameter (min. - max.)

Cable sheath diameter	4.7 mm
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Cable sheath diameter	0.185 in.
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Electrical characteristics

Current carrying capacity	4 A at 40 °C
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Rated voltage	60 V DC
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Insulation resistance	min. 100 MOhm
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Mechanical data

Life - Number of mating cycles	min. 100
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Torsion	+/-360°/m, >= 2 million cycles
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Maximum operating bending radius	47 mm
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Alternating bending radius	47 mm
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acceleration	5 m/s²
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Materials and material properties

Material - Conductor	Cu (copper)
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Material - Conductor Insulation	polypropylene
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Material - Cable jacket	PUR
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Material - Body interface 1	Plastics
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Material - Body interface 2	Plastics
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Material - Protective housing interface 2	FPM/FKM
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Material - Contact interface 1	CuSn (tin bronze)
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Material - Contact interface 2	CuSn (tin bronze)
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Material - Contact finish interface 1	Au (gold)
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Material - Contact finish interface 2	Au (gold)
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Material - Contact carriers interface 1	Plastics
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Material - Contact carriers interface 2	Plastics
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Material - Union nut interface 1	CuZnPb (brass)
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Material - Union nut interface 2	CuZnPb (brass)
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Material - Union nut finish interface 1	Ni (nickel)
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Material - Union nut finish interface 2	Ni (nickel)
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Flame retardancy	yes
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Materials and material properties

Halogen free	yes
Silicone free	no paint wetting interfering substances (LaBS) in the process chain
LaBS Note	subsequent contamination possible due to handling and possible storage in your company
Oil resistance	yes
UV-resistance	yes
drag chain suitable	yes
torsional	yes
RoHS	compliant
REACH	compliant
REACH - substance (SVHC)	Lead / 7439-92-1

Environmental conditions

Temperature (min. - max.)	
Temperature - Operating °C	-50 °C - 90 °C
Temperature - Operating °F	-58 °F - 194 °F
Temperature - Installation °C	-30 °C - 90 °C
Temperature - Installation °F	-22 °F - 194 °F
Temperature - drag chain °C	-25 °C - 60 °C
Temperature - drag chain °F	-13 °F - 140 °F
Particulate ingress interface 1	IP6X when plugged in
Liquid ingress/immersion interface 1	IPX5, IPX7, IPX8 when plugged in
Particulate ingress interface 2	IP6X when plugged in
Liquid ingress/immersion interface 2	IPX5, IPX7, IPX8 when plugged in
Pollution degree interface 1	3
Pollution degree interface 2	3

Approvals

CE	compliant
UL listed (file no.)	Approval pending



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Standards/Regulations

Connectors for electronic equipment

circular connector	DIN EN 61076-2-101
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Classifications

ETIM 5.0	EC001855
ETIM 6.0	EC001855
ETIM 7.0	EC001855
ETIM 8.0	EC001855

Packing details

Type of packaging	1 pc(s) / plastic bag
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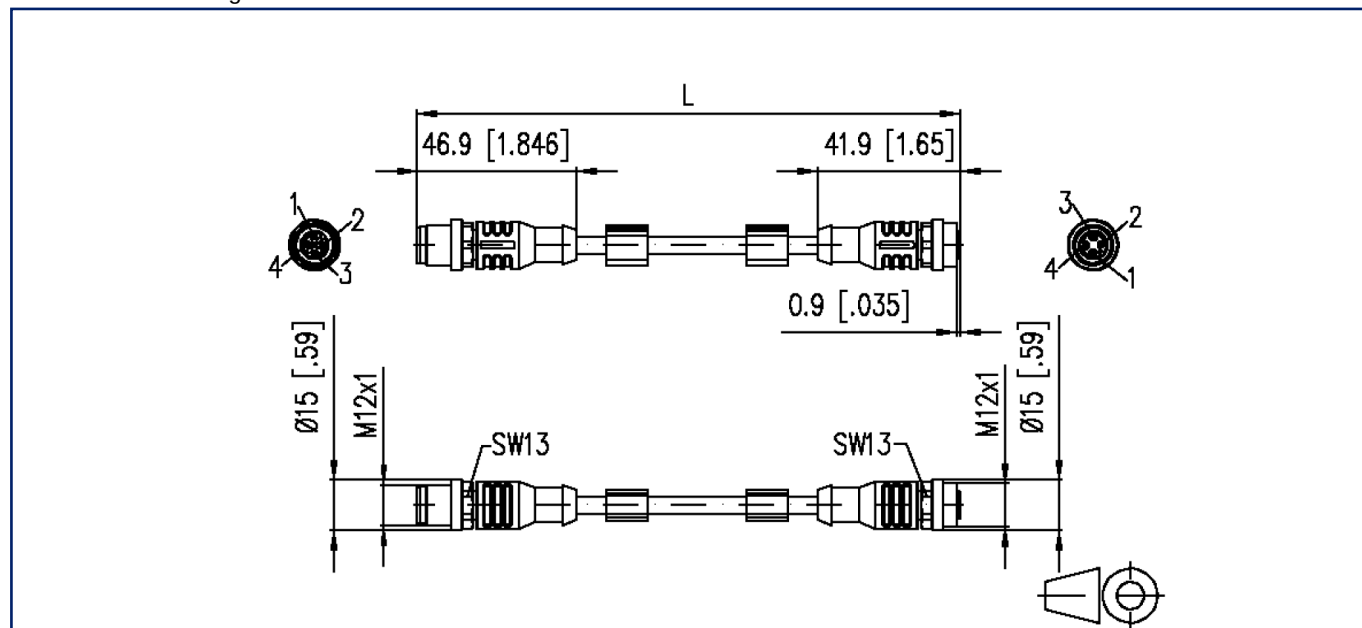
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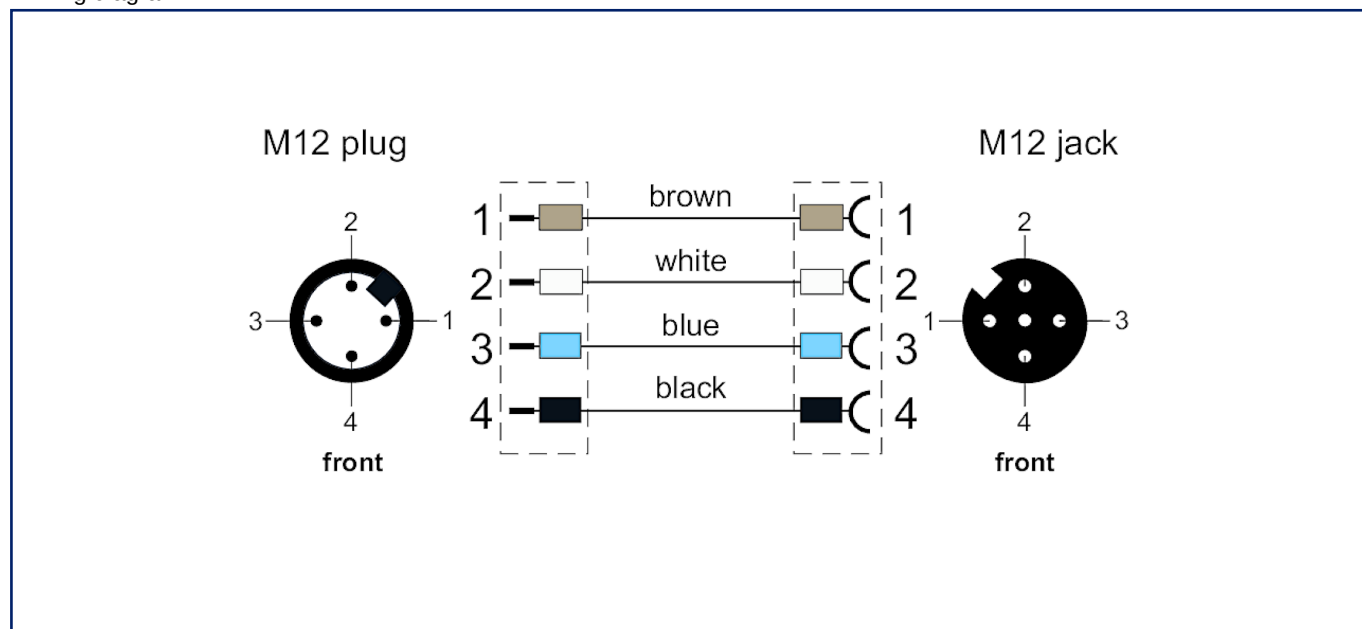
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Illustrations

Dimensional drawing



Wiring diagram



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Principle diagram

