

P | Cabling

Data sheet

**M12 Sensor/actuator cable, A-coded, 1.0 m,
M12 plug straight - M12 jack straight,
unshielded, 4-pole, PUR**

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P/N

142MCA12010

EAN 4251394647876

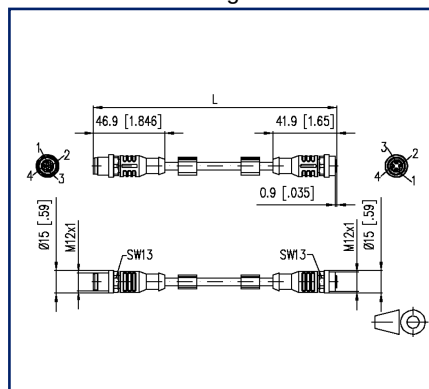
2022/03/14

Version: E

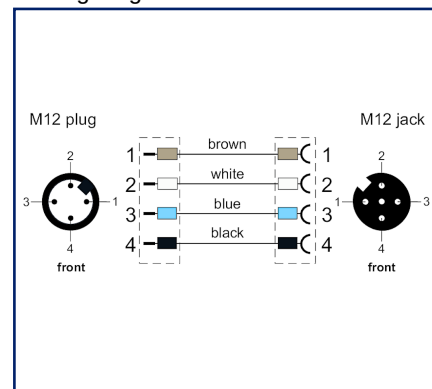
Illustrations



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)	1 m
Cable length (ft)	3.28 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 mm ²
Stranded wire structure	42x0.10mm



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Connections/interfaces

Cable sheath diameter (min. - max.)

Cable sheath diameter 4.7 mm

Cable sheath diameter 0.185 in.

Electrical characteristics

Current carrying capacity 4 A at 40 °C

Rated voltage 60 V DC

Insulation resistance min. 100 MOhm

Mechanical data

Life - Number of mating cycles min. 100

Torsion +/-360°/m, >= 2 million cycles

Maximum operating bending radius 47 mm

Alternating bending radius 47 mm

acceleration 5 m/s²

Materials and material properties

Material - Conductor Cu (copper)

Material - Conductor Insulation polypropylene

Material - Cable jacket PUR

Material - Body interface 1 Plastics

Material - Body interface 2 Plastics

Material - Protective housing interface 2 FPM/FKM

Material - Contact interface 1 CuSn (tin bronze)

Material - Contact interface 2 CuSn (tin bronze)

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 CuZnPb (brass)

Material - Union nut interface 2 CuZnPb (brass)

Material - Union nut finish interface 1 Ni (nickel)

Material - Union nut finish interface 2 Ni (nickel)

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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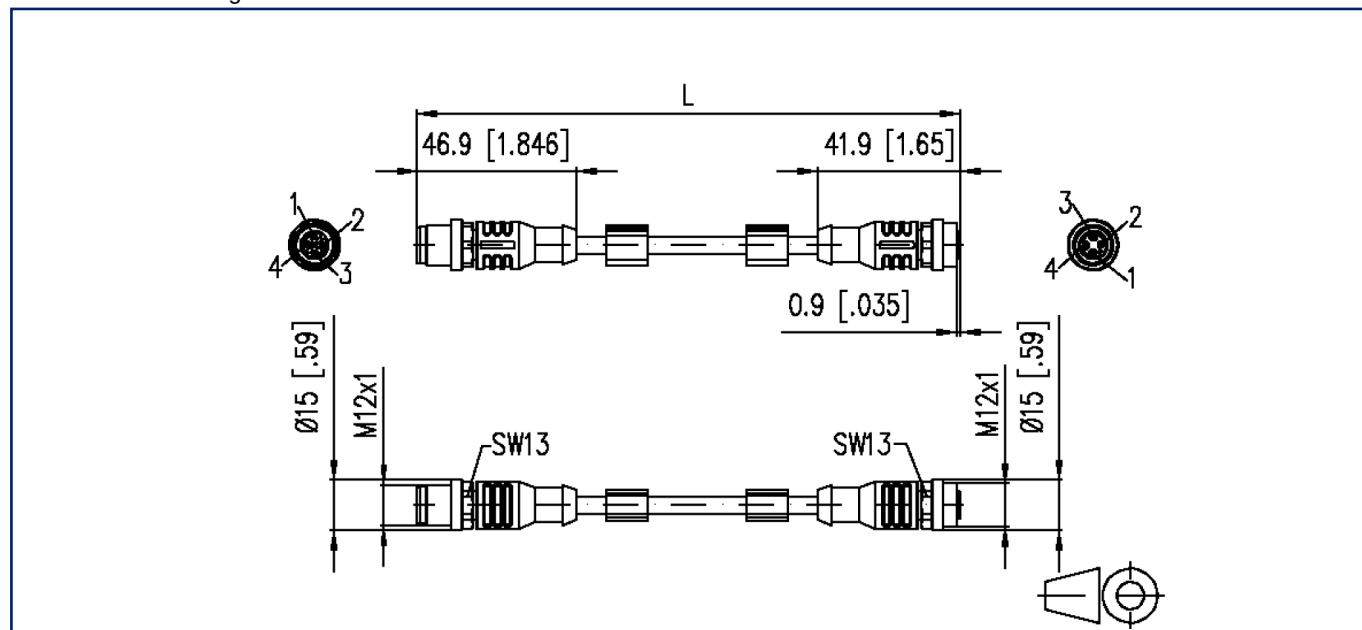
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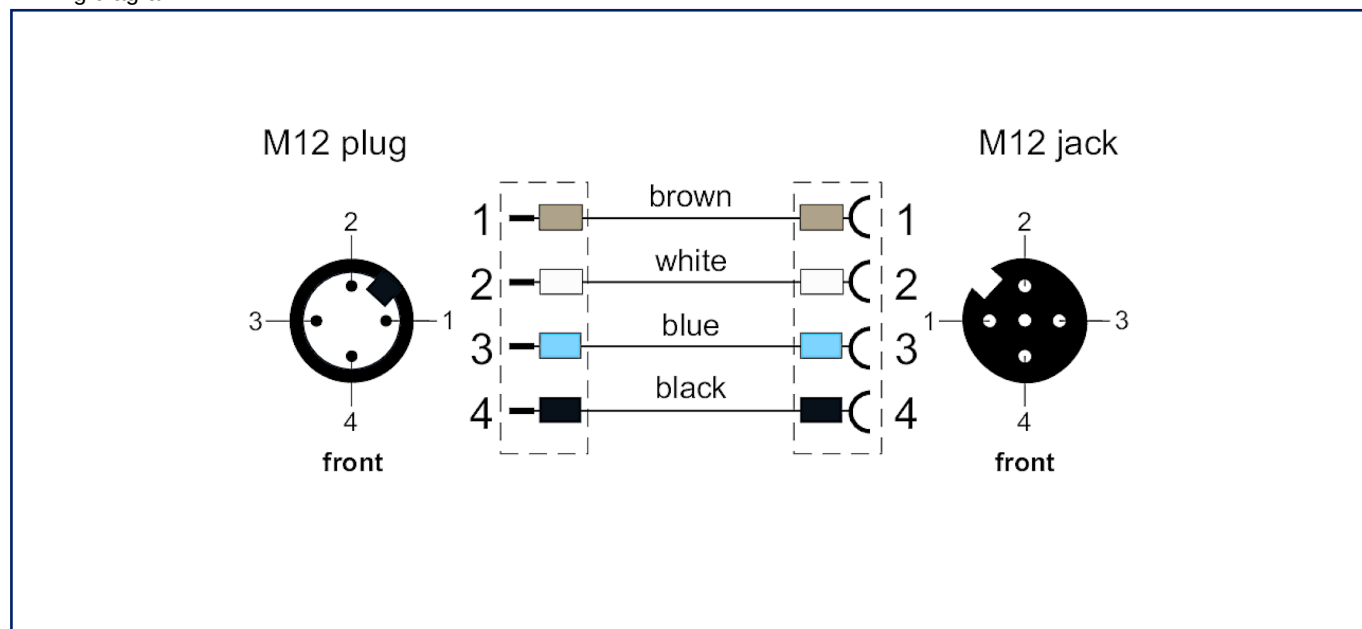
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Illustrations

Dimensional drawing



Wiring diagram



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Principle diagram

