

Data sheet

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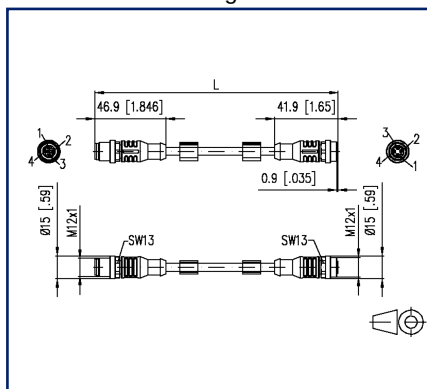
**M12 Sensor/actuator cable, A-coded, 1.0 m,
M12 plug straight - M12 jack straight,
unshielded, 4-pole, PVC**

P/N
142MIA12010
EAN 4251394648385
2025/06/16
Version: I

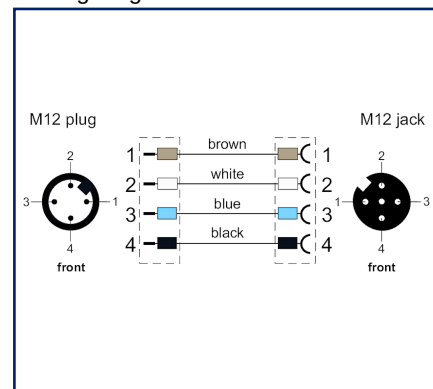
Illustrations



Dimensional drawing



Wiring diagram



See enlarged drawings at the end of document

Product specification

PVC-cable for measurement, control and sensor technology. Suitable for applications in dry areas on packaging machines, assembly and conveyor technology. High flexibility with unstressed movement (conditional drag chain application possible). Predestined for applications in food and beverage industry. Special features: seawater resistant, recyclable, LABS free, RoHs compliant, acid and alkali resistant, ozone resistant, UV 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	gray
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 22/19
Conductor cross section, stranded wire	0.34 mm ²
Stranded wire structure	19x0.15mm
Cable sheath diameter (min. - max.)	
Cable sheath diameter	4.5 mm
Cable sheath diameter	0.177 in.



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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
Maximum operating bending radius	45 mm
Alternating bending radius	45 mm

Materials and material properties

Material - Conductor	Cu (copper)
Material - Conductor Insulation	PVC
Material - Cable jacket	PVC
Material - Body interface 1	Plastics
Material - Body interface 2	Plastics
Material - Protective housing interface 2	FPM/FKM
Material - Contact interface 1	CuSn
Material - Contact interface 2	CuSn
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)
UV-resistance	yes
RoHS	compliant



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Environmental conditions

Temperature (min. - max.)

Temperature - Operating °C -25 °C - 80 °C

Temperature - Operating °F -13 °F - 176 °F

Temperature - Installation °C 0 °C - 80 °C

Temperature - Installation °F 32 °F - 176 °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

UL listed (file no.) Approval pending

Standards/Regulations

Connectors for electronic equipment

circular connector DIN EN 61076-2-101

Classifications

ETIM 7.0 EC001855

ETIM 8.0 EC001855

ETIM 9.0 EC001855

Packing details

Type of packaging 1 pc(s) / plastic bag

Application note

This product is a standard product of METZ CONNECT. METZ CONNECT is not aware of the specific intended use of the goods by the Customer or any customers of the Customer. The Customer guarantees that it has fully and sufficiently tested the use of the goods and any product modifications, product changes or product enhancements with regard to the specific intended use in accordance with the state of the art or in any other way. At METZ CONNECT's request, the Customer shall submit and make available meaningful evidence (e.g. test and laboratory protocols, certifications, etc.).



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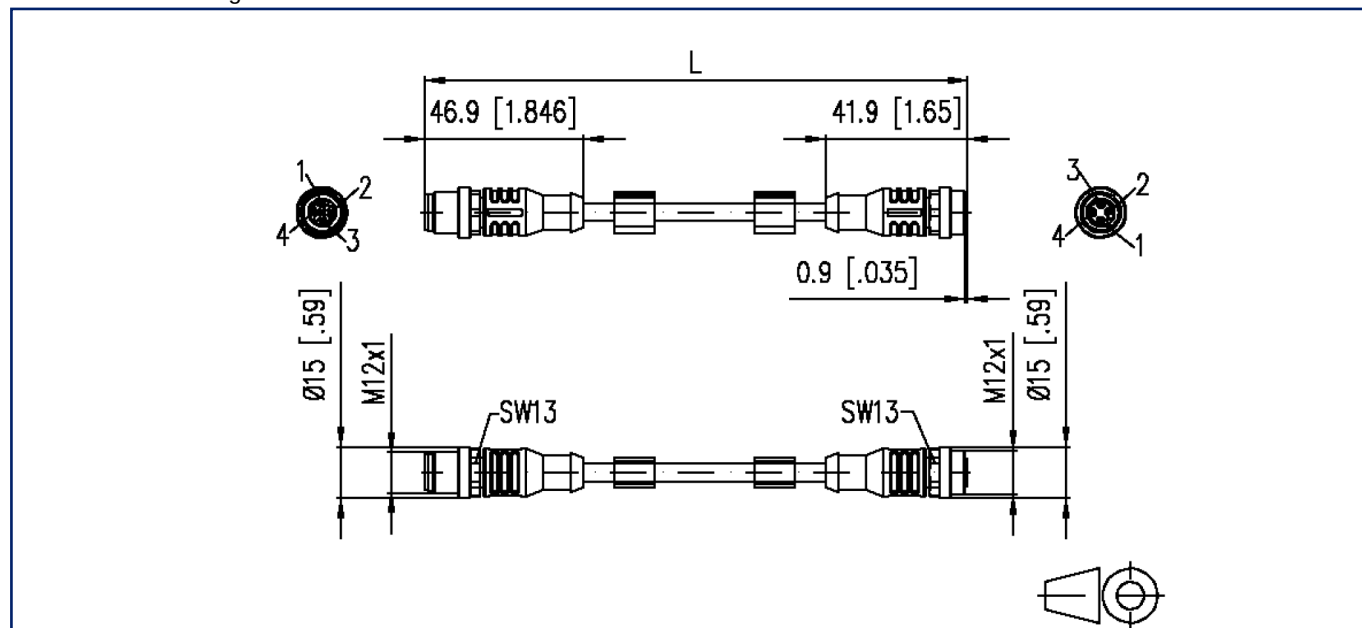
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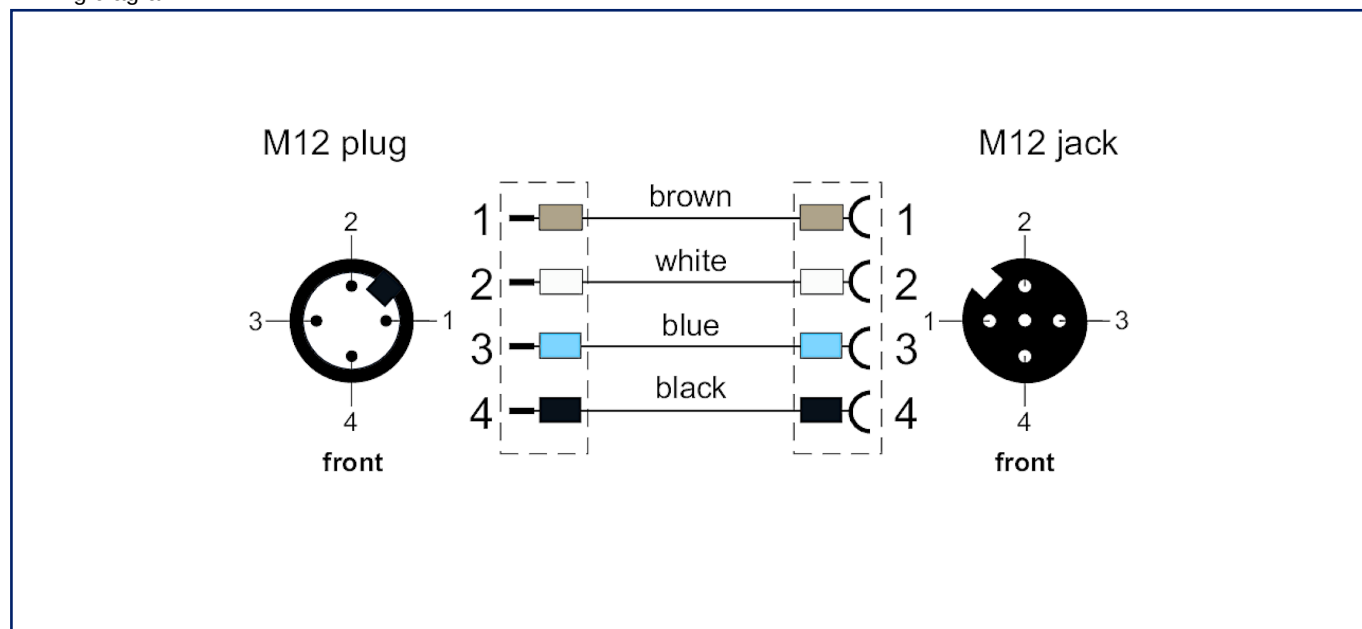
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Illustrations

Dimensional drawing



Wiring diagram



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Principle diagram

