Supplementary instructions

M12 x 1 plug for self connection

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Contents

Safety instructions for Ex areas

Please note the Ex-specific safety information for installation and operation in Ex areas. These safety instructions are part of the operating instructions and come with the Ex-approved instruments.

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1 For your safety

1.1 Appropriate use

The plugs described here are accessory parts for continuously measuring or point level sensors with M12 x 1 plug connectors.

They are used for separable connection to power supply/signal processing for two-wire sensors. Those are sensors whose power supply as well as measurement signal are transmitted over one pair of wires.

For this purpose, an existing cable on the building or system side is connected to the screw terminals in the plug.

1.2 Impermissible use

As a rule, it is not allowed to use plug connectors with four-wire instruments. Those are sensors whose power supply and measurement signal are transmitted over two separate pairs of wires.

1.3 General safety instructions

The safety information in the operating instructions manual of the respective sensor must be noted.

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2 Product description

Scope of delivery

The scope of delivery encompasses:

- M12 x 1 plug
- Documentation
  - This supplementary instructions manual

Function

The M12 x 1 plug for self-connection is an accessory part for sensors with single or double chamber housings equipped with M12 x 1 connectors with pins.

It is used for separable connection to:

- the voltage supply or signal processing
- an external display and adjustment unit
- a Secondary sensor

Configuration

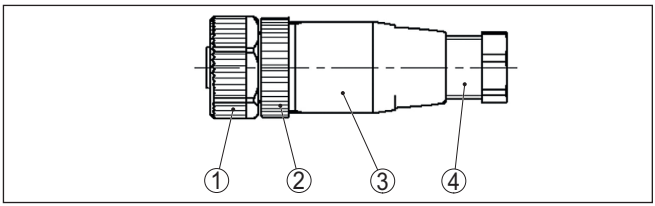

Fig. 1: M12 x 1 plug - Configuration

1 Knurled nut on the connection piece
2 Knurled nut on the housing
3 Housing
4 Cable gland

Versions

The connector is available in straight and angled versions for different cable diameters.

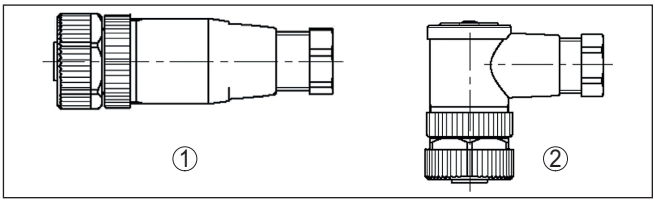

Fig. 2: M12 x 1 plug - Versions

1 Straight version
2 Bent version

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3 Connecting to power supply

3.1 Connection procedure

For connection of the plug, proceed as follows:

1. Loosen knurled nut on the housing, remove the housing
2. Loosen the cable gland and lead the connection cable through the cable gland and the housing.
3. Dismantle the connection cable, strip the insulation from the cores

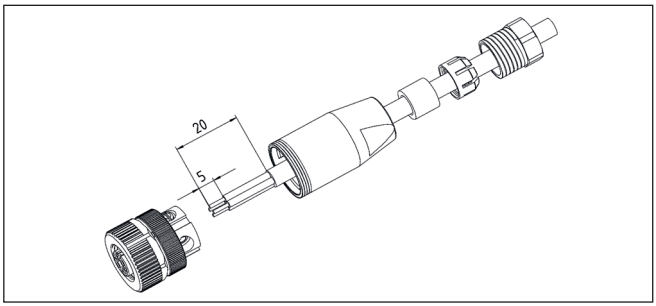

Fig. 3: Connection M12 x 1 plug

4. Connection core acc. to chapter " *Connection*" to the screw terminals
5. Attach housing, tighten knurled nut on housing
6. Tighten cable gland, check tight fit

The connection of the plug is now complete.

Disassembly is carried out in reverse order.

3.2 Wiring plan

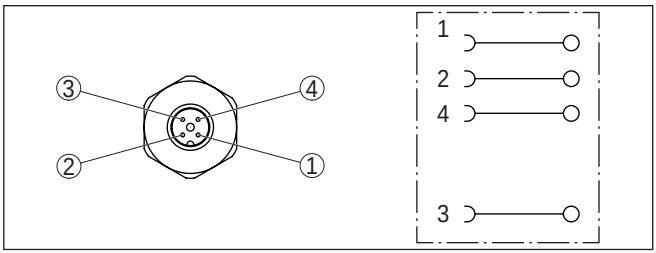

Fig. 4: View to the plug

4 Supplement

4.1 Technical data

Materials and mechanical data	
Contact support	PA
Contacts	CuZn
Contact surface	CuSnZn, Au
Housing	316L
O-ring	FKM
Recommended tightening torque [1]	0.6 Nm (0.442 lbf ft)

Temperature range	
Plug connector - separate	-40 … +85 °C (-40 … +185 °F)
Plug mounted on the sensor	The lower temperature applies

Electrical and electromechanical data	
Rated current per contact	4 A
Reference voltage	250 V AC/DC
Wire cross-section	max. 0.75 mm²
Diameter connection cable	
– Version A	6 … 8 mm
– Version B	4 … 6 mm

Protection rating	
Plug connector - separate [2]	IP67 according to EN 60529/IEC 529
Plug connector - mounted on the sensor [3]	the lower protection category applies

1) Self-securing
2) in connected state
3) in connected state

4.2 Dimensions

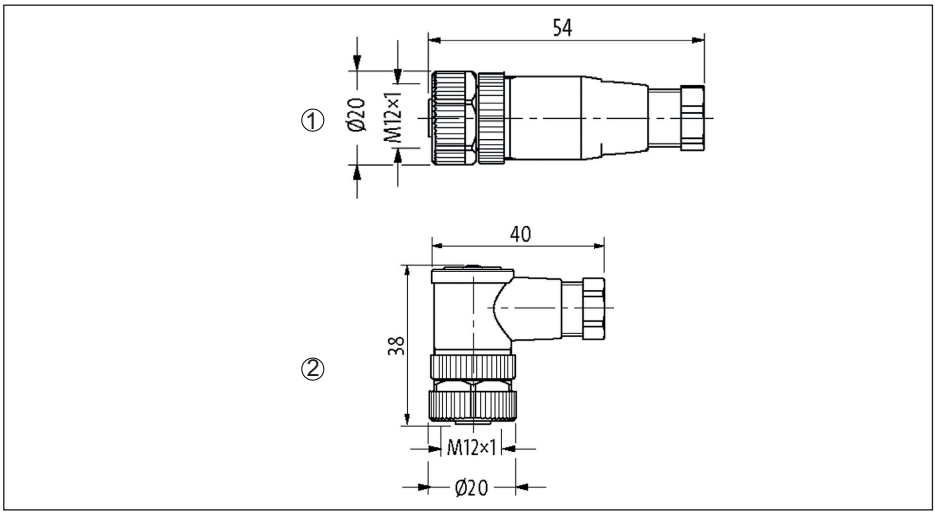

Fig. 5: Dimensions M12 x 1 plug

1 Plug straight
2 Plug bent

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Printing date:

All statements concerning scope of delivery, application, practical use and operating conditions of the sensors and processing systems correspond to the information available at the time of printing.
Subject to change without prior notice

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