

Supplementary instructions

Plug connector 7/8" Foundation Fieldbus

for continuously measuring sensors



Document ID: 30373



VEGA

Contents

| | | |
|----------|--|----------|
| 1 | For your safety | 3 |
| 1.1 | Appropriate use..... | 3 |
| 1.2 | Impermissible use | 3 |
| 1.3 | General safety instructions | 3 |
| 1.4 | Safety instructions for Ex areas | 3 |
| 2 | Product description | 4 |
| 3 | Mounting | 5 |
| 3.1 | Mounting preparations | 5 |
| 3.2 | Installation procedure | 5 |
| 4 | Connecting to power supply..... | 6 |
| 4.1 | Wiring plan | 6 |
| 5 | Supplement | 7 |
| 5.1 | Technical data | 7 |

1 For your safety

1.1 Appropriate use

The described plug connectors are accessory parts for continuously measuring sensors.

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.

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.

1.4 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.

For instruments with Exd or StEx approval, the use of plug connectors is not allowed.

2 Product description

Scope of delivery

The scope of delivery encompasses:

- Plug connector
- Documentation
 - This supplementary instructions manual

Function

The plug connector is an accessory part for sensors with single or double chamber housing and 1/2NPT cable entry.

It is used for disconnectable connection to the power supply or signal processing.

Configuration

The plug connector consists of a 7/8" plug and a multi-wire, fixed connection cable. The individual wires are marked with numbers for the terminals of the electronics module.

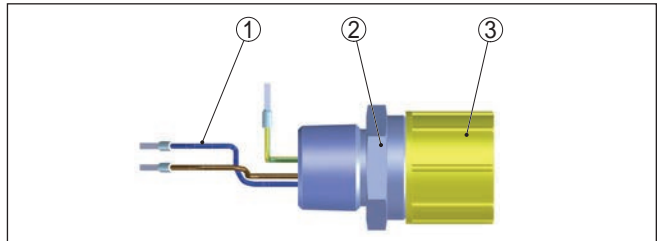


Fig. 1: Configuration plug connector 7/8" Foundation Fieldbus

- 1 Connection cable
- 2 7/8" plug
- 3 Protective cap

Area of application

The plug connector is screwed into the sensor housing instead of the blind plug or the dust protection cap.

3 Mounting

3.1 Mounting preparations

Tools

The following tools are required for mounting:

- Hexagon socket wrench size 8 for unscrewing the blind plug
- Wrench SW 1" for tightening the plug connector

3.2 Installation procedure

Position in the housing

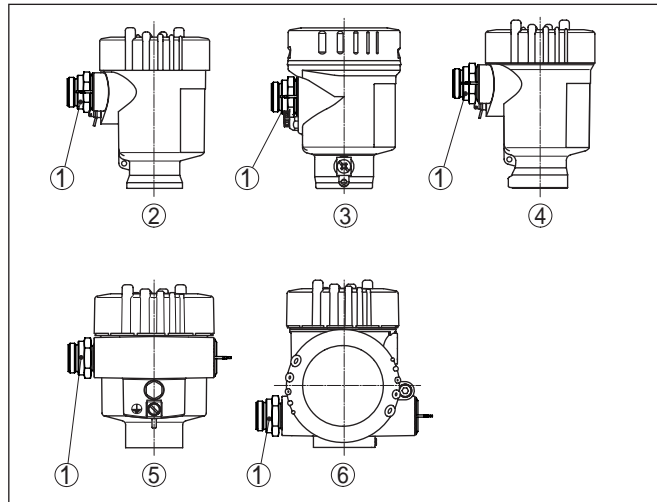


Fig. 2: Position of plug connector depending on housing

- 1 Plug connector 7/8" FF
- 2 Single chamber plastic
- 3 Single chamber stainless steel (electropolished)
- 4 Single chamber stainless steel (precision casting)
- 5 Single chamber aluminium
- 6 Double chamber plastic, stainless steel (precision casting), Aluminium

Installation

Proceed as follows to mount the plug connector:

1. Open the cover of the electronics compartment
2. Unscrew the blind plug from the opening of the cable entry or remove the protective cap
3. Screw in 7/8" plug connector
4. Connect wires as described in chapter "Connecting to power supply"
5. Replace the dust protection cap of the second cable entry with a blind plug

The mounting of the plug connector is finished.

Disassembly is carried out in reverse order.

4 Connecting to power supply

4.1 Wiring plan

The illustration shows the structure and the assigned pins of the plug connector. The table shows the assignment of the individual contact pins to the terminals of the sensor electronics.

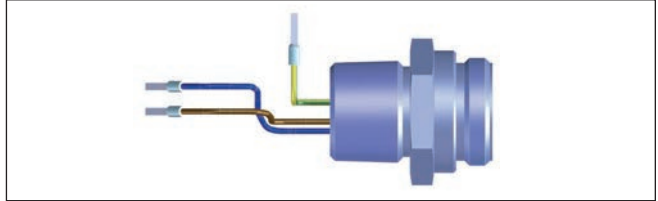


Fig. 3: Configuration plug connector 7/8" - Foundation Fieldbus

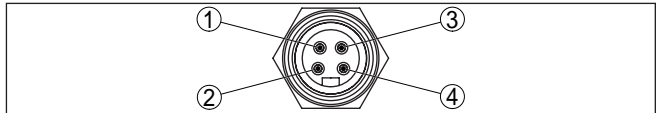



Fig. 4: Contact pins plug connector 7/8" - Foundation Fieldbus

| Contact pin | Colour, connection cable in the sensor | Terminal, electronics module | Function/Polarity |
|-------------|--|---|-------------------|
| 1 | Blue | Terminal 2 | Power supply/- |
| 2 | Brown | Terminal 1 | Power supply/+ |
| 3 | free | free | free |
| 4 | Green/Yellow |  | Shielding |

5 Supplement

5.1 Technical data

Materials

| | |
|-----------------|----------------------------|
| Contact support | TPU |
| Contacts | CuZn, gold-plated |
| Housing | Stainless steel passivated |

Temperature range

| | |
|------------------------------|---------------------------------------|
| Plug connector - separate | -30 ... +90 °C (-22 ... +194 °F) |
| Plug - mounted on the sensor | The lowest temperature always applies |

Electrical data

| | |
|---------------------|-------|
| Rated current | 4 A |
| Reference voltage | 300 V |
| Insulation material | PVC |

Protection rating¹⁾

| | |
|--|--|
| Plug connector - separate | IP67 acc. to IEC 60529, Type 6P acc. to NEMA |
| Plug connector - mounted on the sensor | The lowest protection category applies |

¹⁾ in the connected state

Printing date:

VEGA

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

© VEGA Grieshaber KG, Schiltach/Germany 2019



30373-EN-191204

VEGA Grieshaber KG
Am Hohenstein 113
77761 Schiltach
Germany

Phone +49 7836 50-0
Fax +49 7836 50-201
E-mail: info.de@vega.com
www.vega.com