

## Supplementary instructions

### PA/FF adapter kit for VE- GADIS 61 and 81

Connection cable with plug M12x1 as retro-  
fitting set



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**VEGA**

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## 1 For your safety

### 1.1 Appropriate use

The PA-/FF-Adapterkit is suitable for retrofitting existing plics® sensors with signal output Profibus PA or Foundation Fieldbus FF.

### 1.2 General safety instructions

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

### 1.3 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 manual 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

### 2.1 Configuration

#### Scope of delivery

The scope of delivery encompasses:

- Ready-made plug connector M12 x 1
- Ready-made connection cable with socket M12 x 1
- Documentation
  - This instruction

#### Versions

The PA-/FF-Adapterkit is available in the following version:

- Plug connector M12 x 1, with thread M20 x 1 for single chamber housing
- Plug connector M12 x 1, with thread M16.5 x 1 for double chamber housing

### 2.2 Principle of operation

#### Area of application

The PA-/FF-Adapterkit is used for connection of an external display and adjustment unit VEGADIS 61 or VEGADIS 81 to a sensor with signal output Profibus PA or Foundation Fieldbus FF. The plug connector M12 x 1 is screwed into the sensor housing instead of the existing blind plug.

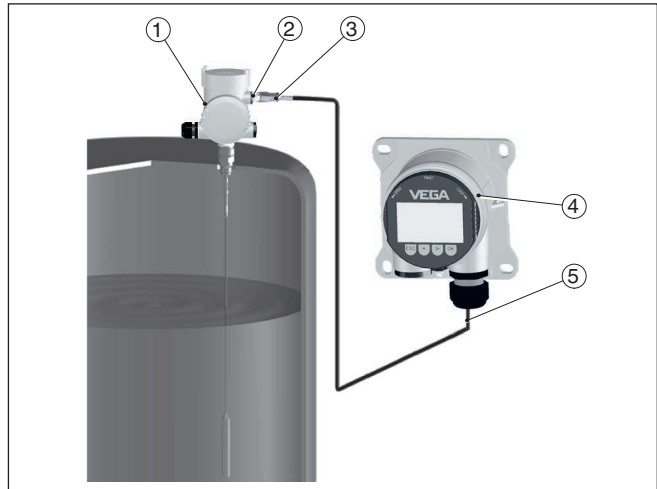


Fig. 1: Connection of the external display and adjustment unit to the sensor

- 1 Sensor
- 2 M12 x 1 plug
- 3 Socket M12 x 1
- 4 External display and adjustment unit
- 5 Open cable end

### 3 Mounting

#### 3.1 Mounting preparations

The following tools are required for mounting:

- Single chamber housing
  - Screwdriver SW 24 for unscrewing the blind plug
  - Screwdriver SW 24 for screwing in the plug
- Double chamber housing
  - Screwdriver SW 19 for unscrewing the blind plug
  - Screwdriver SW 17 for screwing in the plug

#### 3.2 Installation procedure

Position of the blind plug in the housing

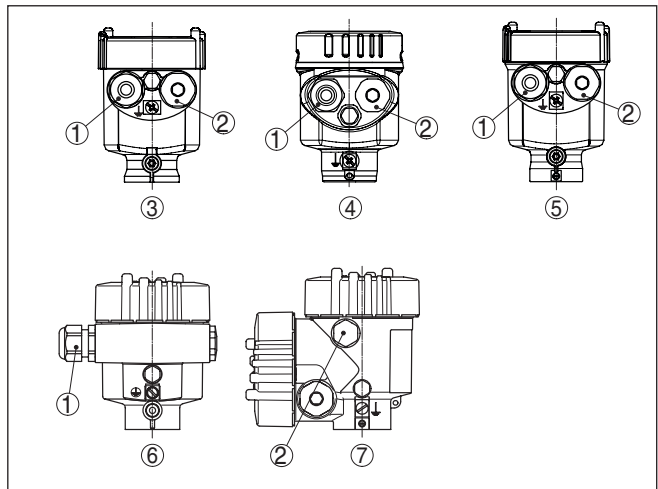


Fig. 2: Position of the blind plugs on different instrument versions

- 1 Blind plug
- 2 Cable gland
- 3 Single chamber plastic
- 4 Single chamber stainless steel (electropolished)
- 5 Single chamber stainless steel (precision casting)
- 6 Single chamber Aluminium
- 7 Double chamber

#### Plug mounting

Proceed as follows for mounting:


1. Open the cover of the electronics compartment
2. Unscrew the blind plug
3. Screw in the M12 plug
4. Connect the wires according to chapter "Connect"

## 4 Connecting

### 4.1 Wiring plan

#### Connection of the plug M12 x 1 on the sensor

The table shows the connection of the wires to the respective terminal.

Contact pin	Colour connection cable in the sensor	Terminal, electronics module
1	Black	Terminal 5
2	White	Terminal 6
3	Blue	Terminal 7
4	Brown	Terminal 8
	Green/Yellow	

#### Connection open cable end to the external display and adjustment unit

The table shows the connection of the wires to the respective terminal.

Wire colour	Terminal, electronics module
Black	Terminal 5
White	Terminal 6
Blue	Terminal 7
Brown	Terminal 8

### 4.2 Connection example

#### Connection via M12 plug connector and open cable end

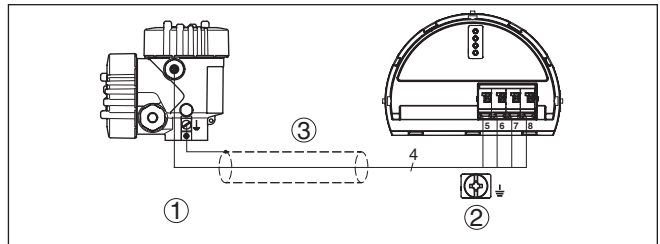


Fig. 4: Connection example via M12 plug connector and open cable end

- 1 Sensor
- 2 Connection cable
- 3 External display and adjustment unit

## 5 Supplement

### 5.1 Technical data

#### General data, materials

Colour - standard version	Black
Colour - Ex-version	Blue
Material cable cover	PUR

#### Ambient conditions

Temperature range	-20 ... +85 °C (-4 ... +185 °F)
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#### Electromechanical data - Special cable for PA/FF sensors

Configuration	three cores, inner screen as fourth core, insulation, outer screen, jacket
Material	PUR
Wire cross-section	0.34 mm <sup>2</sup> (AWG 22)
Length	max. 25 m (82.021 ft)
Min. bending radius at 25 °C/77 °F	25 mm (0.985 in)
Diameter approx.	8 mm (0.197 in)

#### Protection rating

Plug connector - separate (connected status)	IP 68 (0.2 bar)
Plug connector - sensor	The lower protection category applies

Printing date:

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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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