Operating Instructions

Supplementary electronics

PROTRAC sensors

PT30ZE

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Contents

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1 About this document

1.1 Function

This instruction provides all the information you need for mounting, connection and setup as well as important instructions for maintenance, fault rectification, the exchange of parts and the safety of the user. Please read this information before putting the instrument into operation and keep this manual accessible in the immediate vicinity of the device.

1.2 Target group

This operating instructions manual is directed to trained personnel. The contents of this manual must be made available to the qualified personnel and implemented.

1.3 Symbols used

Document ID
This symbol on the front page of this instruction refers to the Document ID. By entering the Document ID on www.vega.com you will reach the document download.

Information, note, tip: This symbol indicates helpful additional information and tips for successful work.

Note: This symbol indicates notes to prevent failures, malfunctions, damage to devices or plants.

Caution: Non-observance of the information marked with this symbol may result in personal injury.

Warning: Non-observance of the information marked with this symbol may result in serious or fatal personal injury.

Danger: Non-observance of the information marked with this symbol results in serious or fatal personal injury.

Ex applications
This symbol indicates special instructions for Ex applications.

- **List**
  The dot set in front indicates a list with no implied sequence.

1. **Sequence of actions**
   Numbers set in front indicate successive steps in a procedure.

Battery disposal
This symbol indicates special information about the disposal of batteries and accumulators.

2 For your safety

2.1 Authorised personnel

All operations described in this documentation must be carried out only by trained, qualified personnel authorised by the plant operator.

During work on and with the device, the required personal protective equipment must always be worn.

2.2 Appropriate use

The components described in this manual are replacement components for existing sensors.

2.3 Approvals

If the instrument comes with approvals, the associated approval documents of the sensor must always be noted. They are included with the delivery but can also be downloaded under www.vega.com via " VEGA Tools" and " Search" as well as via " *Downloads*" and " *Approvals*".

2.4 Environmental instructions

Protection of the environment is one of our most important duties. That is why we have introduced an environment management system with the goal of continuously improving company environmental protection. The environment management system is certified according to DIN EN ISO 14001.

Please help us fulfil this obligation by observing the environmental instructions in this manual:

- Chapter " *Packaging, transport and storage*"
- Chapter " *Disposal*"

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3 Product description

3.1 Configuration

Scope of delivery

The scope of delivery encompasses:

- Supplementary electronics for PROTRAC sensors
- Documentation
  - This operating instructions manual
  - If necessary, further certificates

3.2 Principle of operation

Application area

The supplementary electronics module PT30ZE is a replacement module for PROTRAC sensors with double chamber housing:

- FIBERTRAC
- SOLITRAC
- MINITRAC
- POINTRAC
- WEIGHTRAC

Functional principle

The supplementary electronics for PROTRAC sensors is used for connection of a sensor with double chamber housing to the signal cable.

3.3 Packaging, transport and storage

Packaging

Your instrument was protected by packaging during transport. Its capacity to handle normal loads during transport is assured by a test based on ISO 4180.

The packaging consists of environment-friendly, recyclable cardboard. For special versions, PE foam or PE foil is also used. Dispose of the packaging material via specialised recycling companies.

Transport

Transport must be carried out in due consideration of the notes on the transport packaging. Nonobservance of these instructions can cause damage to the device.

Transport inspection

The delivery must be checked for completeness and possible transit damage immediately at receipt. Ascertained transit damage or concealed defects must be appropriately dealt with.

Storage

Up to the time of installation, the packages must be left closed and stored according to the orientation and storage markings on the outside.

Unless otherwise indicated, the packages must be stored only under the following conditions:

- Not in the open
- Dry and dust free
- Not exposed to corrosive media
- Protected against solar radiation
- Avoiding mechanical shock and vibration

Storage and transport temperature

- Storage and transport temperature see chapter " *Supplement - Technical data - Ambient conditions*"
- Relative humidity 20 … 85 %

4 Mounting

4.1 Installation procedure

Installation procedure

The supplementary electronics is installed in the adjustment and connection compartment. The following illustration shows the position of the adjustment and connection compartment in the double chamber housing.

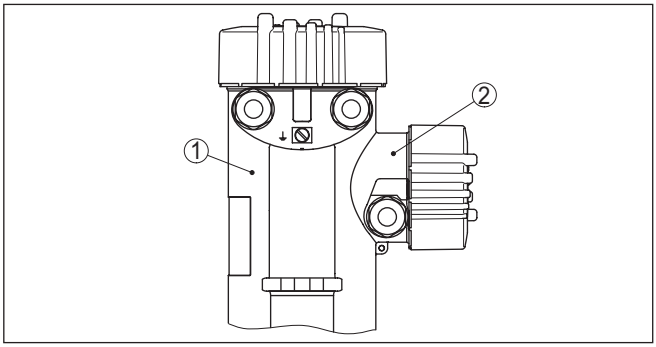

Fig. 1: Position of adjustment and connection compartment (supplementary electronics) and electronics and connection compartment (sensor electronics)

1 Electronics and connection compartment (sensor electronics)
2 Adjustment and connection compartment (supplementary electronics)

Proceed as follows:

1. Unscrew the housing cover of the adjustment and connection compartment (supplementary electronics)

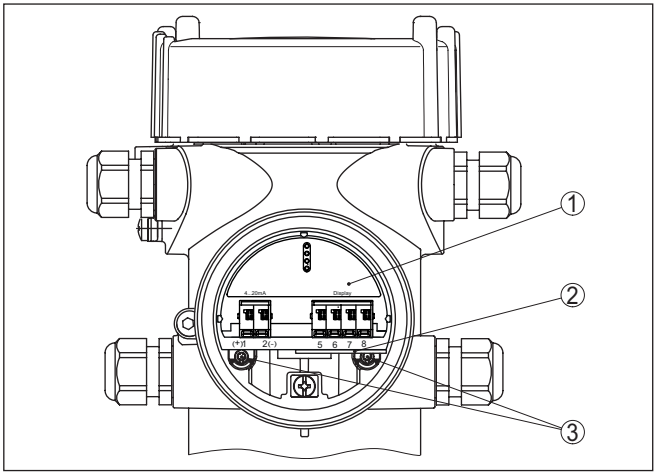

Fig. 2: Adjustment and connection compartment with supplementary electronics

1 Supplementary electronics
2 Dismounting tool
3 Screws (2 pcs.)

2. Loosen the two holding screws (3) of the supplementary electronics with a screwdriver (Torx size T 10 or slot size 4)
3. Pull the previous supplementary electronics out by using the dismounting tool (2).
4. Insert the new supplementary electronics module (1) carefully.
5. Screw in the two holding screws (3) and tighten them
6. Screw the housing lid back on

The supplementary electronics is exchanged.

As a rule, the exchange of the supplementary electronics must be documented internally when used in Ex applications.

4.2 Electronics versions

4.2.1 Electronics version 4 … 20 mA/HART

4 … 20 mA/HART - Non-Ex devices and devices with non-intrinsically safe current output

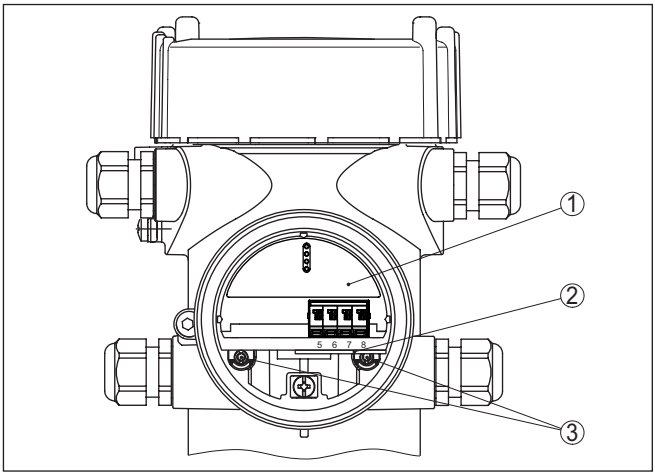

Fig. 3: Adjustment and connection compartment with supplementary electronics - 4 … 20 mA/HART - Non-Ex devices and devices with non-intrinsically safe current output

1 Supplementary electronics
2 Dismounting tool
3 Screws (2 pcs.)

4 … 20 mA/HART - Devices with intrinsically safe current output

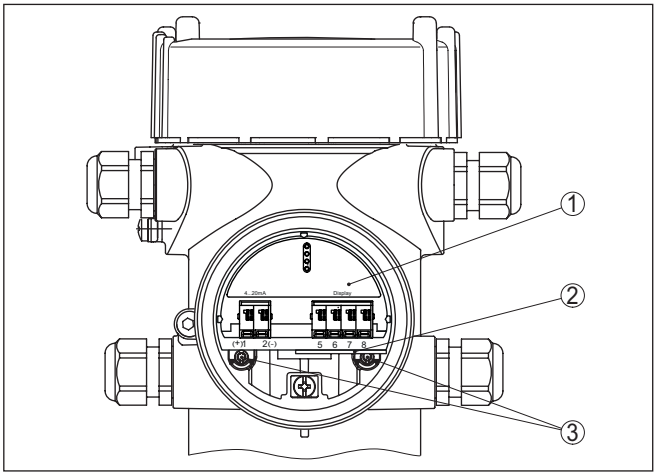

Fig. 4: Adjustment and connection compartment with supplementary electronics - 4 … 20 mA/HART - Devices with intrinsically safe current output

1 Supplementary electronics
2 Dismounting tool
3 Screws (2 pcs.)

4.2.2 Electronics versions Profibus PA, Foundation Fieldbus

Profibus PA, Foundation Fieldbus - Non-Ex devices and devices with non-intrinsically safe signal output

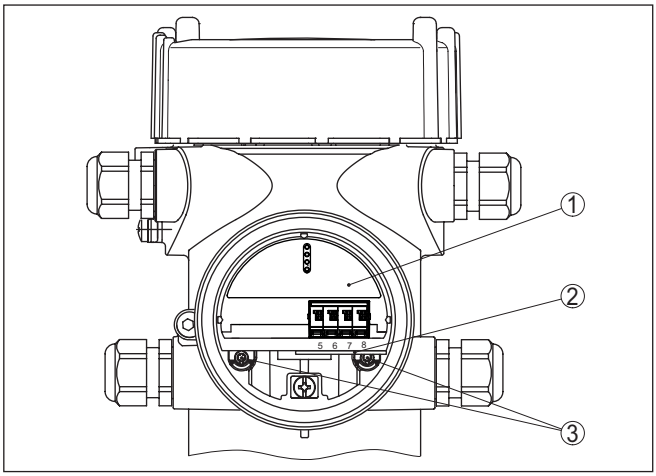

Fig. 5: Adjustment and connection compartment with supplementary electronics - Profibus PA, Foundation Fieldbus - Non-Ex devices and devices with non-intrinsically safe signal output

1 Supplementary electronics
2 Dismounting tool
3 Screws (2 pcs.)

Profibus PA, Foundation Fieldbus - Devices with intrinsically safe signal output

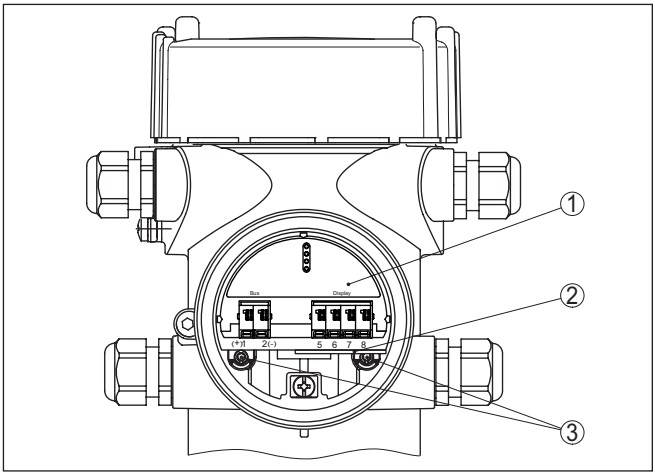

Fig. 6: Adjustment and connection compartment with supplementary electronics - Profibus PA, Foundation Fieldbus - Devices intrinsically safe signal output

1 Supplementary electronics
2 Dismounting tool
3 Screws (2 pcs.)

5 Maintenance

5.1 How to proceed if a repair is necessary

You can find an instrument return form as well as detailed information about the procedure in the download area of our homepage. By doing this you help us carry out the repair quickly and without having to call back for needed information.

In case of repair, proceed as follows:

- Print and fill out one form per instrument
- Clean the instrument and pack it damage-proof
- Attach the completed form and, if need be, also a safety data sheet outside on the packaging
- Ask the agency serving you to get the address for the return shipment. You can find the agency on our homepage.

6 Dismount

6.1 Dismounting steps

Warning:
Before dismounting, be aware of dangerous process conditions such as e.g. pressure in the vessel or pipeline, high temperatures, corrosive or toxic media etc.

Take note of chapters " *Mounting*" and " *Connecting to voltage supply*" and carry out the listed steps in reverse order.

6.2 Disposal

The instrument consists of materials which can be recycled by specialised recycling companies. We use recyclable materials and have designed the electronics to be easily separable.

WEEE directive
The instrument does not fall in the scope of the EU WEEE directive. Article 2 of this Directive exempts electrical and electronic equipment from this requirement if it is part of another instrument that does not fall in the scope of the Directive. These include stationary industrial plants.

Pass the instrument directly on to a specialised recycling company and do not use the municipal collecting points.

If you have no way to dispose of the old instrument properly, please contact us concerning return and disposal.

7 Supplement

7.1 Technical data

Technical data

The technical data are listed in the operating instructions manual of the respective device.

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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