

Operating Instructions

Replacement housing for plics® instruments



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VEGA

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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.

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1 About this document

1.1 Function

This operating instructions manual provides all the information you need for mounting, connection and setup of the instrument. Furthermore there are 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 specialist personnel. The contents of this manual should be made available to these personnel and put into practice by them.

1.3 Symbols used



Information, tip, note

This symbol indicates helpful additional information.



Caution: If this warning is ignored, faults or malfunctions can result.



Warning: If this warning is ignored, injury to persons and/or serious damage to the instrument can result.



Danger: If this warning is ignored, serious injury to persons and/or destruction of the instrument can result.



Ex applications

This symbol indicates special instructions for Ex applications.



SIL applications

This symbol indicates instructions for functional safety which must be taken into account particularly for safety-relevant applications.

- **List**

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

- **Action**

This arrow indicates a single action.

- 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 operating instructions manual must be carried out only by trained specialist 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

Electronics module, emitting electronics, housing or process components are replacement components for existing sensors.

2.3 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*"

3 Product description

3.1 Configuration

Scope of delivery

The scope of delivery encompasses:

- Replacement housing with screwed cover
- Retaining ring
- Check bracket
- Screws
- Lock washers
- Documentation
 - This operating instructions manual

Constituent parts

The housing consists of the basic body as well as a screwed cover for the electronics or connection compartment.

Basic body and screwed cover are available in different materials. Depending on the order, the screwed cover is available with or without inspection window for the display and adjustment module PLICSCOM.

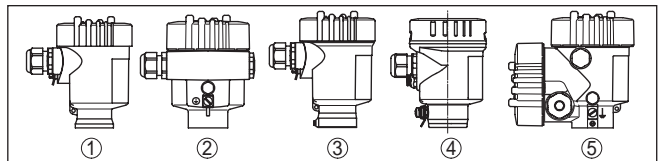


Fig. 1: Versions of the replacement housing for plics® instruments

- 1 Plastic (single chamber)
- 2 Aluminium (single chamber)
- 3 Stainless steel, precision casting (single chamber housing)
- 4 Stainless steel, electropolished (single chamber)
- 5 Plastic-Aluminium-Stainless steel (double chamber)

3.2 Principle of operation

Area of application

The housing is suitable as replacement unit for the following plics® sensors:

- VEGAPULS series 60
- VEGASON series 60
- VEGAFLEX series 60 and 80
- VEGABAR series 80
- VEGADIF 65
- VEGASWING series 60
- VEGAVIB series 60
- VEGACAL series 60
- VEGACAP series 60
- VEGAMIP series 60

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 of standard instruments 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 %

Lifting and carrying

With an instrument weight of more than 18 kg (39.68 lbs) suitable and approved equipment must be used for lifting and carrying.

4 Mounting

4.1 General instructions

If the housing is defective, it can be replaced by the user.



In Ex applications, only housings with appropriate Ex approval may be used.

If there is no housing available on site, it can be ordered from the responsible VEGA agency.

Assignment

The housings are suitable for all VEGA plics® instruments in the respective version and signal output.

4.2 Mounting preparations

Tools

The following tools are required for dismantling the existing housing and mounting the replacement housing:

- Magnetic screwdriver Torx size T10 or slot 4
- pliers for locking ring (version axle)
- Screwdriver, slot size 1
- Screwdriver slot 4 (with stainless steel single chamber as well as stainless steel and aluminium double chamber housing)

4.3 Dismounting steps existing housing

Dismounting the electronics module

The electronics module is located in the electronics compartment. The below illustrations show the respective position of the electronics compartment in a single or double chamber housing.

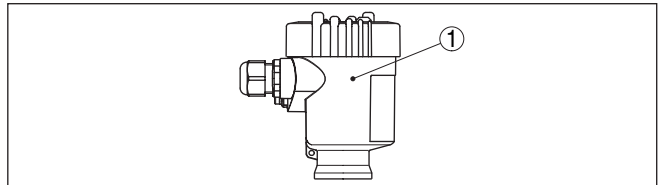


Fig. 2: Single chamber housing

1 Position of the electronics compartment

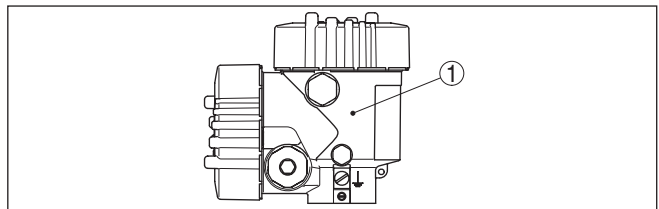


Fig. 3: Double chamber housing

1 Position of the electronics compartment

Proceed as follows:

1. Switch off power supply

2. Remove the housing lid from the electronics compartment, or from the terminal compartment of the aluminium double chamber housing, as the case may be
3. Disconnect the connection cables according to the operating instructions manual of the respective sensor
4. Loosen the two holding screws with a screwdriver (Torx size T 10 or slot size 4)

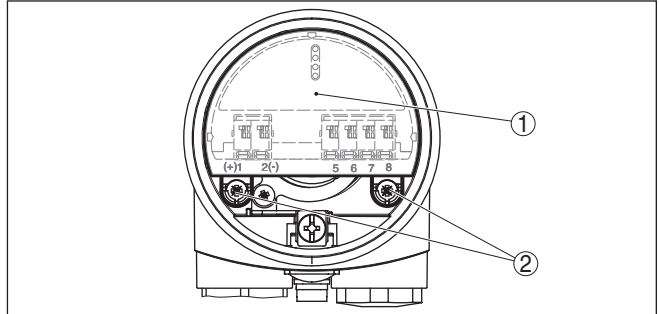


Fig. 4: Loosen the holding screws

- 1 Electronics module
- 2 Screws (2 pcs.)

5. Pull the electronics out by holding the opening levers.

Remove the housing

Proceed as follows:

1. Loosen the screws of the limit bracket and the locking ring with a Phillips screwdriver size 1

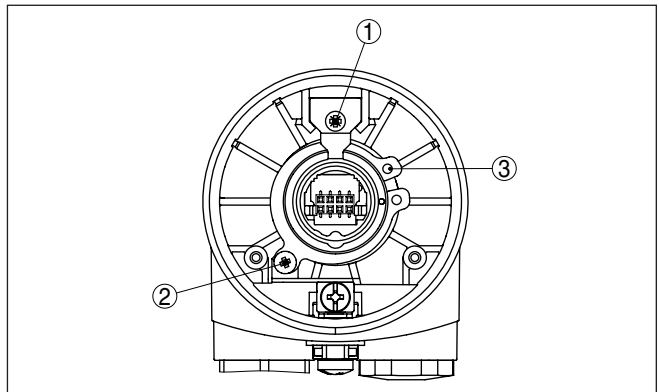


Fig. 5: Position of the screws and locking ring in the example of the plastic housing

- 1 Screw check angle
- 2 Screw locking ring
- 3 Retaining ring

2. Open the locking ring with the pliers and remove it
3. Depending on the housing, loosen locking screw on the base

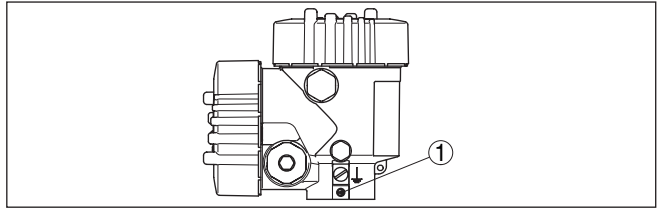


Fig. 6: Double chamber housing

1 Position of the screw

4. Remove the housing

4.4 Mounting steps new housing

1. Place the new housing back on again.
2. Depending on the housing, tighten the locking screw on the base with a screwdriver
3. Insert the locking ring with the pliers
4. Tighten the screws of the limit angle and the locking ring with a Phillips screwdriver size 1
5. Insert the electronics module carefully.



Information:

The electronics of some sensors is connected via a plug. Make sure that the plug is in the correct position. The marking notch must be in position "18.00 h".

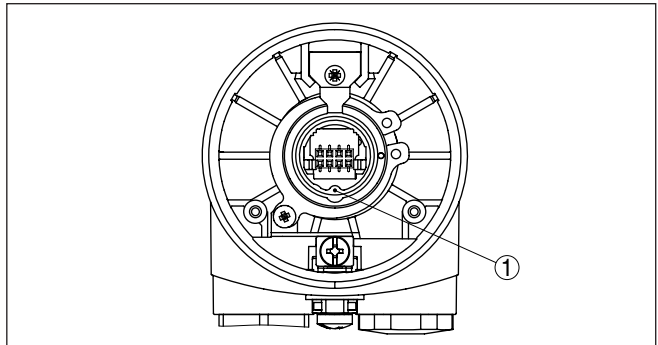


Fig. 7: Plug position

1 Notch

6. Tighten the two holding screws with a screwdriver (Torx size T 10 or slot size 4)
 7. Connect the connection cables according to the operating instructions manual of the respective sensor
 8. Screw the housing lid back on
- The housing exchange is finished.



For Ex applications, the housing exchange must be documented in general, internally.

5 Setup

5.1 Setup

Setup is carried out according to the operating instructions manual of the respective sensor.

6 Maintenance

6.1 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: www.vega.com.

By doing this you help us carry out the repair quickly and without having to call back for needed information.

If a repair is necessary, please 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
- Please contact the agency serving you to get the address for the return shipment. You can find the agency on our home page www.vega.com.

7 Dismount

7.1 Dismounting steps

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

7.2 Disposal

The replacement module consists of materials which can be recycled by specialised recycling companies. We have purposely designed the electronic modules to be easily separable.

WEEE directive 2002/96/EG

This instrument is not subject to the WEEE directive 2002/96/EG and the respective national laws (in Germany e.g. ElektroG). Pass the instrument directly on to a specialised recycling company and do not use the municipal collecting points. These may be used only for privately used products according to the WEEE directive.

Correct disposal avoids negative effects on humans and the environment and ensures recycling of useful raw materials.

Materials: see chapter "*Technical data*"

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

8 Supplement

8.1 Technical data

Technical data

are stated in the operating instructions manual of the respective sensor.



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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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