Supplementary instructions

PLICSLED

Pluggable display module for level switches

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1 About this document

1.1 Function

This supplementary manual, together with the attached operating instructions manual, has all the information you need for quick setup and safe operation. Please read this manual before you start setup.

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.

- **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.

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

The display module PLICSLED is part of a sensor and can be mounted on the electronics module in level switches with relay output.

2.3 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.

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 fulfill this obligation by observing the environmental instructions in this manual:

- Chapter "*Storage and transport*"
- Chapter "*Disposal*"

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3 Product description

3.1 Configuration

Constituent parts

If the sensor is ordered with a display module PLICSLED, this module is already mounted.

The display module can also be retrofitted.

Scope of delivery - display module delivered with the sensor

The scope of delivery encompasses:

- Display module PLICSLED already mounted in the sensor (not connected)
- Suitable housing lid
- Bag with connection cable and double wire end sleeves
- Documentation
  - a device operating instructions manual
  - This supplementary operating instructions

Scope of delivery - retrofit set, display module

The scope of delivery encompasses:

- Display module PLICSLED
- Bag with connection cable and double wire end sleeves
- Documentation
  - This supplementary operating instructions

Note:

You have to order the housing lid suitable for your housing separately.

The following housing lids are suitable for use with the display module PLICSLED.

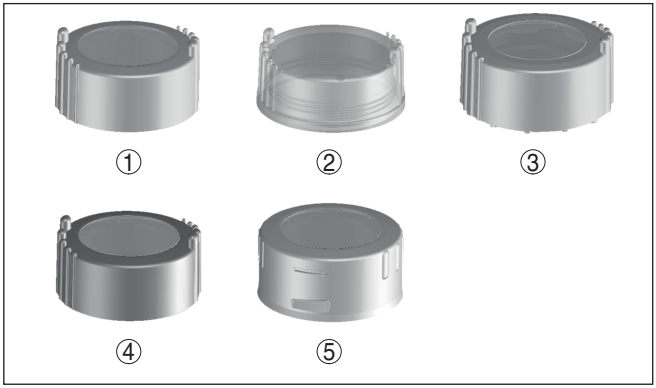

Fig. 1: Possible housing lids for use with the display module PLICSLED

1 Housing lid - plastic, with inspection window
2 Housing lid - plastic, transparent
3 Housing lid - Aluminium, with inspection window
4 Housing lid - stainless steel precision casting, with inspection window
5 Housing lid - stainless steel electropolished, with inspection window

3.2 Principle of operation

Area of application

To have the switching status of the sensor clearly displayed, you can install the display module PLICSLED.

With the transparent lid, the signal lamp of PLICSLED is also visible from the side.

The display module PLICSLED is suitable for all level switches with relay output. Two different versions are available.

- Signal colour - green/red
- Signal colour - green/yellow

The display module can be used on the following limit switches.

- VEGASWING 61, 63, 66
- VEGAVIB 61, 62, 63
- VEGAWAVE 61, 62, 63
- VEGAMIP R61, R62
- VEGACAP 62, 63, 64, 65, 66, 67, 69

3.3 Storage and transport

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.

Storage and transport temperature

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

4 Connecting to power supply

4.1 Preparing the connection

The display module PLICSLED can only be used on electronics versions with relay output. For further information see also chapter "*Technical data*".

When ordered with a sensor, the PLICSLED is only set in place on the sensor. The connection cables still have to be connected with double wire end sleeves.

Also follow the instructions in the operating instructions manual of the sensor.

You need the following tools for electrical connection:

- Flat headed screwdriver 3 mm (0.12 in)
- Ferrule pliers

The following mounting accessories are enclosed with the display module:

- Double wire end sleeves
- Connection cable (grey)

4.2 Connection procedure

1. Open housing lid
2. Connect the connection cables on the electronics module according to the operating instructions manual of the corresponding sensor.
3. Take note of the following wiring plan.

   Two wires must be connected to each terminal. Use the enclosed double wire end sleeves.

   Check if the cable ends are sitting firmly in the double wire end sleeves by pulling lightly on the connection cables.
4. Connect the connection cables of the display module PLICSLED to the electronics module according to the following wiring diagram.

   Check if the cable ends are inserted firmly in the terminals by pulling lightly on the connection cables.

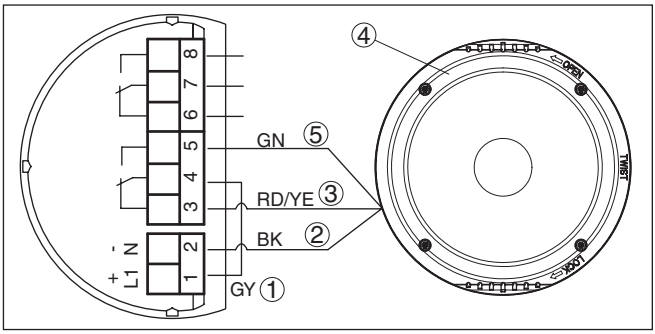

Fig. 2: Connection of the display module

1 *Connection cable (GY = grey) - between terminal 1 and 4*
2 *Connection cable (BK = black) - to terminal 2*
3 *Connection cable (RD = red or YE = yellow) - to terminal 3*
4 *Display module PLICSLED*
5 *Connection cable (GN = green) - to terminal 5*

Note:
On the version with signal colour green/red, the connection cable (3) is red (RD), whereas on the version with signal colour green/yellow, the connection cable (3) is yellow (YE).

5. Place the display module PLICSLED (1) onto the electronics

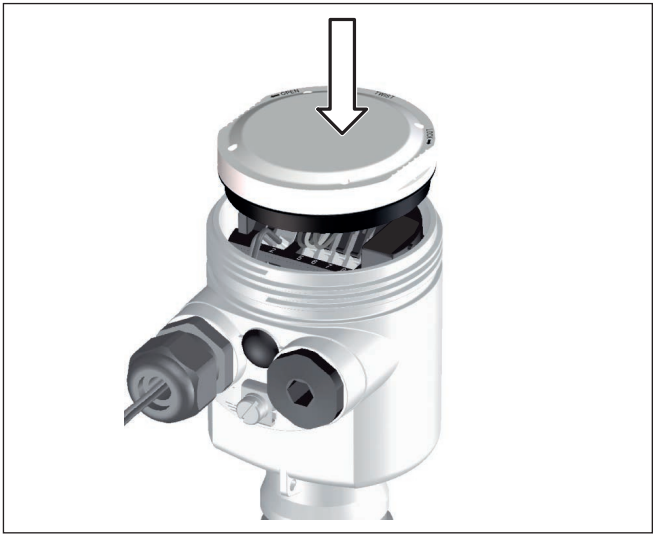

Fig. 3: Insert display module

6. Close housing lid

5 Setup

5.1 Setup

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

The display module PLICSLED immediately displays the switching status of the sensor.

Housing lid

You have to use a housing lid fitting to the housing version.

If you want to retrofit a display module PLICSLED, you have to state the housing version of your sensor when ordering.

- Plastic housing - transparent lid (plastic) or plastic lid with inspection window
- Stainless steel housing, precision casting - metal lid (stainless steel, precision casting) with inspection window of glass
- Stainless steel, electropolished - metal lid (stainless steel, electropolished) with inspection window of glass
- Aluminium die-cast housing - metal lid (Aluminium die-casting) with inspection window of glass

With a transparent plastic lid, the control lamp of PLICSLED is also visible from the side.

Signal colours - display module

The display modules PLICSLED are available in two different versions.

- Signal colour - green/red
- Signal colour - green/yellow

Green stands generally for a safe switching condition. Yellow or red signal the unsafe condition.

6 Maintenance

6.1 Instrument repair

You can find a repair form as well as detailed information on how to proceed at www.vega.com/downloads and "*Forms and certificates*".

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.

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

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 old instrument properly, please contact us concerning return and disposal.

WEEE directive 2002/96/EG
This instrument is not subject to the WEEE directive 2002/96/EG and the respective national laws. 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.

8 Supplement

8.1 Technical data

Technical data

All technical data are listed in the operating instructions manual of the respective sensor.

General data	
Material	
– Housing	ABS
– Light guide surface	PMMA
Display element	LED with light guide
Weight	approx. 100 g (0.22 lbs)

Process conditions	
Ambient temperature	-40 … +80 °C (-40 … +176 °F)
Vibration resistance	5 g (EN 60721-3-4/Kl. 4M8)
Shock resistance	50 g (EN 60721-3-6/Kl. 6M4)

Voltage supply	
Operating voltage	20 … 253 V AC/DC (50/60 Hz)
Power consumption	0.8 W/2 VA - at 253 V AC

Electrical protective measures	
Protection rating	
– unassembled	IP 30
– mounted in the housing without lid	IP 30
Overvoltage category	III
Protection class	
– With metal housing	I
– With plastic housing	II
Degree of soiling	2

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8.2 Dimensions

Display module PLICSLED

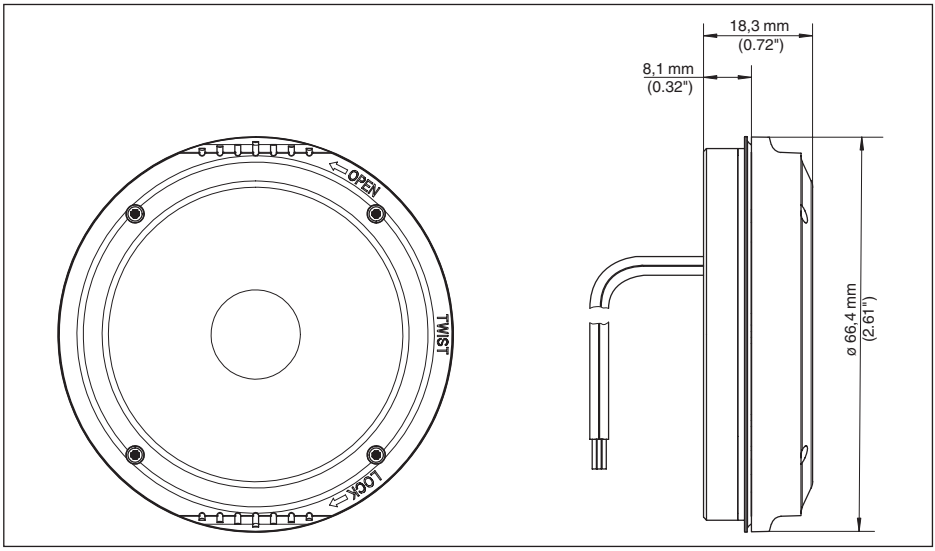

Fig. 4: Dimensions - display module PLICSLED

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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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