# Safety instructions

# Display and adjustment module PLICSCOM

Intrinsic safety


Document ID: 52136

## Contents



Supplementary documentation:

- Operating instructions Display and adjustment module PLICSCOM
- Certificate of Conformity IECEx TUN 16.0002U (Document ID: 52137)

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## 1 Area of applicability

These safety instructions apply to the display and adjustment module PLICSCOM according to the Certificate of Conformity IECEx TUN 16.0002U (certificate number on the type label) and to all instruments with the safety instruction (52136).

The classification as well as the respective standards are stated in the Certificate of Conformity:

- IEC 60079-0: 2017 (Edition 7.0)
- IEC 60079-11: 2011 (Edition 6.0)
- Ex ia IIC Ga, Gb, Gc

In the following, all above mentioned versions are called PLICSCOM. If parts of these safety instructions refer only to certain versions, then these will be mentioned explicitly with their type code.

## 2 General information

The display and adjustment module PLICSCOM takes over the task of the display and adjustment of the VEGA instrument.

The PLICSCOM is suitable for installation as display and adjustment module in VEGA instruments of the plics and plicsplus product families with intrinsically safe communication circuit with

- the protective level Ex ia of instrument category EPL Ga, Ga/Gb, Ga/Gc, Gb, Gc
- the protective level Ex ib of instrument category EPL Gb, Gb/Gc
- the protective level Ex ic of instrument category EPL Gc

When mounted in a VEGA instrument with intrinsically safe communication circuit, the PLICSCOM are suitable for use in hazardous atmospheres of all combustible substances of explosion groups IIA, IIB and IIC.

When mounted in a VEGA instrument with intrinsically safe communication circuit, the PLICSCOM are suitable for use in firedamp-protected plants as well as their above-ground facilities in which a high risk due to firedamp and/or combustible, dust-generating bulk solids exists.

## 3 Important specification in the type code

**PLICSCOM(*).ab**

| Position | | Feature | Description |
|---|---|---|---|
| a | character not selectable | X | |
| b | Version | B | Basic model |
| | | W | Basic model; with Bluetooth, magnetic pen operation |

**PLICSCOM installed in certified, intrinsically safe VEGA instruments**

| Position | Feature | Description |
|---|---|---|
| Display and adjustment module PLICSCOM | X | without |
| | A | mounted |
| | K | mounted; with Bluetooth, magnetic pen operation |
| | B | Laterally mounted |
| | L | laterally mounted; with Bluetooth, magnetic pen operation |

## 4 Special operating conditions

The following overview lists all special features of PLICSCOM.

**Ambient temperature**

You can find the details in chapter " *Thermal data*" of these safety instructions.

## 5 Important information for mounting and maintenance

**General instructions**

The following requirements must be fulfilled for mounting, electrical installation, setup and maintenance of the instrument:

- The staff must be qualified according the respective tasks
- The staff must be trained in explosion protection
- The staff must be familiar with the respectively valid regulations, e.g. planning and installation acc. to IEC 60079-14
- Make sure when working on the instrument (mounting, installation, maintenance) that there is no explosive atmosphere present, the supply circuits should be voltage-free, if possible.
- The instrument has to be mounted according to the manufacturer specifications, the Certificate of Conformity and the valid regulations and standards
- Modifications on the instrument can influence the explosion protection and hence the safety, therefore repairs are not permitted to be conducted by the end user
- Modifications must only be carried out by employees authorized by VEGA company
- Use only approved spare parts
- Components for installation and connection not included in the approval documents are only permitted if these correspond technically to the latest standard mentioned on the cover sheet. They must be suitable for the application conditions and have a separate certificate. The special conditions of the components must be noted and if necessary, the components must be integrated in the type test. This applies also to the components already mentioned in the technical description.
- Vessel installations and probable flow must be taken into account

**Mounting**

Keep in mind for instrument mounting

- Mechanical damage on the instrument must be avoided
- Mechanical friction must be avoided
- Close the housing lid (s) up to the stop before starting operating, to ensure the IP protection rating specified on the type label

**Intrinsic safety "i"**

- Valid regulations for connection of intrinsically safe circuits, e.g. proof of intrinsic safety according to IEC/EN 60079-14 must be observed
- The instrument is only suitable for connection to certified, intrinsically safe instruments
- When connecting an intrinsically safe instrument to an non-intrinsically safe circuit, the instrument must be no longer used in intrinsically safe circuits

## 6 Safe operating mode

**General operating conditions**

- Do not operate the instrument outside the electrical, thermal and mechanical specifications of the manufacturer

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## 7 Installation/construction

The display and adjustment module must only be mounted and used in certified VEGA instruments with the respective mechanical, electrical, intrinsically safe connection in the VEGA housing.

Proceed as follows:

- Unscrew the lid of the VEGA instrument
- Place the display and adjustment module on the electronics in the desired position and turn it to the right until it snaps in.
- Tighten the housing lid of the inspection window and probably lock with the lid locking of the VEGA instrument

Disassembly is carried out in reverse order.

Make sure that the intrinsically safe display and adjustment module PLICSCOM which was operated on non-intrinsically safe circuits is no longer used in intrinsically safe instrument.


*Fig. 1: Installing the display and adjustment module in the electronics compartment of the single chamber housing*

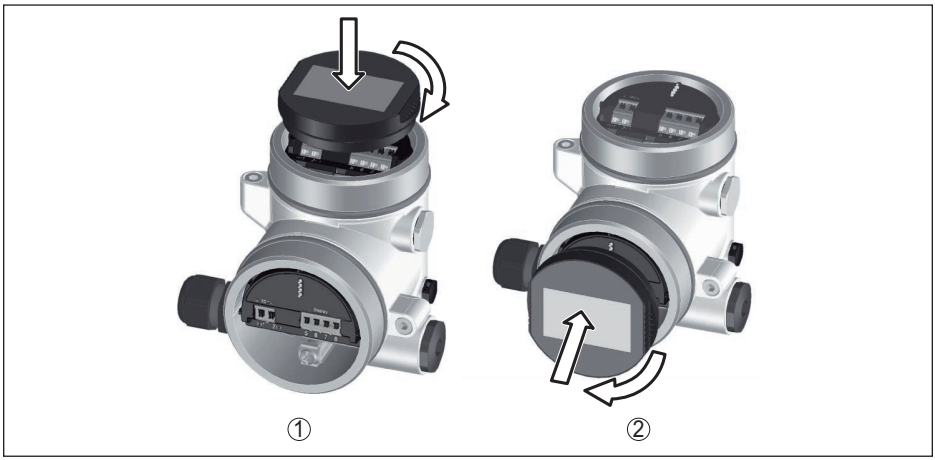


*Fig. 2: Installing the display and adjustment module in the double chamber housing*

*1 In the electronics compartment*
*2 In the connection compartment (with Ex-d-ia versions not possible)*

## 8 Electrical data

**PLICSCOM(*).** or used in an intrinsically safe VEGA instrument**

| | |
|---|---|
| Power supply and signal circuit: (contact paths) | In type of protection intrinsic safety Ex ia IIC<br>$U_i \leq 6$ V DC<br>$P_i \leq 350$ mW<br>$C_i$ = negligibly small<br>$L_i$ = negligibly small<br>The display and adjustment module PLICSCOM is suitable for installation in VEGA instruments with a respectively communication circuit (sliding contacts). |

## 9 Thermal data

| | |
|---|---|
| Zulässige Umgebungstemperatur | -40 … +80 °C |
| Max. surface temperature with intrinsic safety "Ex ia" | Ambient temperature +34 K |
| Max. surface temperature with intrinsic safety "Ex ic" | Ambient temperature +3 K |

In mounted condition, the respective temperature classes and permissible ambient temperatures of the VEGA instrument and the display and adjustment module PLICSCOM must be taken into account and maintained.

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