



## OPTIBAR 5060 / 7060 Supplementary Instructions

Display and adjustment module with Bluetooth for  
OPTIBAR 5060 and 7060

Intrinsic safety

ATEX: II 1G, 2G, 3G Ex ia IIC Ga, Gb, Gc

IECEX: Ex ia IIC Ga, Gb, Gc



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## 1.1 General information

The display and adjustment module with Bluetooth is suitable for installation in OPTIBAR 5060 and 7060 pressure and differential pressure transmitters with intrinsically safe communication circuit with:

Protective level	ATEX: Instrument category	IECEX: Equipment protection level (EPL)
Ex ia	1G, 1/2G, 1/3G, 2G, 3G	Ga, Ga/Gb, Ga/Gc, Gb, Gc
Ex ib	2G, 2/3G	Gb, Gb/Gc
Ex ic	3G	Gc
Ex ia	1D, 1/2D, 1/3D	Da, Da/Db, Da/Dc
Ex ib	2D, 2/3D	Db, Db/Dc
Ex ic	3D	Dc

Table 1-1: Protection types and categories

When mounted in an OPTIBAR 5060 and 7060 device with intrinsically safe communication circuit, the display and adjustment module is suitable for use in hazardous atmospheres of all combustible substances of explosion groups IIA, IIB and IIC.

When mounted in an OPTIBAR 5060 and 7060 device with intrinsically safe communication circuit, the display and adjustment module is suitable for use in hazardous atmospheres of all combustible, dust generating bulk solids of explosion groups IIIA, IIIB and IIIC.

When mounted in an OPTIBAR 5060 and 7060 device with intrinsically safe communication circuit, the display and adjustment module is 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.

The operating instructions as well as the installation regulations and standards that apply for explosion protection of electrical systems must always be observed.

The installation of potentially explosive systems must always be carried out by qualified personnel.

## 1.2 EU conformity

These safety instructions apply to the display and adjustment module PLICSCOM with Bluetooth functionality, in following referred as display and adjustment module, according to EU type approval certificate TÜV 15 ATEX 161127 U (certificate number on the type label).

The classification as well as the respective standards are stated in the EU type approval certificate:

- EN IEC 60079-0: 2018
- EN 60079-11: 2012
- II 1G, 2G, 3G Ex ia IIC Ga, Gb, Gc

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

### 1.3 Approval according to the IECEx scheme

These safety instructions apply to the display and adjustment module PLICSCOM with Bluetooth functionality, in following referred as display and adjustment module according to the Certificate of Conformity IECEx TUN 16.0002U (certificate number on the type label).

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 before mentioned versions are called display and adjustment module. If parts of these safety instructions refer only to certain versions, then these will be mentioned explicitly with their type code.

### 1.4 Safety instructions

Assembly, installation, start-up and maintenance may only be performed by **personnel trained in explosion protection!**



**CAUTION!**

*The operator or his agent is responsible for observing any additional standards, directives or laws if required due to operating conditions or place of installation.*

## 2.1 Type code

Two variants of display and adjustment module with Bluetooth, defined by the type code, can be installed in certified OPTIBAR 5060 and 7060 devices:

Position	Type code	Description
Display and Adjustment Module	K	Mounted (top); Bluetooth
	L	Mounted (side); Bluetooth

Table 2-1: Variants of the display and adjustment module with Bluetooth

## 2.2 Flammable products

### Atmospheric conditions:

An explosive atmosphere is a mixture of air and flammable gases, vapours, mists or dusts under atmospheric conditions. It is defined by the following values

$T_{atm} = -20...+60^{\circ}\text{C} / -4...+140^{\circ}\text{F}$  and  $P_{atm} = 0.8...1.1 \text{ bar} / 11.6...15.9 \text{ psi}$ .

Operation outside the specified above standard atmospheric conditions is permitted only via risk assessment of the user and additional measures, as necessary.

### Operating conditions:

Outside of atmospheric conditions, the explosion protection according to directive 2014/34/EU (ATEX) – regardless of the zone assignment – is not applicable due to the lack of key safety data.

## 2.3 Operating conditions



### **DANGER!**

*Do not operate the instrument outside the electrical, thermal and mechanical specifications.*

You can find details in chapter "Electrical data", "Thermal data" and chapter "Installation" of these supplementary instructions.

## 2.4 Electrical data

Display and adjustment module used in an intrinsically safe OPTIBAR 5060 and 7060 device	
Power supply and signal circuit (contact paths)	In ignition protection type intrinsic safety Ex ia IIC, Ex ia IIIC
	$U_i = 6 \text{ V DC}$
	$P_i = 350 \text{ mW}$
	$C_i = \text{negligibly small}$
	$L_i = \text{negligibly small}$
The display and adjustment module is suitable for installation in OPTIBAR 5060 and 7060 devices with a respectively communication circuit (sliding contacts).	

Table 2-2: Electrical data for display and adjustment module

## 2.5 Thermal data

Display and adjustment module thermal data	
Permissible ambient temperature	-40...+80°C / -40...+176°F
Max. surface temperature with intrinsic safety "Ex ia"	Ambient temperature +34K
Max. surface temperature with intrinsic safety "Ex ic"	Ambient temperature +3K

Table 2-3: Thermal data for display and adjustment module

In mounted condition, the respective temperature classes and permissible ambient temperatures of the OPTIBAR 5060 and 7060 device and the display and adjustment module must be taken into account and maintained.

### 3.1 Installation

**CAUTION!**

*The manufacturer is not liable for any damage resulting from improper use or use other than the intended purpose. This applies in particular to hazards due to insufficient corrosion resistance and suitability of the materials in contact with product.*

Mounting and setup must be carried out according to the applicable installation standards (e.g. EN 60079-14 or IEC 60079-14) by qualified personnel trained in explosion protection. The information given in the manuals and the supplementary instructions must be observed at all times.

### 3.2 Mechanical installation

The following requirements must be fulfilled for mounting of the OPTIBAR 5060 and 7060 devices:

**DANGER!**

*Make sure when working on the OPTIBAR 5060 and 7060 devices (mounting, installation, maintenance) that there is no explosive atmosphere present and supply circuits are voltage-free.*

- The OPTIBAR 5060 and 7060 device has to be mounted according to the manufacturer specifications, the EU type approval certificate and the valid regulations and standards
- 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
- Close the housing lid (s) up to the stop before starting operating, to ensure the IP protection rating specified on the type label

### 3.3 Electrical installation

The following requirements must be fulfilled for electrical installation of the OPTIBAR 5060 and 7060 devices:

**DANGER!**

*Make sure when working on the OPTIBAR 5060 and 7060 devices (mounting, installation, maintenance) that there is no explosive atmosphere present and supply circuits are voltage-free.*

- The display and adjustment module is only suitable for connection to certified, intrinsically safe OPTIBAR 5060 and 7060 devices
- Valid regulations for connection of intrinsically safe circuits, e.g. proof of intrinsic safety according to IEC/EN 60079-14 must be observed



- 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.
- Close the housing lid (s) up to the stop before starting operating, to ensure the IP protection rating specified on the type label

**DANGER!**

*When connecting an intrinsically safe display and adjustment module to a non-intrinsically safe circuit, the OPTIBAR 5060 and 7060 device must be no longer used in intrinsically safe circuits and explosive atmosphere.*

### 3.4 Setup and Maintenance

The following requirements must be fulfilled for setup, and maintenance of the OPTIBAR 5060 and 7060 devices:

**DANGER!**

*Make sure when working on the OPTIBAR 5060 and 7060 devices (mounting, installation, maintenance) that there is no explosive atmosphere present and supply circuits are voltage-free.*

- Mechanical damage on the OPTIBAR 5060 and 7060 device must be avoided
- Mechanical friction must be avoided
- 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.
- Modifications on the OPTIBAR 5060 and 7060 device can influence the explosion protection and hence the safety
- Modifications must only be carried out by employees authorized by KROHNE company
- Use only approved spare parts

### 3.5 Mounting the device

The display and adjustment module must only be mounted and used in certified OPTIBAR 5060 and 7060 devices with the respective mechanical, electrical, intrinsically safe connection in the housing.

Proceed as follows:

1. Unscrew the lid of the OPTIBAR 5060 and 7060 device
2. Place the display and adjustment module on the electronics in the desired position ① and turn it to the right until it snaps in ②.
3. Tighten the housing lid with the inspection window and probably lock with the lid locking of the OPTIBAR 5060 and 7060 device

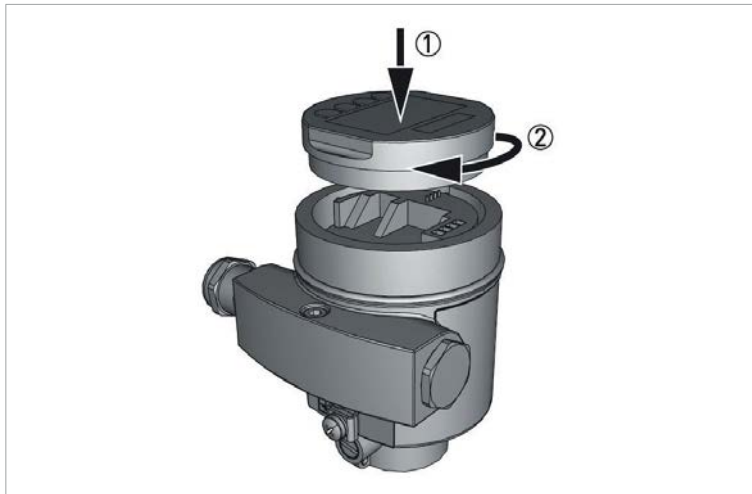


Figure 3-1: Installing the display and adjustment module in the electronics compartment of the single chamber housing

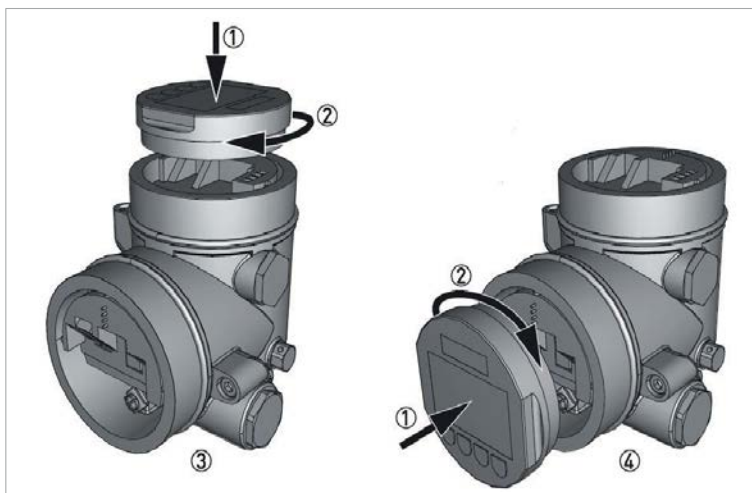


Figure 3-2: Installing the display and adjustment module in the electronics compartment ③ or connection compartment ④ (with Ex-d-ia versions not possible) of the double chamber housing

Disassembly is carried out in reverse order.



**CAUTION!**

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

VEGA



## EU-Konformitätserklärung

EU declaration of conformity  
Déclaration UE de conformité

**Anzeige- und Bedienmodul**  
**Display and adjustment modul**  
**Module de réglage et d'affichage enfichable**

Product	Version
PLICSCOM	

VEGA Grieshaber KG erklärt hiermit in alleiniger Verantwortung, dass die Produkte mit den aufgeführten Richtlinien übereinstimmen. Diese Konformitätserklärung gilt nur in Zusammenhang mit den gültigen VEGA-Betriebsanleitungen und -Sicherheitshinweisen.

VEGA Grieshaber KG hereby declares, in sole responsibility, that the products comply with the listed directives. This declaration of conformity applies only in connection with the valid operating and safety instructions manuals from VEGA.

Par la présente, VEGA Grieshaber KG déclare sous sa seule responsabilité que les produits sont conformes aux directives citées. Cette Déclaration de Conformité est uniquement valable en application avec les notices de mise en service et les consignes de sécurité en cours de validité.

Directive	Issue	Standard
EMC	2014/30/EU	EN 61326-1: 2013 <sup>1)</sup>
LVD	2014/35/EU	EN 61010-1: 2010
RED	2014/53/EU	EN 301489-1 V 2.1.1 (2017-02) EN 301489-17 V 3.1.1 (2017-02) EN 300328 V 2.2.2 (2019-07)
RoHS 2	2011/65/EU	EN 50581: 2012

**Remarks:**

- <sup>1)</sup> Emission: Class B  
Immunity: Industrial Area

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## Konformitätsbescheinigung

Conformity certificate  
Certificat de conformité

**Anzeige- und Bedienmodul**  
**Display and adjustment modul**  
**Module de réglage et d'affichage enfichable**

Product	Version
PLICSCOM	

VEGA Grieshaber KG erklärt hiermit in alleiniger Verantwortung, dass die Produkte mit den aufgeführten Richtlinien übereinstimmen. Diese Konformitätserklärung gilt nur in Zusammenhang mit den gültigen VEGA-Betriebsanleitungen und -Sicherheitshinweisen.

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Directive	Issue	Standard <sup>1)</sup>	Certificate
ATEX	2014/34/EU	EN IEC 60079-0: 2018 EN 60079-11: 2012	TÜV 15 ATEX 161127 U Issue 01

Remarks:

<sup>1)</sup> Die in der Tabelle angegebenen Normenstände können von den Angaben in der EU-Baumusterprüfbescheinigung abweichen. In diesen Fällen erklärt der Hersteller auch die Übereinstimmung mit den Anforderungen der neuen Normenausgaben, da die veränderten Anforderungen der neuen Normenausgaben für dieses Produkt nicht relevant sind.

The standards listed in the table may differ from the information in the EU-Type Examination Certificate. In these cases, the manufacturer declares conformity with the requirements of the new standards because the changed requirements of the new standards are not relevant for this product.

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Les valeurs présentes dans le tableau peuvent dévier des données du attestation d'examen UE de type. Dans ces cas, le fournisseur les déclare conforme aux exigences des nouvelles normes, car les exigences modifiées des nouvelles normes sont insignifiantes pour ce produit.

Anerkennung des Qualitätssicherungssystems / Production Quality Assessment Notification / Reconnaissance du Système-Aualité Notification	TÜV 96 ATEX 1142 Q
Benannte Stelle / Kennnummer Notified body / Identification number Organisme notifié / Numéro d'identification	TÜV Nord Cert./0044

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Entwicklung

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