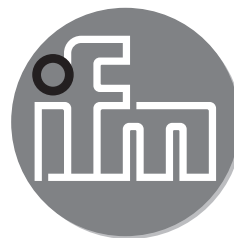




ifm electronic



### **Operating instructions**

(Ex protection related part) for the submersible pressure transmitter PS3xxA according to the EU directive 94/9/EC Annex VIII (ATEX) group II, equipment category 1D / 1G

**UK**

## Remarks for safe use in hazardous areas

### Functions and features

- Use in hazardous areas according to the classification

**I M1**

(Group I, category M1, apparatus for mines susceptible to firedamp).

- Use in hazardous areas according to the classification

**II 1G, II 1/2G, II 2G**

(Group II, category II 1G, II 1/2G, II 2G, apparatus for gas atmosphere).

- Use in hazardous areas according to the classification

**II 1D**

(Group II, category II 1D, apparatus for dust atmosphere).

EC type test certificate

**BVS 10 ATEX E 132 X**  
**IECEx BVS 10.0085 X**

- Marking

 I M1 Ex ia I Ma

 II 1 G Ex ia IIA T4/T5/T6 Ga

 II 1/2G Ex ia IIC T4/T5/T6 Ga/Gb

 II 2 G Ex ia IIC T4/T5/T6 Gb

 II 1D Ex ia IIIC T120°C Da

### Installation / Set-up

The units must only be installed, connected and set up by qualified staff. The qualified staff must have knowledge of protection classes, regulations and provisions for apparatus in hazardous areas.

Check whether the classification (see "Marking" above and marking on the unit) is suitable for the application.

- Connection to intrinsically safe supply isolators (Ex ia).
- Safety-related maximum values

Voltage $U_i$	30 V DC
Current intensity $I_i$	100 mA
Power $P_i$	1 W for groups I and II 750 / 650 / 550 mW for group III
Maximum effective internal capacitance ( $C_i$ )	16.5 nF +0.1 nF/m cable (value see type label on the submersible pressure transmitter)
Maximum effective internal inductance ( $L_i$ )	0 $\mu$ H +1 $\mu$ H/m cable (value see type label on the submersible pressure transmitter)

UK

- Permissible ambient and medium temperature at the mounting location (proper usage)

ATEX category	Ambient and medium temperature
M 1, 1 G, 1/2 G, 2 G (Ma, Ga, Ga/Gb, Gb)	T6: -10 ... +60 °C T5: -10 ... +80 °C T4: -10 ... +85 °C
1 D, 1/2 D, 2 D (Da, Da/Db, Db)	-10 ... +40 °C (750 mW) -10 ... +70 °C (650 mW) -10 ... +85 °C (550 mW)

## Installation remarks / Installation

- Adhere to the respective national regulations and provisions as well as the relevant installation regulations.
- Avoid electrostatic charging on connection cables.
- Prepare the cable with ferrules.
- The cable screen is conductively connected to the housing.
- Ground the cable screen on at least one cable side if the cables are longer than 30 m (2 wires) or leave the building.
- Ensure that no moisture penetrates at the end of the cable.
- Protect units and cables against damage.
- For the connections and the electrical characteristics please see the unit marking or the technical data sheet.

## Special conditions for safe operation

- The unit is suitable for installation through walls which separate zone 0 from zone 1 or zone 20 from zone 21.
- If it is installed through a zone-separating wall, the following protection rating to IEC 60529 must be ensured:
  - IP 67 for zone 0 / zone 1
  - IP 6X for zone 20 / zone 21.

- For the cable pass-through in the zone-separating wall the following protection rating to IEC 60529 must be ensured:
    - IP 67 for zone 0 / zone 1
    - IP 6X for zone 20 / zone 21.
- Integrate an overvoltage protection if the mounting position is less than 1 m away from the transition into zone 0.
- When the submersible pressure transmitter is installed in zone 0 / zone 1 the screen of the connection cable and the metal part of the optional tension clamp must be included in the equalisation of potential of the tank.
  - The manufacturer's indications concerning the use of the submersible pressure transmitter in combination with aggressive / corrosive media and the risk by mechanical impact must be taken into account.

### **Maintenance / Repair**

- The submersible pressure transmitter has to be included in the recurrent pressure test of the tank.
- The unit must not be modified nor can it be repaired. In case of a fault please contact the manufacturer.
- If required, the technical data sheets and EC declarations of conformity can be obtained from the manufacturer. Indicate the article number.

