IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	**IECEx BVS 10.0085X**	Page 1 of 5	Certificate history:
Status:	**Current**	Issue No: 2	Issue 1 (2019-05-08) Issue 0 (2010-11-12)
Date of Issue:	2023-04-05		
Applicant:	**ifm electronic gmbh** Friedrichstrasse 1 45128 Essen **Germany**		
Equipment:	**Intrinsically Safe Submersible Pressure Transmitter type PS3**A**		
Optional accessory:			
Type of Protection:	**Intrinsic Safety "i", Equipment Protection Level (EPL) Ga**		
Marking:	Ex ia IIA T4/T5/T6 Ga Ex ia IIC T4/T5/T6 Ga/Gb Ex ia IIC T4/T5/T6 Gb Ex ia IIIC T135°C Da Ex ia I Ma		

Approved for issue on behalf of the IECEx Certification Body: **Dr Franz Eickhoff**

Position: **Senior Lead Auditor, Certification Manager and officially recognised expert**

Signature: (for printed version)

Date: (for printed version) 2023-04-05

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3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

DEKRA Testing and Certification GmbH
Certification Body
Dinnendahlstrasse 9
44809 Bochum
Germany

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Manufacturer: **ifm prover gmbH**
Waldesch 9
88069 Tettnang
Germany

Manufacturing locations: **ifm prover gmbH**
Waldesch 9
88069 Tettnang
Germany

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :
The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-11:2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-26:2014-10 Edition:3.0	Explosive atmospheres – Part 26: Equipment with Equipment Protection Level (EPL) Ga

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

DE/BVS/ExTR10.0114/02

Quality Assessment Report:

DE/BVS/QAR06.0010/12

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

Type Code

Intrinsically Safe Submersible Pressure Transmitter type PS3**A

In the full designation, the '**' are replaced by characters, specifying pressure range and cable length.

The type code may be extended optionally with order details not relevant for the explosion protection.

Description

The Submersible Pressure Transmitter type PS3**A, transferring measuring data into an intrinsically safe supply and signal circuits (4 - 20 mA current loop), consists of a tubular stainless steel enclosure, which contains printed circuit boards fitted with electronic components embedded in casting compound.

One side of the tubular enclosure is fitted with the process connection, the opposite side with the cable gland for the permanently connected cable of various length with free ends carrying the intrinsically safe supply and signal circuit.

An anchoring cable clamp and a stainless steel weight are provided optionally as mechanical assembly.

SPECIFIC CONDITIONS OF USE: YES as shown below:
The installation of the submersible pressure transmitter in the wall separating areas requiring EPL Ga equipment from less hazardous areas shall provide a degree of protection IP67 according to IEC 60529.

In case of applications of the submersible pressure transmitter in areas requiring EPL Ga or EPL Da equipment the screen of the interconnection cable and the metallic part of the anchoring clamp shall be included in the equipotential-bonding/grounding of the vessel.

The cable gland of the apparatus in the wall separating areas requiring EPL Ga equipment from less hazardous areas shall provide a degree of protection IP67 according to IEC 60529.

Installation of the submersible pressure transmitter in the wall separating areas requiring EPL Ga equipment from less hazardous areas: For functional reasons, the partition wall (membrane) to the wetted area has a wall thickness < 0.2 mm. In the application it has to be ensured, that an impairment of the separation wall e.g. by aggressive media or mechanical hazards is excluded.

Manufacturer's technical information related to use of the submersible pressure transmitter in contact with aggressive / corrosive media and to avoid any risk of mechanical impact shall be taken into account.

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Equipment (continued):

Ratings:

1 Intrinsically safe supply and signal circuit (4 -20 mA current loop)

Parameter	Group I	Group II	Group III
Voltage U_i	DC 30 V	DC 30 V	DC 30 V
Current I_i	100 mA	100 mA	100 mA
Power P_i	1 W	1 W	750/650/550 mW
Effective internal capacitance C_i	16.5 nF + 0.1 nF/m	16.5 nF + 0.1 nF/m	16.5 nF + 0.1 nF/m
Effective internal inductance L_i	0 µH + 1 µH/m	0 µH + 1 µH/m	0 µH + 1 µH/m

2 Ambient temperature range / allocation to apparatus category / Temperature class

Level Probe type	EPL	Ambient and media temperature range [°C]	Temperature code / Surface temperature
PS3**A	Ma	$-30 \le T_a \le +105$	N / A
	Ga, Ga/Gb, Gb	$-30 \le T_a \le +60$	T6
		$-30 \le T_a \le +80$	T5
		$-30 \le T_a \le +105$	T4
	Da, Da/Db, Db	$-30 \le T_a \le +40$ (750 mW)	120 °C
		$-30 \le T_a \le +70$ (650 mW)	120 °C
		$-30 \le T_a \le +100$ (550 mW)	120 °C

Remarks: IEC 60079-11 section 5.6.5 / table 4 is applied. N / A = not applicable

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

- Testing according to current standards.
- The standard IEC 61241-11 has been dropped.
- Modification of the marking for dust applications and extension of the temperature range for dust applications to 135 °C.