An-Institut der TU Bergakademie Freiberg

[1] **EU-TYPE EXAMINATION CERTIFICATE** - Translation

[2] Equipment or protective systems intended for use in potentially explosive atmospheres, Directive 2014/34/EU



[3] EU-type examination certificate number IBExU10ATEX1073 | Issue 2

[4] Product:

Pressure measuring transmitter type SPT-Exi/ CIT-Exi/ CIT2-Exi resp. type PMP-**xx-Exi.yy-zz

Temperature measuring transmitter type STT-Exi/ CTT-Exi and CTT2-Exi resp. type PMT-**xx-Exi.yy-zz

[5] Manufacturer: Prignitz Mikrosystemtechnik GmbH

[6] Address:

Margarethenstraße 61 19322 Wittenberge

Margarethenstraße 61

GERMANY

Level probe

PS-Exi/ CPS-Exi/ CPS2-Exi

resp. PML-**xx-Exi.yy-zz

- [7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- [8] IBExU Institut für Sicherheitstechnik GmbH, Notified Body number 0637 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the essential health and safety requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential test report IB-24-3-0021.

[9] Compliance with the essential health and safety requirements has been assured by compliance with: EN IEC 60079-0:2018 and EN 60079-11:2012

except in respect of those requirements listed at item [18] of the schedule.

- [10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the specific conditions of use specified in the schedule to this certificate.
- [11] This EU-type examination certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
- [12] The marking of the product shall include the following:

SPT-Exi/ CIT*-Exi resp. PMP-**xx-Exi.yy-zz

with flange plug:

🖾 II 1 G Ex ia IIC T4 Ga

other plugs:

🖾 II 1 G Ex ia IIB T4 Ga or II 2G Ex ia IIC T4 Gb

PS-Exi/ CPS*-Exi resp. PML-**xx-Exi.yy-zz:

(Ex) | 1 G Ex ia | IB T4 Ga or | I 2G Ex ia | IC T4 Gb

STT-Exi and CTT*-Exi resp. PMT-**xx-Exi.yy-zz:

(x) II 2 G Ex ia IIC T3 Gb

-40 °C ≤ Ta ≤ +85 °C

An-Institut der TU Bergakademie Freiberg

IBExU Institut für Sicherheitstechnik GmbH Fuchsmühlenweg 7

09599 Freiberg, GERMANY

By order

(Dr.-Ing. P. Cimalla)

IBEXU
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**Ten Sealoo
(Notified Body number 0637)

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Certificates without signature and seal are not valid. Certificates may only be duplicated completely and unchanged. In case of dispute, the German text shall prevail.

Freiberg, 2024-05-13



An-Institut der TU Bergakademie Freiberg

[13] Schedule

[14] Certificate number IBExU10ATEX1073 | Issue 2

[15] Description of product

The pressure measuring transmitter type SPT-Exi/ CIT*-Exi resp. PMP-**xx-Exi.yy-zz and the level probe type SPT-Exi/ CIT*-Exi resp. PMP-**xx-Exi.yy-zz are pressure measuring transducer consisting of a measuring cell and an evaluation electronics arranged on several boards in a high-grade steel enclosure with process tap.

With the temperature transmitter type STT-Exi und CTT*-Exi resp. PMT-**xx-Exi.yy-zz, a temperature sensor is used instead of a measuring cell.

All transmitters are powered by an intrinsically safe power supply.

Category 1 equipment

The measuring cell of the pressure measuring transmitter may be operated in zone 0 at normal atmospheric conditions (temperature from -20 °C to +60 °C, pressure from 0.8 bar to 1.1 bar, content of oxygen about 21 %).

Type code of alternative type designation:

PM*-**xx:

type / material of the pressure or temperature measuring cell

Exi.yy:

type 'intrinsically safe';

reference to type of type examination certificate/approval/area of application

zz:

type of output signal (e.g. "I2" for 4...20 mA two-wire)

Types:

transmitter type /signal	Previous designation	Alternative designation
pressure transmitters		THE RESERVE
pressure transmitter standard	SPT-Exi	PMP-S1xx-Exi.20-zz
pressure transmitter standard with EC 79 for hydrogen applications		PMP-S1xx-Exi.2H-zz
pressure transmitter controller-based	CIT-Exi	PMP-C1xx-Exi.20-zz
pressure transmitter controller-based with EC 79 for hydrogen applications		PMP-C1xx-Exi.2H-zz
pressure transmitter controller-based, enhanced performance	CIT2-Exi	PMP-C2xx-Exi.20-zz
pressure transmitter controller-based, enhanced performance with EC 79 for hydrogen applications		PMP-C2xx-Exi.2H-zz
level probes		
level probe standard	PS-Exi	PML-S1xx-Exi.20-zz
level probe controller-based	CPS-Exi	PML-C1xx-Exi.20-zz
level probe controller-based, enhanced performance	CPS2-Exi	PML-C2xx-Exi.20-zz
temperature transmitters		
temperature transmitter standard	STT-Exi	PMT-S1xx-Exi.20-zz
temperature transmitter standard suitable for hydrogen applications		PMT-S1xx-Exi.2H-zz
temperature transmitter controller-based	CTT-Exi	PMT-D1xx-Exi.20-zz
temperature transmitter controller-based suitable for hydrogen applications		PMT-D1xx-Exi.2H-zz
temperature transmitter controller-based, enhanced performance,	CTT2-Exi	PMT-D2xx-Exi.20-zz
temperature transmitter controller-based, enhanced performance, suitable for hydrogen applications		PMT-D2xx-Exi.2H-zz

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Technical Data

Ambient temperature range:

-40 °C to +85 °C (without zone 0)

Media temperature range:

-40 °C to +100 °C (pressure transmitter) -40 °C to +200 °C (temperature transmitter)

Electrical Data

Supply circuit:

in type of protection intrinsic safety ia IIC

(terminals: +U: -U)

Ui 27 V

125 mA li

Pi 0.85 W

effective internal capacitance

Ci

effective internal inductance

5 nF

negligible

Variation compared to issue 1 of this EU-Type Examination Certificate:

The unmodified devices can be marked with alternative type designations.

Test report [16]

The test results are recorded in the confidential test report IB-24-3-0021 of 2024-05-07.

The test documents are part of the test report and they are listed there.

Summary of the test results

The pressure measuring transmitter SPT-Exi/ CIT-Exi/ CIT2-Exi and the level probe PS-Exi/ CPS-Exi/ CPS2-Exi fulfil the requirements of type of protection intrinsic safety on an electrical apparatus of the Equipment Group II and Category 1 G or 2 G, Explosion Group IIB or IIC and Temperature Class T4. The temperature measuring transmitter STT-Exi/ CTT-Exi and CTT2-Exi fulfil the requirements of type of protection intrinsic safety on an electrical apparatus of the Equipment Group II, Category 2 G, Explosion Group IIC and Temperature Class T3.

[17] Specific conditions of use

None

Essential health and safety requirements

In addition to the essential health and safety requirements (EHSRs) covered by the standards listed at item [9], the following are considered relevant to this product, and conformity is demonstrated in the test report:

None

[19] **Drawings and Documents**

The documents are listed in the test report.

IBExU Institut für Sicherheitstechnik GmbH

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09599 Freiberg, GERMANY

(Dr.-Ing. P. Cimalla)

Freiberg, 2024-05-13