

IBExU Institut für Sicherheitstechnik GmbH

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 **IBExU14ATEX1273 X** | Issue 1
- [4] Product: **Differential pressure transmitters**
Type: AX18-D***
- [5] Manufacturer: BD SENSORS GmbH
- [6] Address: BD-Sensors-Str. 1
95199 Thierstein
GERMANY
- [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-16-3-172.
- [9] Compliance with the essential health and safety requirements has been assured by compliance with: EN 60079-0:2012+A11:2013, 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:

- ⊕ II 1/2G Ex ia IIC T4 Ga/Gb or
- ⊕ II 1G Ex ia IIC T4 Ga (for stainless steel housing)
- ⊕ II 2D Ex ia IIIC T85 °C Db
- ⊕ I M1 Ex ia I Ma (only for stainless steel housing)

IBExU Institut für Sicherheitstechnik GmbH
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By order

Dipl.-Ing. Willamowski



- Seal -
(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, 2017-05-23

[13] **Schedule**

[14] **Certificate number IBExU14ATEX1273 X | Issue 1**

[15] **Description of product**

The differential pressure transmitters AX18-D*** are pressure gauges with different process connections; they consist of a flameproof enclosure of aluminium or stainless steel, which is separated in electronic and terminal compartment. The measured medium, which is present in zone 0, contacts the transmitter via a tube installation and is only with stainless steel in contact. The devices are designed for use in hazardous areas requiring Category M1, 1G, 1/2G or 2D equipment. They are supplied by an intrinsically safe power supply for the category "ia".

Device variants:

- AX18-DPT200 Basic variant as described above
- AX18-DGP200 Single pressure port
- AX18-DGP100 Relative and absolute pressure measurement
- AX18-DAP200 Differential pressure sensor made as absolute pressure cell
- AX18-DLP200 Remote seal (one side)
- AX18-DRP200 Two remote seals with capillaries

Technical data

Ambient temperature range: -40 °C to +60 °C

Electrical data

Supply and signal circuit in type of protection intrinsic safety Ex ia

	Ui	28 V DC
	Ii	93 mA
	Pi	660 mW
effective internal capacitance	Ci	29.7 nF
effective internal inductance	Li	negligible

Variations compared to the basic certificate:

When using the stainless steel housing, the device also meets the requirements of the Equipment Group I.

[16] **Test report**

The test results are recorded in the confidential test report IB-16-3-172 of 2017-05-23.

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

Summary of the test results

The equipment mentioned in fulfils the requirements for devices of Equipment Group I, Category 1M as well as Equipment Group II, Category 1G, 1/2G and 2D in type of protection intrinsic safety 'ia' in for Explosion Groups I, IIC and IIIC.

[17] **Specific conditions of use**

The information contained in the operating safety and assembly instructions and the ambient temperature range from $-40\text{ °C} \leq T_a \leq +60\text{ °C}$ must be observed.

[18] **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.

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