



[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 2

[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-23-3-0073.

[9] Compliance with the essential health and safety requirements has been assured by compliance with:
EN IEC 60079-0:2018 EN 60079-11:2012 EN 50303:2000
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)

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By order

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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, 2023-11-15

[13]

Schedule

[14]

Certificate number IBExU14ATEX1273 X | Issue 2

[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: from -40 °C up to +60 °C

Electrical data:

Supply and signal circuit in type of protection intrinsic safety Ex ia	
	U _i 28 V DC
	I _i 93 mA
	P _i 660 mW
effective internal capacitance	C _i 29.7 nF
effective internal inductance	L _i negligible

Variations compared to the issue 1 of this certificate:

- The differential pressure transmitters AX18-D*** also meet the requirements of the standard EN IEC 60079-0:2018.
- Adjustment of the layout of the EMV 77 board due to the change made to the terminals by the manufacturer of the terminals.

[16]

Test report

The test results are recorded in the confidential test report IB-23-3-0073 of 2023-10-30. The test documents are part of the test report and they are listed there.

Summary of the test results

The equipment mentioned in [4] still fulfils the requirements for devices of Equipment Group I, Category M1 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 °C ≤ Ta ≤ +60 °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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