

[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 **IBExU09ATEX1164** | Issue 2
- [4] Product: **Differential pressure transmitter**
Types: DE49 ## 0 and DE49 ## A
- [5] Manufacturer: Fischer Mess- und Regeltechnik GmbH
- [6] Address: Bielefelder Str. 37a
32107 Bad Salzufen
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-19-3-0051.
- [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 and EN 60079-26:2015
- 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:

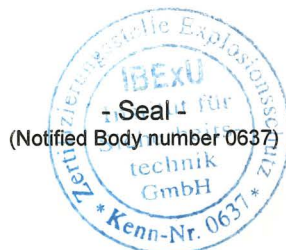
II 1/2G Ex ia IIC T4 Ga/Gb
 II 2D Ex ia IIIC T80 °C Db
-10 °C ≤ Ta ≤ +60 °C

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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, 2019-05-21

[13] **Schedule**

[14] **Certificate number IBExU09ATEX1164** | Issue 2

[15] **Description of product**

The differential pressure transmitter types DE 49 ## 0 and DE49 ## A with process connections is intended for the pressure measurement in potentially explosive areas of category 1/2G under atmospheric conditions (temperature of -10 °C up to +60 °C, pressure of 0.8 bar up to 1.1 bar).

The electronic module is installed in a dissipative plastic enclosure with LCD display and foil buttons and can be used in zone 1 and zone 21, respectively. The measurement device is connected to the zone 0 by pneumatic screw- or plug connection.

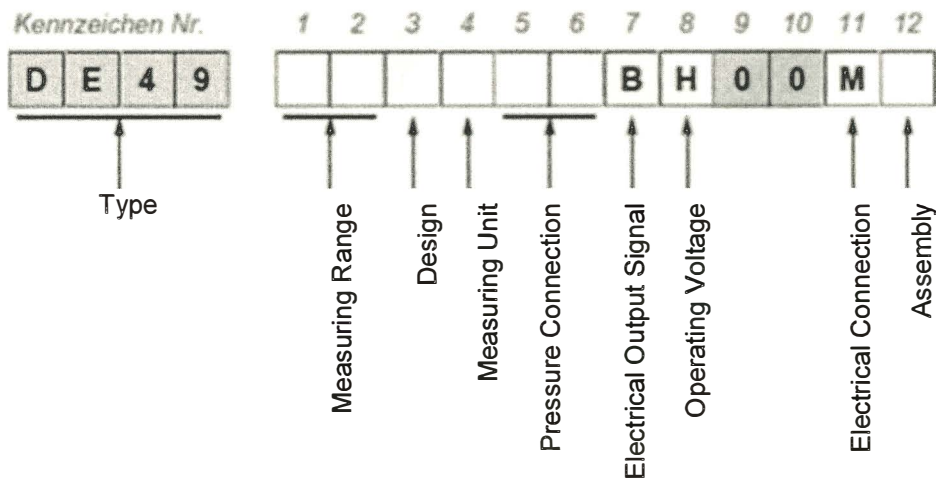
The differential pressure transmitter is supplied via M12 plug connector by an intrinsically safe power supply of category "ia" and provides an electrical output current proportional to the differential pressure.

Ambient temperature range: $-10\text{ °C} \leq T_a \leq +60\text{ °C}$

Supply and signal circuit	type of protection intrinsic safety Ex ia IIC
Circuit diagram (LA1 and LA2)	U_i 30 V
	I_i 100 mA
	P_i 750 mW
Effective internal capacitance	C_i 2.5 nF
Effective internal inductance	L_i negligible

The supply connections have an internal capacitance of max. 5 nF related to the EMC-GND.

Type-key:



- [1,2] Measuring Range, Max. Stat. Operating Pressure
Design 0 : 50 mbar ... 500 mbar or 5 kPa ... 50 kPa
Design A : 250 mbar ... 3 bar
- [3] Design: 0 Standard
Design: A Encapsulated sensor up to 3 bar
- [4] Measuring Unit: 0 – linear/increasing curve (standard), R - extracted root
- [5,6] Pressure Connection:
00 Standard
40 Aluminium screw connection for 6/4 mm hose
41 Aluminium screw connection for 8/6 mm hose
24 Cutting ring screw connection made of 1.4571 for 6 mm pipe (Design A)
25 Cutting ring screw connection made of 1.4571 for 8 mm pipe (Design A)
P6 Pneumatic plug connector for 6/4 mm hose (Design 0)
P8 Pneumatic plug connector for 6/4 mm hose (Design 0)
- [7] Electrical Output Signal: B 4 ... 20 mA

- [8] Operating Voltage: H 24 VDC (12 ... 30 V DC)
- [11] Electrical Connection: M - M12 Plug connection
- [12] Assembly:
 - 0 Rear wall-fastening panel (standard)
 - S Mounting rail assembly
 - T Console installation set
 - W Wall mounting

Variations compared to the issue 1:

Variation 1

There is a new device variant with low pressure measuring ranges up to 100 Pa.

Variation 2

Constructive changes without influence on intrinsic safety.

[16] Test report

The test results are recorded in the confidential test report IB-19-3-0051 of 2019-05-21.

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

Summary of the test results

The differential pressure transmitter types DE 49 ## 0 and DE49 ## A fulfil the requirements in type of protection intrinsic safety 'ia' for a device for the Equipment Group II and Category 1/2G and 2D.

[17] Specific conditions of use

none

[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:

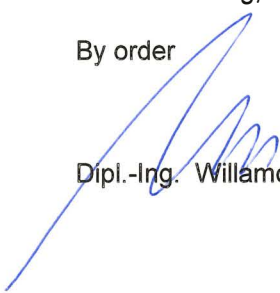
none

[19] Drawings and Documents

The documents are listed in the test report.

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