



Translation

(1) EU-Type Examination Certificate

(2) Equipment and protective systems intended for use in potentially explosive atmospheres, **Directive 2014/34/EU**

(3) **Certificate Number** TÜV 21 ATEX 292131 X **Issue:** 01

(4) for the product: Differential pressure measuring device
DPT-20 -*D/4*-****Z/B-A/H/S/P/F*-*****-****

(5) of the manufacturer: **WIKA Alexander Wiegand SE & Co. KG**

(6) Address: Alexander-Wiegand-Straße 30, 63911 Klingenberg, Germany

Order number: 8003037106

Date of issue: 2021-10-27

(7) The design of this product and any acceptable variation thereto are specified in the schedule to this EU-Type Examination Certificate and the documents therein referred to.

(8) The TÜV NORD CERT GmbH, Notified Body No. 0044, in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and the Council of 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 ATEX Assessment Report No. 21 203 306068.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018

EN 60079-1:2014

EN 60079-11:2012

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 for 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 equipment. These are not covered by this certificate.

(12) The marking of the product shall include the following:



II 1/2 G Ex ia/db IIC T6...T1 Ga/Gb or

II 2 G Ex db ia IIC T6...T1 Gb

TÜV NORD CERT GmbH, Langemarckstraße 20, 45141 Essen, notified by the central office of the countries for safety engineering (ZLS), Ident. Nr. 0044, legal successor of the TÜV NORD CERT GmbH & Co. KG Ident. Nr. 0032

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(13) SCHEDULE

(14) EU-Type Examination Certificate No. TÜV 21 ATEX 292131 X

Issue 01

(15) Description of product:

The differential pressure measuring devices type DPT-20 -*D/4*-*Z/B-A/H/S/P/F*-*-* are used for differential pressure measurement of liquids and gases.

The Differential pressure measuring devices type DPT-20 -*D/4*-*Z/B-A/H/S/P/F*-*-* consist of an electronics housing, a differential pressure measuring element and the process connections.

Optionally, also an indication and operation module may be installed.

Type code:

DPT-20 -*D/4*-*Z/B-A/H/S/P/F*-*-* with the electronics versions

Z - Without additional current output 4 ... 20 mA

B - Additional current output 4 ... 20 mA

A - Two-wire 4 ... 20 mA

H - Two-wire 4 ... 20 mA/HART

S - Two-wire 4 ... 20 mA/HART with SIL qualification

P - Profibus PA

F - Foundation Fieldbus

Electrical data:

DPT-20 with 4 ... 20 mA output signal (A/H/S)

Supply and signal circuit

$U = 9.6 \dots 35 \text{ V d. c.}$

(Terminals 1[+], 2[-] in the electronics

$U_m = 253 \text{ V a. c.}$

compartment of the single chamber housing)

(Terminals 1[+], 2[-] in the terminal compartment
of the double chamber housing)

DPT-20 with additional current output 4 ... 20 mA (B)

Supply and signal circuit I

(Terminals 1[+], 2[-] in the terminal compartment
of the double chamber housing)

$U = 9.6 \dots 35 \text{ V d. c.}$

$U_m = 253 \text{ V a. c.}$

Supply and signal circuit II

(Terminals 17[+], 18[-] in the terminal
compartment of the double chamber housing)

$U = 9.6 \dots 35 \text{ V d. c.}$

$U_m = 253 \text{ V a. c.}$

DPT-20 with Foundation Fieldbus or Profibus PA output signal (F/P)

Supply and signal circuit

(Terminals 1[+], 2[-] in the electronics
compartment of the single chamber housing)

$U = 9 \dots 32 \text{ V d. c.}$

$U_m = 253 \text{ V a. c.}$

(Terminals 1[+], 2[-] in the terminal compartment
of the double chamber housing)

Operation and indication circuit

(Terminals 5, 6, 7, 8 in the electronics
compartment of the single chamber housing)

(Terminals 5, 6, 7, 8 in the terminal compartment
of the double chamber housing)

Only for connection to the associated display
unit DI-PT-E

Schedule to EU-Type Examination Certificate No. TÜV 21 ATEX 292131 X Issue 01

Operation and indication module circuit (Spring contacts in the electronics compartment / terminal compartment of the double chamber housing) For connection to the digital display (AB-Module)

DPT-20 with housing version cable outlet with external housing (A/S)

Measuring sensor circuits (Terminals in the external housing 1 I yellow, 2 I white, 3 I red, 4 I black) In the execution with a cable between the electronics housing and the measuring sensor housing, a length of the provided cable of max. 180 m is permissible.

The intrinsically safe circuits to the measuring sensor are galvanically connected with earth potential.

Thermal data:

DPT-20 with the feature housing version compact (I/M/N):

If the differential pressure measuring devices are used in explosion hazardous areas for EPL Ga/Gb or Gb applications, the permissible temperature range in the area of the electronics/at the measuring sensor dependent on the temperature class has to be taken from the following table:

Temperature class	Ambient temperature range Ta or medium temperature range Tp at the sensor housing and measuring probe
T6	-40 °C ... +55 °C
T5	
T4	-40 °C ... +60 °C
T3	
T2	
T1	

DPT-20 with the features housing version cable outlet with external housing (A/S) and digital display (AB-Module) installed (B/C):

If the differential pressure measuring devices are used in explosion hazardous areas for EPL Ga/Gb or Gb applications, the permissible temperature range in the area of the electronics/at the measuring sensor dependent on the temperature class has to be taken from the following table:

Temperature class	Ambient temperature range Ta at the sensor housing	Ambient temperature range Ta or medium temperature range Tp at the measuring probe
T6	-40 °C ... +60 °C	-40 °C ... +55 °C
T5		-40 °C ... +85 °C
T4		
T3		
T2		
T1		

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DPT-20 with the features housing version cable outlet with external housing (A/S), without digital display (AB-Module) (Z/F):

If the differential pressure measuring devices are used in explosion hazardous areas for EPL Ga/Gb or Gb applications, the permissible temperature range in the area of the electronics/at the measuring sensor dependent on the temperature class has to be taken from the following table:

Temperature class	Ambient temperature Ta at the sensor housing	Ambient temperature Ta or medium temperature Tp at the measuring probe
T6	-50 °C ... +60 °C	-40 °C ... +55 °C
T5		
T4		
T3		-40 °C ... +85 °C
T2		
T1		

(16) Drawings and documents are listed in the ATEX Assessment Report No. 21 203 306068

(17) Specific Conditions for Use:

1. The permissible ambient resp. medium temperature range depends on the variant of the apparatus and on the temperature class, for which the apparatus shall be used (see thermal data).
2. For use as Ga/Gb-apparatus:
 For functional reasons, the partition wall (membrane) to the wetted area has a wall thickness < 1 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.
 For variants with standard process connections:
 The installation of the meter bodies shall provide as a minimum degree of protection IP67 according to IEC 60529 for the process connections and vents.
 For variants with capillary connections:
 The capillary connections are designed to be connected to a capillary with diaphragm seal. The filling holes are intended to bring in a fill fluid.
 To prevent a zone entrainment from Zone 0, the diaphragm seal resp. the diaphragm seal and capillary have to be suitably designed. The pressure transfer system has to be technically tight. The filling hole has to be tightly sealed.
3. At the plastic parts there is a danger of ignition by electrostatic discharge.
 Observe manual of the manufacturer and warning label.
4. At the metallic parts made of light metal there is a danger of ignition by impact or friction.
 Observe manual of the manufacturer.
5. For the execution with separate housing, potential equalization has to exist in the complete course of the erection of the connecting cable between the electronics housing and the measuring sensor housing.
6. The flameproof terminal box of this equipment must be provided with cable entries and filler plugs resp. conduits which are suitably certified according to EN 60079-0 and EN 60079-1.

Schedule to EU-Type Examination Certificate No. TÜV 21 ATEX 292131 X Issue 01

- (18) **Essential Health and Safety Requirements:**
No additional ones.

- End of EU-Type Examination Certificate -