



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 292133 X **Issue:** 01

(4) for the product: Differential pressure measuring device
DPT-20 -*T/2/4*-****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 306064.

- (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 60079-31:2014

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 D Ex ia ta IIIC T135 °C Da or



II 1/2 D Ex ia/tb IIIC T135 °C Da/Db or

II 1/3 D Ex ia/tc IIIC T135 °C Da/Dc or

II 2 D Ex ia tb IIIC T135 °C Db

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 292133 X

Issue 01

(15) Description of product:

The differential pressure measuring devices type DPT-20 -*T/2/4*-****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 -*T/2/4*-****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 -*T/2/4*-****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:

Supply and signal circuit:

$U_n = 9.6 \dots 30 \text{ V d. c.}$

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

$I_n = 4 \dots 22 \text{ mA}$

(Terminals K11[+], K12[-] in the electronics compartment of the 1 chamber housing)

$U_m = 30 \text{ V d. c.}$

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

(Terminals K11[+], K12[-] in the terminal compartment of the 2 chamber housing)

Supply and signal circuit :

$U_n = 9.6 \dots 32 \text{ V d. c.}$

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

$I_n = 4 \dots 11 \text{ mA}$

$U_m = 32 \text{ V d. c.}$

(Terminals K11[+], K12[-] in the electronics compartment of the 1 chamber housing)

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

(Terminals K11[+], K12[-] in the terminal compartment of the 2 chamber housing)

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

Supply and signal circuit I

$U_n = 9.6 \dots 30 \text{ V d. c.}$

(Terminals K11[+], K12[-] in the terminal compartment of the 2 chamber housing)

$I_n = 4 \dots 22 \text{ mA}$

$U_m = 30 \text{ V d. c.}$

Supply and signal circuit II

$U_n = 9.6 \dots 30 \text{ V d. c.}$

(Terminals 7[+], 8[-] in the terminal compartment of the 2 chamber housing)

$I_n = 4 \dots 22 \text{ mA}$

$U_m = 30 \text{ V d. c.}$

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Operation and indication circuit
(Terminals 5, 6, 7, 8 in the electronics compartment of the 1 chamber housing)
(Terminals 5, 6, 7, 8 in the terminal compartment of the 2 chamber housing)

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

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

Measuring sensor circuits
(Terminals 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:

The permissible ambient resp. medium temperature range depending of the EPLs of the device can be taken from the following table:

EPL	Medium temperature range (Sensor)	Ambient temperature range (Electronics housing)
Da	-40 °C ... +70 °C	-40 °C ... +70 °C
Da/Db	-40 °C ... +85 °C	-40 °C ... +70 °C
Da/Dc	-40 °C ... +85 °C	-40 °C ... +70 °C
Db	-40 °C ... +70 °C	-40 °C ... +70 °C

(16) Drawings and documents are listed in the ATEX Assessment Report No. 21 203 306064

(17) Specific Conditions for Use:

- The permissible ambient resp. medium temperature range depends on the EPL's for the apparatus (see thermal data).
The limits of the permissible ambient temperature range may be restricted by the used O-ring material. The used O-ring material is included in the marking. The permissible temperature ranges in dependence of the material have to be taken from the manufacturer's instructions.
- 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 20, 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.

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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 of the pressure transmitters, 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 cable entries and blanking elements in the housing have to be suitably certified for an operating temperature area of -40 °C to +80 °C or the cable entries and blanking elements of the manufacturer have to be used.

(18) Essential Health and Safety Requirements:

No additional ones.

- End of EU-Type Examination Certificate -