

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 20 ATEX 265286 X **issue:** 00

(4) for the product: Pressure transmitter type PASCAL CV4xxx

(5) of the manufacturer: LABOM Mess- und Regeltechnik GmbH

(6) Address: Im Gewerbepark 13
27798 Hude

Order number: 8003016544

Date of issue: 2020-06-30

- (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. 20 203 265286.

- (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 60079-26:2015

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 IIC TX Ga/Gb resp. II 2 G Ex ia IIC TX Gb
II 1/2 D Ex ia IIIC Txx°C Da/Db resp. II 2 D Ex ia IIIC Txx°C Db
(See description of product)

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

The head of the notified body


Roder

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(13) **SCHEDULE**

(14) **EU-Type Examination Certificate No. TÜV 20 ATEX 265286 X issue 00**

(15) Description of product

The pressure transmitter type PASCAL CV4xxx is used for the pressure measurement of gases, vapours and liquids in explosive gas atmospheres or for pressure measurement of explosive dust atmospheres. The measuring signal is transmitted via a 4...20 mA current loop with HART protocol.

Electrical data

Supply and signal circuit

(Terminals resp. plug connector;

+Loop, -Loop, GND) in type of protection Intrinsic Safety Ex ia IIC/IIIC

Maximum values:

$U_i = 30 \text{ V}$

$I_i = 150 \text{ mA}$

$P_i = 1 \text{ W}$

Effective internal capacitance: 15.4 nF

Effective internal inductance: 4 µH

Thermal data

If the pressure transmitter is used in explosion hazardous areas for EPL Ga/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:

	EPL Gb and EPL Ga/Gb	EPL Gb	EPL Ga/Gb
Temperature class	Ambient temperature range	Medium temperature range	Medium temperature range
T1	-40...80 °C	-40...410 °C	-20...60 °C
T2	-40...80 °C	-40...260 °C	-20...60 °C
T3	-40...80 °C	-40...165 °C	-20...60 °C
T4	-40...80 °C	-40...100 °C	-20...60 °C
T5	-40...45 °C	-40...65 °C	-20...52 °C
T6	-40...30 °C	-40...50 °C	-20...40 °C

The measuring sensors are allowed to be operated in an explosion hazardous area for EPL Ga applications, only if atmospheric conditions exist (pressure from 0.8 bar to 1.1 bar).

Schedule to EU-Type Examination Certificate No. TÜV 20 ATEX 265286 X issue 00

If the pressure transmitter is used in explosion hazardous areas for EPL Da/Db or EPL Db applications, the permissible temperature range in the area of the electronics/at the measuring sensor dependent on the surface temperature has to be taken from the following table:

Max. surface temperature without dust layer	EPL Db and EPL Da/Db	
	Ambient temperature range	Medium temperature range
T450 °C	-40...80 °C	-40...420 °C
T300 °C	-40...80 °C	-40...270 °C
T200 °C	-40...80 °C	-40...170 °C
T135 °C	-40...80 °C	-40...105 °C
T100 °C	-40...50 °C	-40...70 °C
T85 °C	-40...35 °C	-40...55 °C

(16) Drawings and documents are listed in the ATEX Assessment Report No. 20 203 265286

(17) Specific Conditions for Use

1. The permissible ambient and medium temperatures have to be taken from the certificate.
2. For EPL Ga/Gb applications the medium tangent materials have to be resistant to the media.
3. Since the intrinsically safe circuit is connected with the earth potential for safety reasons, potential equalization has to exist in the complete course of the erection of the intrinsically safe circuit.
4. The equipment has to be earthed by installation for avoiding of electrostatic charges.
5. The membrane made of titanium has to be protected against mechanical impacts to avoid critical sparks.
6. For Ga/Gb applications, the process connection has to be executed sufficiently tight (IP 66 or IP 67).

(18) Essential Health and Safety Requirements

no additional ones

- End of Certificate -