Translation

(1) EC-Type-Examination Certificate

(2) Equipment and protective systems intended for use in potentially explosive atmospheres, **Directive 94/9/EC**

(3)	**Certificate Number**	**TÜV 13 ATEX 120264 X**
(4)	for the equipment:	Pressure transmitter type PASCAL Ci4
(5)	of the manufacturer:	LABOM Mess- und Regeltechnik GmbH
(6)	Address:	Im Gewerbepark 13 27798 Hude Germany
	Order number:	8000420137
	Date of issue:	2014-03-19

(7) The design of this equipment or protective system and any acceptable variation thereto are specified in the schedule to this EC-Type-Examination Certificate and the documents therein referred to.

(8) The TÜV NORD CERT GmbH, notified body No. 0044 in accordance with Article 9 of the Council Directive of the EC of March 23, 1994 (94/9/EC), certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive. The examination and test results are recorded in the confidential report No. 14 203 120264.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 60079-0:2012 EN 60079-11:2012 EN 60079-26:2007

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-type-examination certificate relates only to the design, examination and tests of the specified equipment in accordance to the Directive 94/9/EC. 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 equipment or protective system must 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 esp. II 2 D Ex ia IIIC Txx°C Db
(See description of equipment)

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

Meyer

Hanover office, Am TÜV 1, 30519 Hanover, Fon +49 (0)511 986 1455, Fax +49 (0)511 986 1590

(13) **SCHEDULE**

(14) **EC-Type-Examination Certificate No. TÜV 13 ATEX 120264 X**

(15) Description of equipment

The pressure transmitter type PASCAL Ci4 is used for the pressure measurement of gases, vapors and liquids in explosive gas atmospheres or for pressure measurement in 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 Only for connection to a certified intrinsically safe circuit Maximum values: U_i = 30 V I_i = 150 mA P_i = 1 W Effective internal capacitance: 9.6 nF Effective internal inductance: 32 µH
Test circuit, galvanically connected to the supply and signal circuit (Terminals resp. plug connector; +Test, -Test)	in type of protection „Intrinsic Safety" Ex ia IIC/IIIC Only for connection to a passive or a suitably certified test device The values mentioned above for U_i, I_i and P_i must not be exceeded, if the values of the supply and signal circuit and of the test circuit are added up.

The connection of the separately mounted display of the manufacturer via a belonging cable of 10 m length is permissible.

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 tables:

CI4xxx – Option S66

Temperature class	Ambient temperature range (electronics, zone 1)	Medium temperature range (measuring sensor, zone 0)
T4	-40 °C ... +85 °C	-20°C ... +60 °C
T5	-40 °C ... +61 °C	-20°C ... +60 °C
T6	-40 °C ... +46 °C	-20°C ... +50 °C

CI4xxx – Options S62

Temperature class	Ambient temperature range (electronics, zone 1)	Medium temperature range (measuring sensor, zone 0)
T4	-40 °C ... +85 °C	-20°C ... +60 °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).

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

CI4xxx – Option S66

Temperature class	Ambient temperature range (electronics)	Medium temperature range (measuring sensor)
T4	-40 °C ... +85 °C	-40 °C ... +116 °C
T5	-40 °C ... +61 °C	-40 °C ... +81 °C
T6	-40 °C ... +46 °C	-40 °C ... +66 °C

CI4xxx – Option S62

Temperature class	Ambient temperature range (electronics)	Medium temperature range (measuring sensor)
T4	-40 °C ... +85 °C	-40 °C ... +89 °C

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 tables:

CI4xxx – Option S66

Max. surface temperature without dust layer	Ambient temperature range (electronics, zone 21)	Medium temperature range (measuring sensor, zone 20 or zone 21)
135 °C	-40 °C ... +85 °C	-40°C ... +121 °C
100 °C	-40 °C ... +66 °C	-40°C ... +86 °C
85 °C	-40 °C ... +51 °C	-40°C ... +71 °C

CI4xxx – Option S62

Max. surface temperature without dust layer	Ambient temperature range (electronics, zone 21)	Medium temperature range (measuring sensor, zone 20 or zone 21)
135 °C	-40 °C ... +85 °C	-40°C ... +94 °C

(16) The test documents are listed in the test report No. 14 203 120264

(17) Special conditions for safe use

1. 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.
2. At the plastic parts there is a danger of ignition by electrostatic discharge. Observe manual of the manufacturer and warning label.
3. For EPL Ga/Gb applications the medium tangent materials have to be resistant to the media. Observe manual of the manufacturer.

(18) Essential Health and Safety Requirements

no additional ones