



Translation

(1) **EC TYPE-EXAMINATION CERTIFICATE**

(2) Equipment or protective system intended for use in potentially explosive atmospheres - **Directive 94/9/EC**



(3) EC-Type Examination Certificate Number

TÜV 02 ATEX 1971 X

(4) Equipment: Pressure transmitter type Universal C**0*1

(5) Manufacturer: LABOM Meß- und Regeltechnik GmbH

(6) Address: Im Gewerbepark 13
D-27798 Hude

(7) This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) The TÜV NORD CERT GmbH & Co. KG, TÜV CERT-Certification Body, notified body number N° 0032 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 N° 02YEX550223.

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

EN 50014:1997

EN 50020:2002

EN 50284:1999

(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 EEx ia IIC T6 resp. T5 resp. T4

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Head of the
Certification Body



TÜV NORD CERT

Hanover, 2003-02-28

(13)

SCHEDULE

(14) **EC-TYPE EXAMINATION CERTIFICATE N° TÜV 02 ATEX 1971 X**

(15) Description of equipment

The pressure transmitter type Universal C**0*1 is used for the pressure measurement of gases, vapours and liquids in vessels and pipes. The housing may be mounted in explosion hazardous areas that require apparatus of the category 2. The pressure port may be mounted in explosion hazardous areas that require apparatus of the category 1.

The maximum permissible ambient temperature at the housing T_a , the maximum permissible medium temperature at the pressure port T_M and the temperature class have to be taken from the following table:

T_a [°C]	T_M [°C]	Temperature class
70°C	40°C	T6
70°C	60°C	T5
70°C	60°C	T4

Extension of the temperature range: see (17) "Special conditions for safe use"

Electrical data

Supply- and signal circuits in type of protection „Intrinsic safety“ EEx ia IIC
(Plug connection resp. terminals) only for connection to certified intrinsically safe circuits

sum of the maximum values of the intrinsically safe circuits:

$$\begin{aligned} U_i &= 30 \text{ V} \\ I_i &= 100 \text{ mA} \\ P_i &= 0,7 \text{ W} \end{aligned}$$

In dependence of the signal mode of the pressure transmitter the following effective internal capacitances result:

signal mode	C_i [nF]	L_i [µH]
2-wire 4 ... 20 mA	33	20
3-wire 0 (2) ... 10 V	43	30
3-wire 0 (4) ... 20 mA	43	30

(16) Test documents are listed in the test report No. 02YEX550223.

(17) Special conditions for safe use

1. The pressure port of the pressure transmitter type Universal C**0*1 is allowed to be operated in an explosion hazardous area, which requires apparatus of the category 1 only if atmospheric conditions exist (Temperature from -20°C to 60°C, pressure from 0,8 bar to 1,1 bar).

If the explosion hazardous atmosphere at the pressure port does not require apparatus of the category 1, the maximum permissible ambient temperatures at the pressure port t_M and the temperature class have to be taken from the following table:

T_a [°C]	T_M [°C]	Temperature class
70°C	55°C	T6
70°C	70°C	T5
70°C	70°C	T4

The permissible operating pressures have to be taken from the manufacturers data (manual) if no explosion hazardous gas mixtures exist.

2. Since the intrinsically safe circuits are connected with the earth potential for safety reasons, potential equalization has to exist in the complete course of the erection of the intrinsically safe circuits.

(18) Essential Health and Safety Requirements

no additional ones

Translation

1. SUPPLEMENT

to Certificate No.

Equipment:

Manufacturer:

Address:

Order number:

Date of issue:

TÜV 02 ATEX 1971 X

Pressure transmitter type Universal C**0*1

LABOM Mess- und Regeltechnik GmbH

Im Gewerbepark 13

27798 Hude

8000392383

2011-06-27

In future, the pressure transmitter type Universal C**0*1 is manufactured according to the documents listed in the test report.

The changes refer to the internal construction the marking.

This reads as follows:

II 1/2 G Ex ia IIC T4/T5/T6 Ga/Gb

II 2 G Ex ia IIC T4/T5/T6 Gb

The maximum permissible ambient temperature at the housing T_a and the maximum permissible medium temperature at the pressure port T_M have to be taken from the following tables:

Pressure transmitter with marking II 1/2 G Ex ia IIC T4/T5/T6 Ga/Gb

T_a [°C]	T_M [°C]	Temperature class
70°C	40°C	T6
70°C	60°C	T5
70°C	60°C	T4

All other data apply unchanged for this supplement.

The equipment according to this supplement meets the requirements of these standards:

EN 60 079-0:2009

EN 60 079-11:2007

EN 60 079-26:2007

EN 1127-1:2007

(16) The test documents are listed in the test report No. 11 203 084907.

1. Supplement to Certificate No. TÜV 02 ATEX 1971 X

(17) Special conditions for safe use

1. The pressure port of the pressure transmitter type Universal C**0*1 is allowed to be operated in an explosion hazardous area, which requires apparatus of category 1 only if atmospheric conditions exist (Temperature from -20°C to 60°C, pressure from 0.8 bar to 1.1 bar). If the explosion hazardous atmosphere at the pressure port does not require apparatus of category 1, the maximum permissible ambient temperatures at the pressure port T_M have to be taken from the following table:

Pressure transmitter with marking II 2 G Ex ia IIC T4/T5/T6 Gb

T_a [°C]	T_M [°C]	Temperature class
70°C	55°C	T6
70°C	70°C	T5
70°C	70°C	T4

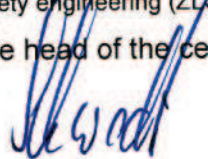
The permissible operating pressures have to be taken from the manufacturers data (manual) if no explosion hazardous gas mixtures exist.

2. Since the intrinsically safe circuits are connected with the earth potential for safety reasons, potential equalization has to exist in the complete course of the erection of the intrinsically safe circuits.

(18) Essential Health and Safety Requirements no additional ones

TÜV NORD CERT GmbH, Langemarckstraße 20, 45141 Essen, accredited 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 certification body



Schwedt

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