



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 1879 X

(4) Equipment: Pressure transmitter type UDS7EExia

(5) Manufacturer: Barksdale Control Products GmbH

(6) Address: Dorn-Assenheimer Str. 27
D-61203 Reichelsheim

(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° 02YEX164291.

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

EN 50014:1997

EN 50020:1994

EN 50284:1999

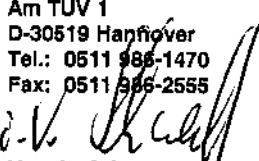
(10) If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

(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 T4**

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Head of the
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TÜV NORD CERT

Hanover, 2002-09-13

(13)

SCHEDULE

(14) **EC-TYPE EXAMINATION CERTIFICATE N° TÜV 02 ATEX 1879 X**

(15) Description of equipment

The pressure transmitter type UDS7EExia is used for the measurement of pressures and for data transfer. The pressure transmitter is equipped with an LCD-display and a plastic foil keyboard.

The measuring media are also allowed to be combustible liquids, gases or vapours.

The pressure port may be mounted in explosion hazardous areas that require apparatus of the category 1., the housing may be mounted in explosion hazardous areas that require apparatus of the category 2.

The maximum permissible ambient temperature at the housing is 80°C.

The maximum permissible ambient temperature at the measuring sensor is 60°C.

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

Electrical data

Supply and signal circuit in type of protection "Intrinsic Safety" EEx ia IIC
 (Pins at connector S1: resp. EEx ia IIB
 1[+Ub], 2[signal] and 3[GND])

only for connection to the 2 channel zener barrier type Z788 according to

EC-Type Examination Certificate

BAS 01 ATEX 7005, connections 1, 2/3 and 4, 2/3

maximum values:

$U_{I1} = 28 \text{ V}$ (supply circuit)

$I_{I1} = 301 \text{ mA}$ "

$U_{I2} = 9,56 \text{ V}$ (4-20mA signal circuit)

$I_{I2} = 49 \text{ mA}$ "

For safety reasons, both circuits are considered as interconnected.

effective internal inductance: 37 μH

effective internal capacitance: 35 nF

Namur digital circuits in type of protection "Intrinsic Safety" EEx ia IIC
 (Pins at connector S2 resp. EEx ia IIB
 1 [SP1+], 2 [SP1-],
 3 [SP2+], 4 [SP2-])

only for connection to a certified intrinsically safe circuit
 maximum values per circuit:

$U_i = 10,5 \text{ V}$

$I_i = 13 \text{ mA}$

$P_i = 34 \text{ mW}$

The effective internal capacitances and inductances are negligibly small.

The intrinsically safe circuits are safe galvanically separated from earth potential



(16) Test documents are listed in the test report No. 02 YEX 164291.

(17) Special conditions for safe use

The pressure port of the pressure transmitter type UDS7EExia 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 does not require apparatus of the category 1, the maximum permissible ambient temperature at the pressure port is 80°C

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

(18) Essential Health and Safety Requirements

no additional ones