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 08 ATEX 553918 X**

(4) for the equipment: Pressure transmitter type Precont ExMT... , ExKT... and ExCT...

(5) of the manufacturer: ACS CONTROL SYSTEM GmbH

(6) Address: Lauterbachstraße 57
84307 Eggenfelden

Order number: 80000553918

Date of issue: 2008-05-23

(7) This equipment or protective system and any acceptable variation thereto are specified in the schedule to this 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. 08 203 553918.

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

EN 60079-0:2006 EN 60079-11:2007 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:

⟨Ex⟩ II 1 G Ex ia IIC/IIB Tx bzw. II 1/2 G Ex ia IIC/IIB Tx bzw. II 2 G Ex ib IIC/IIB Tx [see (15)]

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

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(13) **S C H E D U L E**

(14) **EC-Type Examination Certificate No. TÜV 08 ATEX 553918 X**

(15) Description of equipment

The pressure transmitter types Precont ExMT... , ExKT... and ExCT... with integrated analog evaluation electronics (Voltage output 0 ... 10 V or current output 4 ... 20 mA) are used for continuous pressure measurement of gases, vapours and fluids in tanks and pipes.

Electrical data

Supply and signal circuits ..... in type of protection Intrinsic Safety Ex ia IIC/IIB
(Cable connection or plug connection)
only for the connection of certified intrinsically safe circuits
Sum of the maximum values of the intrinsically safe circuits:
U_i = 30 V
I_i = 300 mA
P_i = 0.9 W

Pressure transmitter	with current output	with voltage output
effective internal capacitance	9 nF	25.5 nF
effective internal inductance	103 µH	103 µH

In addition of the above stated values, also the capacitances and inductances of the connection line (length L) have to be taken into consideration at devices with prefabricated connection cable.

L_i = L x 1.0 µH/m
C_i = L x 45 pF/m (wire/wire)
C_i = L x 105 pF/m (wire/screen)

The marking and the permissible ambient and medium temperature range have to be taken from the following tables.

Table 1
Explosion hazardous area for category 1 apparatus at the sensor and at the housing

Marking	Ambient and medium temperature range
II 1 G Ex ia IIC/IIB T6	-20 °C ... 50 °C
II 1 G Ex ia IIC/IIB T1 ... T4	-20 °C ... 60 °C

Table 2
Explosion hazardous area
- for category 1 apparatus at the sensor and
- for category 2 apparatus at the housing

Marking	Ambient and medium temperature range
II 1/2 G Ex ia IIC/IIB T6	-20 °C ... 50 °C
II 1/2 G Ex ia IIC/IIB T1 ... T4	-20 °C ... 60 °C

Table 3
Explosion hazardous area for category 2 apparatus at the sensor and at the housing

Marking	Ambient and medium temperature range (Connection with plug connector)	Ambient and medium temperature range (Direct cable connection)
II 2 G Ex ib IIC/IIB T6	-40 °C ... 50 °C	-40 °C ... 50 °C
II 2 G Ex ib IIC/IIB T4	-40 °C ... 85 °C	-40 °C ... 70 °C

(16) Test documents are listed in the test report No. 08 203 553918.

(17) Special conditions for safe use

1. The pressure transmitter types Precont ExMT... , ExKT... and ExCT... may be operated in explosion hazardous areas that require apparatus of category 1 only if atmospheric conditions exist (Temperatures: See tables 1 and 2, pressure from -0.8 bar to 1.1 bar).
   At use in explosion hazardous areas, which require apparatus of category 2, the permissible temperatures may be taken from table 3.
   Then, the measuring circuit may be connected to an intrinsically safe circuit of protection level ib.
   The permissible operation pressures and temperatures for none-explosive gas mixtures have to be taken from the manufacturer specifications (operation instruction)

2. At the plastic parts of the pressure transmitter there is a danger of ignition by electrostatic charges; the hints in the manual have to be observed.

(18) Essential Health and Safety Requirements

no additional ones