



Translation

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

- (2) Equipment and protective systems intended for use in potentially explosive atmospheres - **Directive 94/9/EC**
- (3) EC-Type Examination Certificate Number



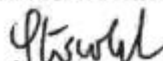
TÜV 02 ATEX 1924 X

- (4) Equipment: Temperature Head Transmitter type ExKTM_A0
- (5) Manufacturer: ACS CONTROL SYSTEM GmbH
- (6) Address: Lauterbachstraße 57
D-84307 Eggenfelden
- (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 & 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° 02YEX187208.
- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- EN 50 014: 1997 EN 50 020: 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 G resp. II 2(1) G EEx ia IIC T4 or II 2 G EEx ib IIC T4

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Head of the
Certification Body



Hanover, 2002-09-30

(13)

SCHEDULE

(14) **EC-TYPE EXAMINATION CERTIFICATE N° TÜV 02 ATEX 1924 X**

(15) Description of equipment

The Temperature Head Transmitter type ExKTM_A0 is used for the determination of temperatures of a connected 2-wire- or 3-wire-Pt100-resistance. The temperature signal will be converted into a 4 ... 20 mA signal.

The permitted ambient temperatures in the range of the Temperature Head Transmitter (T_a) in dependence on the device category and the category of the intrinsically safe circuits have to be taken from the following table:

Device category	Category of the intrinsically safe circuits	T_a
1	ia	-20°C ... +60°C
2(1)	ia	-40°C ... +85°C
2	ib	-40°C ... +85°C

In explosion hazardous areas which require apparatus of category 1 only process pressures of 0,8 bar to 1,1 bar are permitted.

Electrical data

Supply and
signal circuit
(Terminals 1 and 2)

in type of protection Intrinsic Safety EEx ia IIC
resp. EEx ib IIC
only for the connection of a certified intrinsically safe circuit
Maximum values:
 $U_i = 27.3 \text{ V}$
 $I_i = 140 \text{ mA}$
 $P_i = 0.9 \text{ W}$
effective internal capacitance: 4 nF
effective internal inductance: 110 μH



Sensor circuit in type of protection Intrinsic Safety EEx ia IIC
(Terminals 4, 5, 6) resp. EEx ib IIC

only for the connection of a Pt100 sensor

Maximum values:

$U_o = 5.9 \text{ V}$

$I_o = 35 \text{ mA}$

$R = 756 \text{ } \Omega$

$P_o = 163 \text{ mW}$

Characteristic line: trapezoidal

EEx ia/ib	IIC	IIB
maximum external inductance	1 mH	2 mH
maximum external capacitance	1.7 μF	7.6 μF

(16) Test documents are listed in the test report No.: 02YEX187208.

(17) Special conditions for safe use

1. At the chargeable plastic parts of the Temperature Head Transmitter type ExKTM_A0 there is a danger of ignition by electrostatic discharge for apparatus of category 1. The operator has to ascertain the suitability of this apparatus for his use.
2. The Temperature Head Transmitter type ExKTM_A0 has to be installed in such a way that a degree of protection of min. IP20 according to IEC 529 is reached.

(18) Essential Health and Safety Requirements

no additional ones