Translation

# (1) EC-Type Examination Certificate

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

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|---|---|---|
| (3) | **Certificate Number** | **TÜV 07 ATEX 554256 X** |
| (4) | for the equipment: | Conductive electrode probes SAT/STK/SLK/SST |
| (5) | of the manufacturer: | **ACS-CONTROL-SYSTEM GmbH** |
| (6) | Address: | Lauterbachstraße 57<br>84307 Eggenfelden |
| | Order number: | 8000554256 |
| | Date of issue: | 2008-08-22 |

(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. 07 203 554256.

(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:

**II 1 G Ex ia IIB/IIC T6...T1 resp.**
**II 1/2 G Ex ia IIB/IIC T6...T1 resp.**
**II 2 G Ex ib IIB/IIC T6...T1**

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

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

(14) **EC-Type Examination Certificate No. TÜV 07 ATEX 554256 X**

(15) Description of equipment

The apparatuses SAT/STK/SLK/SSL are conductive electrode probes for the detection of limit levels in explosion hazardous areas, which requires an apparatus of category 1, category 1/2 or category 2. The apparatus consists of up to seven partly isolated electrode bars which are connected with a data analyser resp. a transmitter. As soon as the electrical conductive filling makes a connection between the electrodes resp. between electrode and the electrical conductive vessel- resp. the pipeline wall a measurable current flows which causes a reaction of the data analyser resp. of the transmitter.

Technical data:

**Power Receiver**

For II 1 G Ex ia IIC/IIB T6...T1 or II 1/2 G Ex ia IIC/IIB T6..T1:

Circuits — in type of protection Intrinsic Safety Ex ia IIC/IIB
only for the connection to certified intrinsically safe circuits
max. ratings:

$U_i$ = 12.9 V
$I_i$ = 15.5 mA
$P_i$ = 116 mW
$C_i$ = 1 nF
$L_i$ = 1 µH

For II 2 G Ex ib IIC/IIB T6...T1:

Circuits — in type of protection Intrinsic Safety Ex ia IIC/IIB
only for the connection to certified intrinsically safe circuits
max. ratings:

$U_i$ = 12.9 V
$I_i$ = 15.5 mA
$P_i$ = 116 mW
$C_i$ = 1 nF
$L_i$ = 1 µH

| **Restrictions by type** | **ambient temperature range** |
|---|---|
| Zone 0 | $-20\ °C \le T_a \le +60\ °C$ |
| temperature class T6 | $-20\ °C \le T_a \le +80\ °C$ |
| temperature class T5...T1 | $-20\ °C \le T_a \le +95\ °C$ |

| **Restrictions by material** | **ambient temperature range** |
|---|---|
| adapter housing PP | $+5\ °C \le T_a \le +100\ °C$ |

| **Restrictions by type** | **process temperature range** |
|---|---|
| Zone 0 | $-20\ °C \le T_a \le +60\ °C$ |
| temperature class T6 | $-40\ °C \le T_a \le +80\ °C$ |
| temperature class T5 | $-40\ °C \le T_a \le +95\ °C$ |
| temperature class T4 | $-40\ °C \le T_a \le +130\ °C$ |
| temperature class T3...T1 | $-40\ °C \le T_a \le +150\ °C$ |

| Restrictions by type | process temperature range |
|---|---|
| type SAT – electrode isolation PA | - 10 °C ≤ $T_a$ ≤ + 100 °C |
| type SAT – electrode isolation E-CTFE | - 15 °C ≤ $T_a$ ≤ + 150 °C |
| type STK – electrode isolation PA | - 10 °C ≤ $T_a$ ≤ + 100 °C |
| type STK – electrode isolation E-CTFE | - 15 °C ≤ $T_a$ ≤ + 150 °C |
| type SLK | - 40 °C ≤ $T_a$ ≤ + 130 °C |
| type SST | - 10 °C ≤ $T_a$ ≤ + 120 °C |

| Restrictions by material | process temperature range |
|---|---|
| process connection POM | - 40 °C ≤ $T_a$ ≤ + 110 °C |
| process connection PP | + 5 °C ≤ $T_a$ ≤ + 100 °C |

(16) Test documents are listed in the test report No. 07 203 554256.

(17) Special conditions for safe use

- Are the apparatuses mounted in the partition wall between areas in which different or the same categories are required the requirements of clause 4.6 of EN 60079-26:2007 shall be fulfilled. The manual of the manufacturer shall be considered.
- The apparatus shall only stay inside an hazardous atmosphere when connected to the data analyser, connected to the equipotential bonding.
- For the erection of the apparatus the requirements of the EN 60079-14 shall be fulfilled.
- The following is valid for apparatuses with plastic parts resp. surfaces: Danger by electrostatic discharges. Avoid rubbing, do not clean dry, do not mount in the pneumatic delivery flow, protect electrode bars resp. – ropes against swinging.
- The intrinsically safe circuit has to be mounted equipotential free.

(18) Essential Health and Safety Requirements

none