

Translation

(1) **EC-Type Examination Certificate**

TÜV NORD

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



- (3) **Certificate Number** TÜV 07 ATEX 347150 X
- (4) for the equipment: Temperature Transmitter FlexTop
type: 2201
- (5) of the manufacturer: Baumer A/S
- (6) Address: Jacob Knudsens Vej 14
DK-8230 Aabyhoej
Denmark
- Order number: 8000347150
- Date of issue: 2007-07-03

- (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. 07203347150.
- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- EN 60079-0:2006** **EN 50020:2002** **EN 60079-26:2004**
- (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 1G Ex ia IIC T5/T6

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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(13) SCHEDULE

(14) EC-Type Examination Certificate No. TÜV 07 ATEX 347150 X

(15) Description of equipment

FlexTop 2201 is a 4...20 mA loop-powered transmitter for Pt 100 sensors. Either 2-, 3-, or 4-wire sensors can be used. For 2-wire sensors an automatic balancing of the sensor cable resistance is possible with shorted sensor cable. The resistance can be manually configured as well.

Using a PC, the Windows-based Flex-programmer and a FlexProgrammer configuring unit, the following parameters can be configured via the output connectors (2-way communication): TAG no., number of wires, cable resistance, error detection level, measuring range/unit, damping offset and status indication.

The transmitter shall be connected through an intrinsically safe barrier module located in safe area. Furthermore the FlexTop units are designed for mounting into a standard metal DIN 43729 "form B" housing.

Type Key

FlexTop 2201 0002 (x)

Where

x = C: Configured according to customer specifications

Technical data:

Intrinsically safe specifications: (Terminal +1 & -2)

$U_i = 28 \text{ V DC}$

$I_i = 100 \text{ mA}$

$P_i = 700 \text{ mW}$

$C_i \leq 10 \text{ nF}$

$L_i \leq 10 \text{ } \mu\text{H}$

Terminals 3, 4, 5 and 6 are designed for connection to "simple apparatus" sensors such as e.g. Pt100 thermo couplers.

Permitted range of the ambient temperature Vital rated values:

T5: $-40 \text{ }^\circ\text{C} < T_{\text{amb.}} < +85 \text{ }^\circ\text{C}$

T6: $-40 \text{ }^\circ\text{C} < T_{\text{amb.}} < +50 \text{ }^\circ\text{C}$

(16) Test documents are listed in the test report No. 07203347150.

(17) Special conditions for safe use

Special requirements in relation to the "X" marking:

- The unit must be connected through an intrinsically safe barrier module located in safe area.

Schedule EC-Type Examination Certificate No. TÜV 07 ATEX 347150 X

- The “FlexProgrammer” configuring unit must not be connected to the transmitter within the hazardous area. The manufacturer's manual must be followed for programming of the unit.
- FlexTop 2201 must be mounted in e.g. an ø80 mm Baumer A/S stainless steel IP 54 housing or a similar standard DIN-B housing.
- Only “simple apparatus” as the Pt100 sensor must be connected to the terminals : 3, 4, 5 and 6.

(18) Essential Health and Safety Requirements

no additional ones