

Translation

TÜV NORD



(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 07 ATEX 347151 X

(4) for the equipment: Temperature Transmitter FlexTop
type: 2211 and 2221

(5) of the manufacturer: Baumer A/S

(6) Address: Jacob Knudsens Vej 14
DK-8230 Aabyhoej
Denmark

Order number: 8000347151

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. 07203347151.
- (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 347151 X

(15) Description of equipment

FlexTop 2211 is a 4...20 mA loop-powered, configurable universal transmitter with galvanic isolation between input and output. The input can be configured for RTD or T/C sensors, resistance or voltage signals. The input terminals are designed for "simple apparatus" sensors. Either 2-, 3-, or 4-wire connection can be selected for the resistance input.

FlexTop 2221 has in addition a HART® communication feature for e.g. on-line process calibration and adjustment.

Both types 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 2211 0002 (x)

FlexTop 2221 0002 (x)

Where

x = C: Configured according to customer specifications

Technical data:

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

$U_i = 30 \text{ V DC}$

$I_i = 100 \text{ mA}$

$P_i = 750 \text{ mW}$

$C_i \leq 5 \text{ nF}$

$L_i \leq 15 \text{ } \mu\text{H}$

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. 07203347151.

(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.
- The "FlexProgrammer" used for configuring the unit must not be connected to the unit within the hazardous area. The manufactures manual must be followed for programming of the unit.

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- FlexTop 2211 and 2221 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” sensors like Pt100 or RTD must be connected to the terminals: 3, 4, 5 and 6.

(18) Essential Health and Safety Requirements

no additional ones