

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 08 ATEX 364662 X

(4) for the equipment: Temperature Transmitter  
FlexTop type: 2202, 2203 and 2204

(5) of the manufacturer: Baumer A/S

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

Order number: 8000364662

Date of issue: 2009-04-07

- (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 364662.
- (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 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

Hanover office, Am TÜV 1, 30519 Hanover, Fon +49 (0)511 986 1455, Fax +49 (0)511 986 1590

## (13) SCHEDULE

### (14) EC-Type Examination Certificate No. TÜV 08 ATEX 364662 X

#### (15) Description of equipment

FlexTop 2202 is a 4...20 mA loop-powered transmitter for Pt 100 sensors. FlexTop 2203 is a 4...20 mA loop-powered transmitter for T/C sensors type B, J, K and S. 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 standard metal DIN "form B" housing.

#### Type Key

FlexTop 2202 0002 (x) or FlexTop 2203 0002 (x) or FlexTop 2204 0002 (x)

where

x = C: Configured according to customer specifications

#### Technical data:

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

Linear zener barrier:

$U_i$ : 28.0 VDC

$I_i$ : 100 mA

$C_i$ : 10 nF

$L_i$ : 10  $\mu$ H

$P_i$ : 0.7 W

Terminals 3, 4, 5 and 6 are designed for connection to "simple apparatus" sensors such as e.g. Pt100 RTD sensor or T/C sensors type B, J, K and S (terminal 3 + 4)

Permitted range of the ambient temperature

Vital rated values:

**T5:**  $-40\text{ °C} < T_{AMB} < +85\text{ °C}$

**T6:**  $-40\text{ °C} < T_{AMB} < +50\text{ °C}$

(16) Test documents are listed in the test report No. 08203364662.

(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" 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.

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- FlexTop 2202, 2203 or 2204 must be mounted in e.g. an d 80 mm Baumer A/S stainless steel IP 54 housing or a similar standard DIN-B housing.
- Only “simple apparatus” as the Pt100 or T/S sensor must be connected to the terminals : 3, 4, 5 and 6.

(18) Essential Health and Safety Requirements

no additional ones