FlexTop 2202

Operating instructions

Field of application

FlexTop temperature transmitter type 2202 is a compact temperature transmitter, designed to be built into the housing of a temperature sensor, like the Baumer CombiTemp.

Safety instruction

This instrument is built and tested according to the current EU-directives and packed in technically safe condition. In order to maintain this condition and to ensure safe operation, the user must follow the hints and warnings given in this instruction.

During the installation the valid national rules have to be observed. Ignoring the warnings may lead to severe personal injury or substantial damage to property.

The product must be operated by trained staff. Correct and safe operation of this equipment is dependent on proper transport, storage, installation and operation.

All electrical wiring must conform to local standards. In order to prevent stray electrical radiation, we recommend twisted and shielded input cables, as also to keep power supply cables separated from the input cables. The connection must be made according to the connecting diagrams.

Before switching on the power supply take care that other equipment is not affected. Ensure that the supply voltage and the conditions in the environment comply with the specification of the device.

Before switching off the supply voltage check the possible effects on other equipment and the processing system.

WARNING

For electrical installation and commissioning of explosion protected devices, the data given in the conformity certificate as also the local regulations for installation of electrical apparatus within explosion protected areas must be considered. The intrinsically safe versions can be mounted in the explosion hazarded area according to its specification only connected to a certified intrinsically safe supply loop with the corresponding electrical values.

Description

The FlexTop temperature transmitter type 2202 is suitable for input from Pt100 RTD sensors.
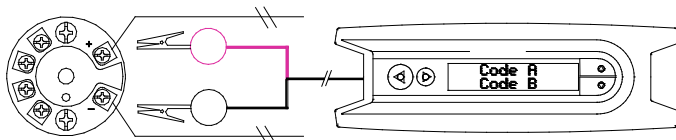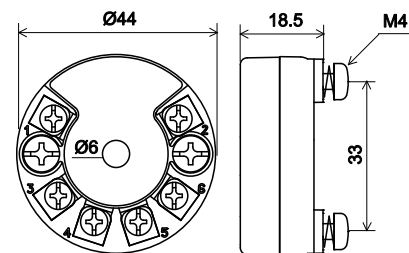
The FlexTop 2202 features a 4 … 20 mA output signal.

Environment	
Humidity	<98 % RH, condensing
Ambient temperature	-40 … 85°C
Storage temperature	-55 … 90 °C
Protection class	IP00
Vibrations	GL, test 2

Configuring with FlexProgrammer 9701

The FlexTop 2202 can be configured using the 4...20 mA cable. The maximum distance depends on the cable type, resistance and capacity. We recommend to use shielded cables.

To be able to configure the FlexTop 2202 with the FlexProgrammer 9701 the dedicated software, FlexProgram, must be loaded on the PC.

During the configuration the new data is, by means of the FlexProgrammer 9701, transferred from the PC to the FlexTop 2202, where it is stored in the internal memory.

Note: During the first power-up after a configuration the power-on time increases to approx. 10 sec.

Dimensions

WARNING

This product contains no replaceable parts.
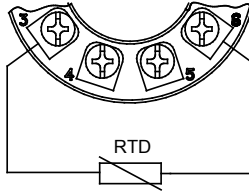In case of malfunction the product must be shipped to Baumer for repair
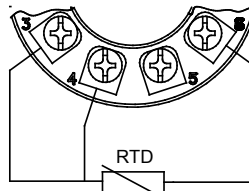
FlexTop 2202

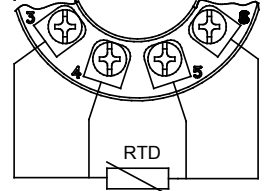## Electrical installation

RTD - 2-wire

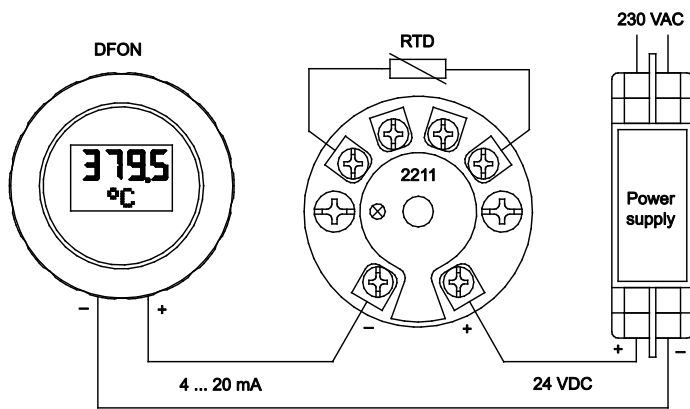No cable compensation
Can be configured

RTD - 3-wire

3-wire cable compensation
Can be configured

RTD - 4-wire

4-wire cable compensation
Can be configured

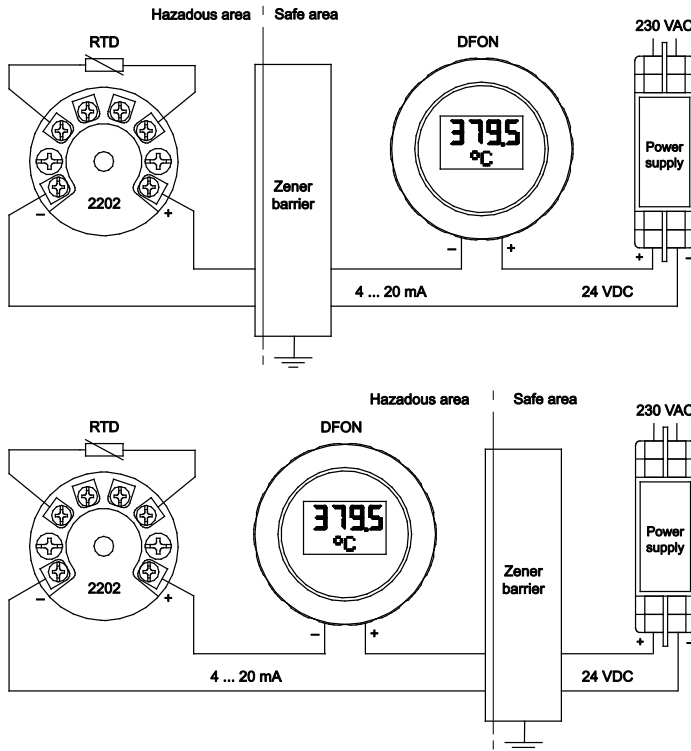## Connection diagram (non-EX application)

DFON

RTD

230 VAC

Power supply

2211

4 ... 20 mA

24 VDC

Hazardous area - ATEX

Connection diagram ATEX

ATEX configuration with FlexProgrammer 9701

The FlexProgrammer 9701 configuring unit must be connected to the FlexTop 2202 or DFON outside the hazardous area.

Configuring procedure:

a) Disconnect mains from the 4...20 mA loop circuit.

b) Disconnect the FlexTop 2202 from the circuitry within the hazardous area.

c) Bring the FlexTop 2202 to the safe area.

d) Connect the FlexProgrammer 9701 and perform the configuring session.

e) Reinstall the FlexTop 2202 in the hazardous area.

f) Connect the power supply to the circuit.

ATEX data for FlexTop™ 2202 Ex ia (2202-0002)

Approval		ATEX II 1G, Ex ia IIC T5/T6
Voltage supply range		8...28 V DC
Internal inductivity	L_i	≤10 µH
Internal capacity	C_i	≤10 nF
Temperature class	T1...T5:	-40 <Tamb <85°C
	T6:	-40 <Tamb <50°C
Barrier data	U_i:	≤28 VDC
	I_i:	≤0,1A
	P_i:	≤0,7 W

The installation of FlexTop 2202 must be done in accordance with prevailing guidelines for zones 0 or 1.

The FlexTop 2202 must be connected in the 4...20 mA loop circuit only.

FlexTop 2202 must be mounted in a housing, e.g. ø80mm stainless steel housing or DIN-B housing.

ATEX data for FlexTop™ 2202 Ex nA (2202-0003)

Approval		ATEX II 3G, Ex nA II T5 X
Voltage supply range	U_i:	8...28 V DC,
	I_i:	<100 mA
Temperature class	T5:	-40 <Tamb <85°C

A FlexTop 2202-0003 may be mounted in hazardous areas in accordance with the current EU-directives.

The product must be mounted in a suitable enclosures fulfilling relevant requirement in EN 60 079-0 among these minimum IP54 ingress protection.

EU-Konformitätserklärung
EU Declaration of Conformity
Déclaration UE de Conformité

Wir erklären in alleiniger Verantwortung, dass die Produkte, auf die sich diese Erklärung bezieht, die grundlegenden Anforderungen der angegebenen Richtlinie(n) erfüllen und basierend auf den aufgeführten Norm(en) bewertet wurden.

We declare under our sole responsibility that the products to which the present declaration relates comply with the essential requirements of the given directive(s) and have been evaluated on the basis of the listed standard(s).

Nous déclarons sous notre seule responsabilité que les produits auxquels se réfère la présente déclaration sont conformes aux exigences essentielles de la directive/ des directives mentionnée(s) et ont été évalués sur la base de la norme/ des normes listée(s).

Hersteller
Manufacturer   Baumer A/S
Fabricant

Bezeichnung   Elektronische Temperaturmessung
Description   Electronic temperature measurement
Description   Electronique mesure de température

Typ(en) / Type(s) /Type(s)

FlexTop 2202-0002.x, FlexTop 2203-0002.x, FlexTop 2204-0002.x
FlexTop 2202-0003.x, FlexTop 2203-0003.x, FlexTop 2204-0003.x

x = beliebige Zahl oder Buchstabe / any figure or letter / n'importe quel nombre ou lettre

Richtlinie(n)   2014/30/EU, 2014/34/EU, 2011/65/EU
Directive(s)
Directive(s)

Norm(en)   EN 61326-1:2013, EN 60079-0:2012+A11:2013, EN 60079-11:2012, EN 60079-15:2010
Standard(s)   EN 60079-26:2007
Norme(s)

Konformitätsbewertungsstelle: TÜV Nord 0044
Conformity assessment center   Am TÜV 1
Centre d'évaluation et de mise en conformité   30519 Hannover

EU- Baumusterprüfbescheinigung: TÜV 08 ATEX 364662 X
EU type examination certificate
Attestation d'examen UE de type

Ort und Datum   Aarhus, 06.07.2016   **Unterschrift/Name/Funktion**
Place and date   Signature/name/function   Ib V. Pedersen
Lieu et date   Signature/nom/fonction   Managing Director

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For further information, non-ATEX DoC, food declarations, etc., please refer to www.baumer.com