



Description

The FlexTop temperature transmitter type 2203 is suitable for input from thermo couple sensors, type B, J, K, N, S and linear voltage.

The FlexTop 2203 features a 4 ... 20 mA output signal.

Environment

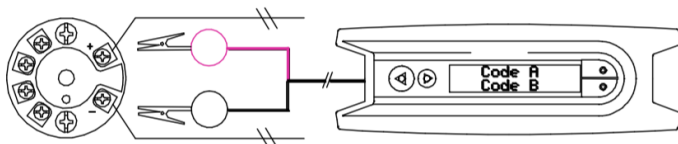
Humidity	<98 % RH, condensing
Ambient temperature	-40 ... 85 °C
Storage temperature	-55 ... 90 °C
Protection class	IP10, terminals IP55, housing
Vibrations	GL, test 2

Configuring with FlexProgrammer 9701

The FlexTop 2203 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 2203 with the FlexProgrammer 9701 the dedicated software, Flex-program, must be loaded on the PC.

During the configuration the new data are, by means of the FlexProgrammer 9701, transferred from the PC to the FlexTop 2203, where they are stored in the internal memory.



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

Field of application

FlexTop temperature transmitter type 2203 is a compact temperature transmitter, designed to be built into the housing of a temperature sensor.

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.

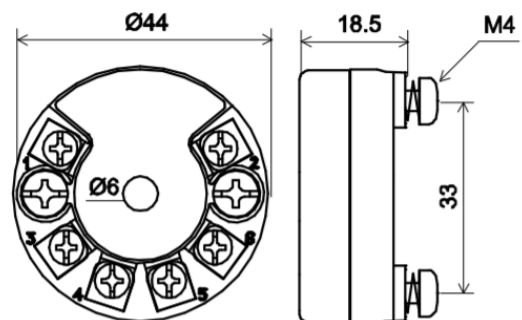
Before switching on the power supply take care that other equipment is not affected. Ensure that the supply voltage and the conditions in the environment comply with the specification of the device.

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 hazardous area according to its specification only connected to a certified intrinsically safe supply loop with the corresponding electrical values.

Dimensions



WARNING

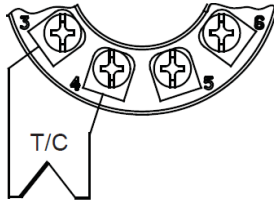
This product contains no replaceable parts.

In case of malfunction the product must be shipped to Baumer for repair

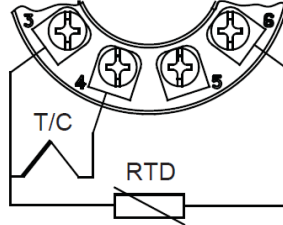
FlexTop 2203

Operating instructions

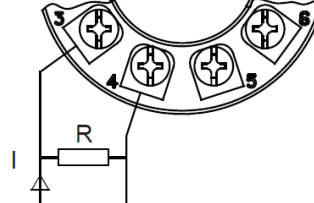
Electrical installation



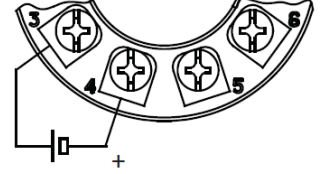
Internal CJC-compensation



External CJC-compensation
No cable compensation
Can be configured

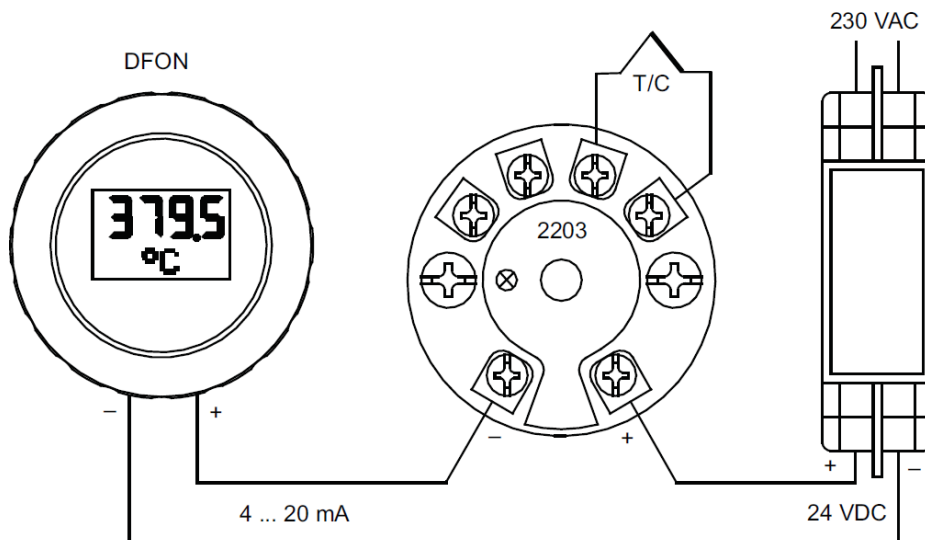


Current measurement



Voltage measurement

Connection diagram (non-EX application)

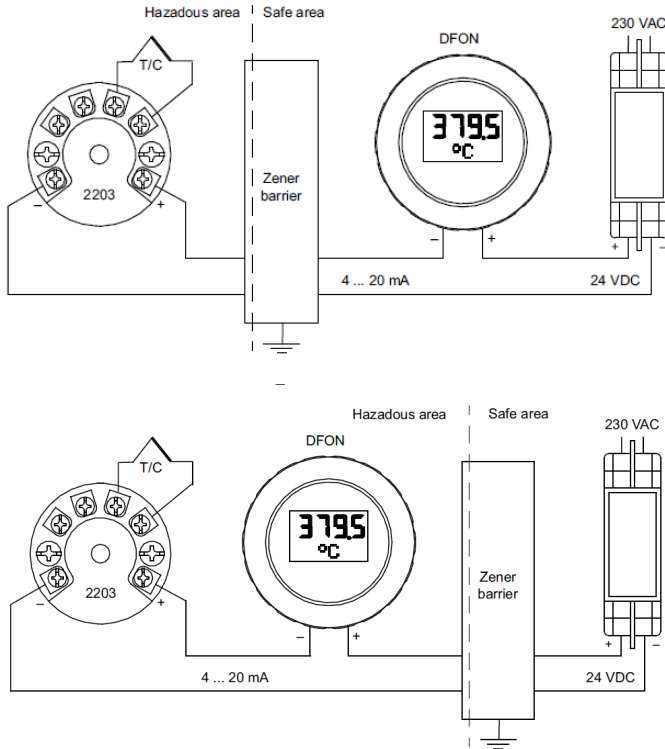


FlexTop 2203

Operating instructions

Hazardous area - ATEX

Connection diagram ATEX



ATEX data for FlexTop™ 2203 Ex ia (2203-0002)

Approval	ATEX II 1G Ex ia IIC T5/T6	
Voltage supply range	8...28 V DC	
Internal inductivity	L_i	$\leq 10 \mu\text{H}$
Internal capacity	C_i	$\leq 10 \text{nF}$
Temperature class	T1...T5:	$-40 < T_{\text{amb}} < 85^\circ\text{C}$
	T6:	$-40 < T_{\text{amb}} < 50^\circ\text{C}$
Barrier data	U_i :	$\leq 28 \text{VDC}$
	I_i :	$\leq 0,1 \text{A}$
	P_i :	$\leq 0,7 \text{W}$

The installation of FlexTop 2203 must be done in accordance with prevailing guidelines for zones 0 or 1.

The FlexTop 2203 must be connected in the 4...20 mA loop circuit only.

FlexTop 2203 must be mounted in a housing, e.g. $\varnothing 80\text{mm}$ stainless steel housing or DIN-B housing.

ATEX data for FlexTop™ 2203 Ex ec (2203-0003)

Approval	ATEX II 3G Ex ec IIC T5 X	
Supply range	U_i :	8...28 V DC
	I_i :	$< 100 \text{mA}$
Temperature class	T5:	$-40 < T_{\text{amb}} < 85^\circ\text{C}$

A FlexTop 2203-0003 may be mounted in hazardous areas in accordance with the current EU-directives.

The product must be mounted in a suitable enclosure fulfilling relevant requirement in EN 60079-0 among these minimum IP54 ingress protection.

ATEX configuration with FlexProgrammer 9701

The FlexProgrammer 9701 configuring unit must be connected to the FlexTop 2203 or DFON outside the hazardous area.

Configuring procedure:

- Disconnect mains from the 4...20 mA loop circuit.
- Disconnect the FlexTop 2203 from the circuitry within the hazardous area.
- Bring the FlexTop 2203 to the safe area.
- Connect the FlexProgrammer 9701 and perform the configuring session.
- Reinstall the FlexTop 2203 in the hazardous area.
- Connect the power supply to the circuit.