Thermometer with connection head

Resistance thermometer
Thermocouples

Description

Thermometer with connection head are used as universal thermometer preferably in processes with liquid- and gas media under low pressure.

The standard head is type B. On customers request other types of connection heads could be delivered. The thermometers are available as resistance thermometer or thermocouples.

As resistance thermometer PT100 or PT1000 sensors in 2-, 3-, 4- or 2x2-wire connection can be used. Thermocouple typeK (NiCr-Ni) is the most common type, if thermocouples are used for higher temperatures. But also other types as typeJ (Fe-CuNi) or typeT (Cu-CuNi) are available.

The maximum temperature at the connection head, made of aluminium, is 100°C. If a transmitter is used, the maximum temperature at the connection head is 85°C. Therefore we recommend using a neck tube if high temperatures should be measured.

With a fixed thread, the stems withstand a static process pressure of maximum 40bar. All wetted parts are made of stainless steel 1.4571 (316Ti). Other materials or coatings are available on request.

Features

- O Universal thermometer
- O Interchangeable insert
- O Cost-efficient
- O Short delivery times
- O Optional transmitter 4-20 mA
- O Special versions on request

Versions

- O Resistance thermometer
- O Thermocouples
- O with/without head transmitter
- O Several connection heads

Measuring range

- O Type K up to 800°C maximal
- O PT sensors between -200 ... 600°C maximal

Applications

- O Air Conditioning
- O Tank and pipe construction
- O Chemical Industry
- O Mechanical Engineering and Machinery

Model: TE200

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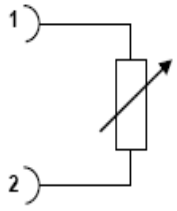
Technical data

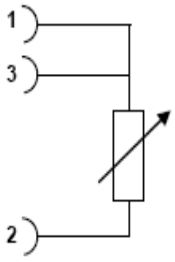
	TE200	
	Resistance thermometer	**Thermocouples**
Sensor-Type	PT100 PT1000	Type K others on request
Accuracy class	Standard: class B acc. to EN 60751 Optional: class A acc. to EN 60751	class 1 acc. to IEC 584
Measuring ranges	-50°C … +250°C (standard) -50°C … +400°C -50°C … +600°C -200°C … +600°C	0..800°C (for higher temperatures other stem materials have to be used)
Temperature at connection head	Max. temperature: 100°C with transmitter max. 85°C	
Extension length	145mm acc. to DIN 43772 Form 2G without (please not max. temperature of connection head!)	
Numbers of sensors and wires	1 x 2 wire 1 x 3 wire 1 x 4 wire 2 x 2 wire	1 x thermocoulpes 2 x thermocouples
Process connection	Fixed screw connection: G ½ A, G ¾ A, G 1, ½“NPT Compression fitting: G ½ A, G ¾ A, G 1, ½“NPT Plain other connection on request	
Material	Stainless steel 1.4571 (316 Ti) other materials on request	
Stem diameter	Standard: 9mm Optional: 11mm, 14mm others on request	
Stem length	100mm 160mm 200mm 250mm 400mm others on request	
Connection head (acc. to DIN 43729)	Form B (Aluminium) IP54 Form BUZ (Aluminium) IP65 Form BUZ-H (Aluminium) IP65 others on request	
Electrical connection	M20x1,5 others on request	
Transmitter assembly	without mounted on the measuring insert mounted in the cup of the connection head (only possible with head Form BUZ-H)	

Electrical connection for resistance thermometer

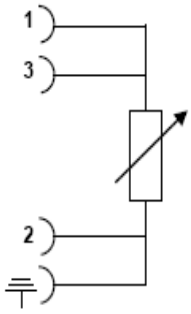
PT-signal: 2-wire



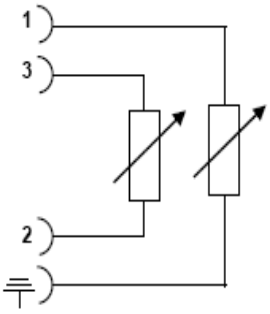
PT-Signal: 3-wire



PT-signal: 4-wire

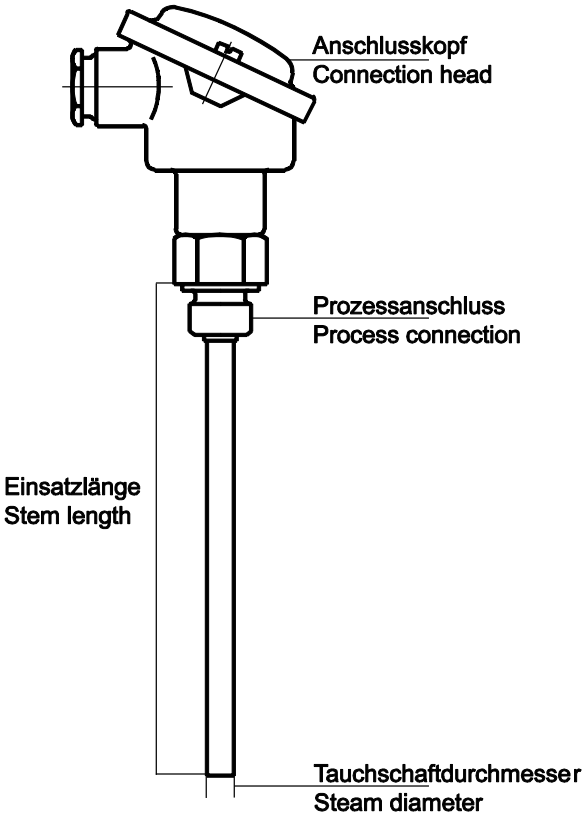


PT-signal: 2x2-wire

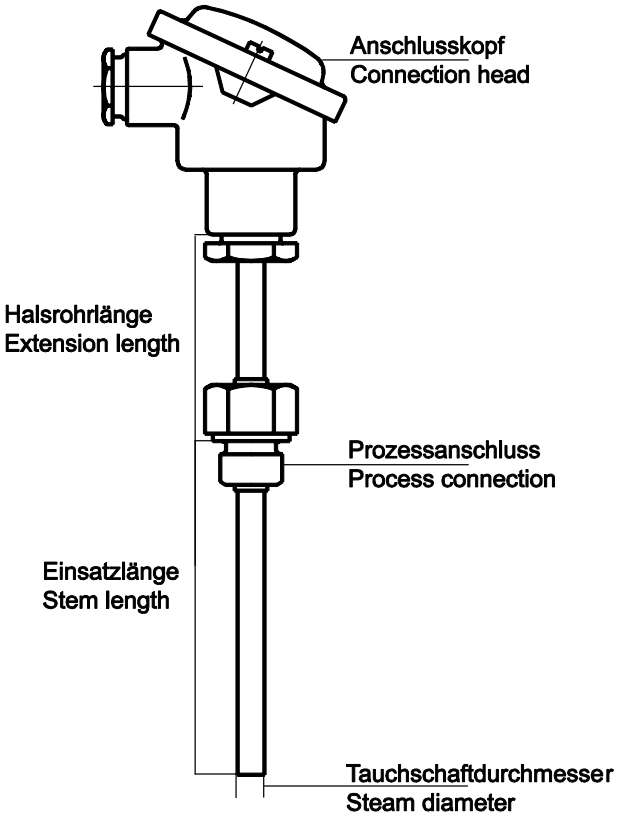


Dimensions

Without neck tube

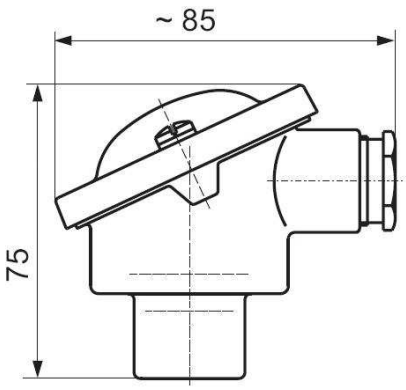


With neck tube

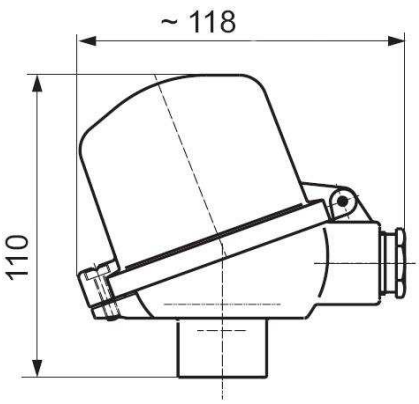


Connection heads

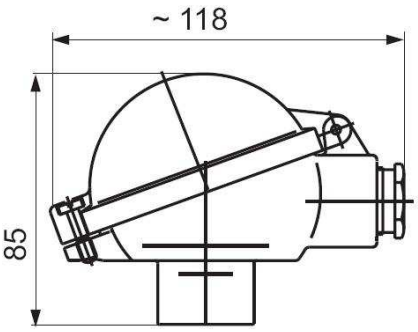
Form B



Form BUZ-H



Form BUZ



Subject of technical changes