

Product information

Mineral-insulated temperature sensor in protective tube GTF103



Characteristics

- Resistance thermometer Pt100 class B or thermocouple type K, class 1
- Cylindrical thermowell, stainless steel 1.4404
- Connection head type B (BA) or BUZ (NA)
- Protection class of the connection head IP65
- Maximum operating temperature -50...+600°C
- Exchangeable measuring insert
- Optionally with transmitter

Description

Sheathed insertion or screw-in process sensor for operating temperatures up to 600°C. A PT100 sensor element is inserted into the stainless steel tube (1.4404, 316L) in a 4-wire circuit. This enables use with evaluation devices in 2-, 3- or 4-wire technology. A maximum of 2 sensor elements can be installed.

This version is equipped with an exchangeable measuring insert.

Technical Data

Installation length : 50...500mm
Flow velocity : 1m/s, max.

Operating temperatures

Sensors tip : -50...+600°C
Sensor head : -40...+85°C

Materials thermowell : 1.4404

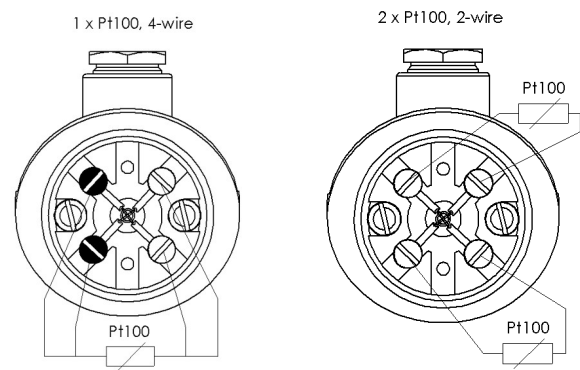
Cable entry : M20x1,5

Protection class : IP65

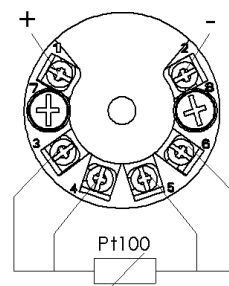
Transmitter RT420

Output signal : 4...20mA, 2-wire, Load (UB-8V/23mA))
Power supply : 8...35V DC
Signal limitation : 23 / 3,5mA
Error-Behavior : Downscaling <4mA

Connection Diagram



Connection with integrated transmitter RT420



Product information

Dimension

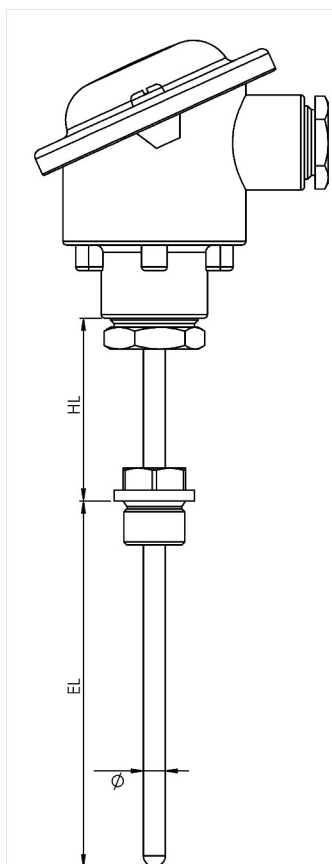


Figure shows variant with connection head type B

Ordering code

Resistance temperature sensor (RTD)

GTF103-

1. Standard signal	
O	Without
RT	4...20 mA, 2-wire. RT420
2. Sensor element	
P	Pt100
P22	Pt100, 2 x 2-wire (without transmitter)
P23	Pt100, 2 x 3-wire (without transmitter)
3. Accuracy sensor element	
B	DIN Kl. B
4. Connection sensor element	
2L	2-wire
5. Connection head	
A	Type B (BA)
AK	Type BUZ (NA)
6. Measuring insert	
MA	Exchangeable
7. Process connection	
J	Screw-in sensor, thread according to no. 9
N	Plug-in sensor
8. Neck tube (screw-in sensor, only)	
K	without neck tube (-50<T<100°C)
M	Neck tube 50 or 100 mm
9. Process connection (Screw- in sensor)	
G1	G1/2
G3	G3/4
10. Neck tube length (HL)	
000	without
050	50 mm
100	100 mm
11. Sensor diameter	
60	6 mm
80	8 mm
90	9 mm
9/6	9 reduce to 6 mm tip
12. Installation length (EL)	
0050	50 mm
0100	100 mm
0150	150 mm
0250	250 mm
0500	500 mm
xxxx	Other length on request, min. stepping >5mm
13. Mineral-insulated sensor element	
ME	Yes
14. Measuring range	
MB3	-50...600°C (max. operating temperature)
MBS	Measuring range, for usage with transmitter

Product information

Thermocouple sensor (TC)

GTF103-

1. Standard signal	
O	without
2. Sensor element	
K	Type K, NiCr-Ni
K2	2 x Type K, NiCr-Ni
3. Accuracy sensor element	
1	Class 1
4. Connection sensor element	
2L	2-wire
5. Connection head	
A	Type B (BA)
AK	Type BUZ (NA)
6. Measuring insert	
MA	Exchangeable
7. Process connection	
J	Screw-in sensor, thread according to no. 9
N	Plug-in sensor
8. Neck tube (screw-in sensor, only)	
K	without neck tube (-50<T<100°C)
M	Neck tube 50 or 100 mm
9. Process connection (screw-in sensor)	
G1	G1/2
G3	G3/4
10. Neck tube length (HL)	
000	without
050	50 mm
100	100 mm
11. Sensor diameter	
60	6 mm
80	8 mm
90	9 mm
8/6	8 reduce to 6 mm tip
9/6	9 reduce to 6 mm tip
12. Installation length (EL)	
0050	50 mm
0100	100 mm
0150	150 mm
0250	250 mm
0500	500 mm
xxxx	Other length on request, min. stepping >5mm
13. Mineral-insulated sensor element	
ME	Yes
14. Measuring range	
MB3	-50...600°C (max. operating temperature)

(other versions on request)

Guide values for the minimum required neck tube length (with good ventilation):

Measured temperature [°C]	Halsrohrlänge [mm]
< -50	50 ... 100
≤ 250	50 ... 100
≤ 400	100 ... 200
> 400	> 200

Accessories

Immersion sleeves

For sensors diameters 6, 8 and 9mm

Internal threat G1/2

External threat G1/2A

Sleeve length EL sensor – 15mm

Ordering example: EST-02-**085-08**-GE

8mm immersion sleeve for 6 mm sensor with
EL 100 mm

Other versions on request.

Replacement measuring insert

MEA103 Replacement measuring insert, in request

Heat-conducting paste

GWL10G Heat-conducting paste in plastic syringe, for
better heat transfer.

Compression fitting for plug-in sensor

Ordering code	Sensors diameter	Design
GKV9	6mm	G1/2", Teflon
GKV10	6mm	G1/2", SST
GKV11	6mm	G1/4", Teflon
GKV12	6mm	G1/4", SST