

Product information

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 form B (BA) or J (MAA)
- Protection class of the connection head IP65
- Maximum operating temperature -50...+250°C
- Optionally with transmitter

Description

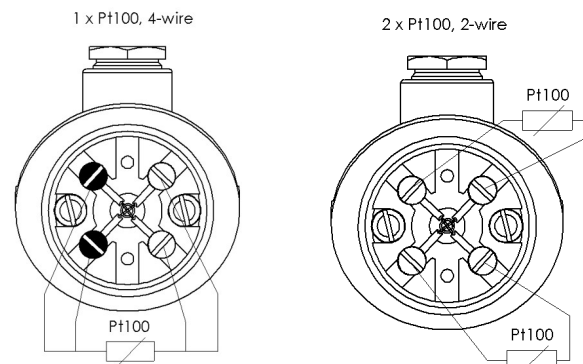
Simple insertion or screw-in process sensor in cylindrical design for operating temperatures up to 250°C. A PT100 sensor element in a 4-wire circuit is inserted into the stainless steel tube (1.4404, 316L). This enables the use of evaluation devices with 2-, 3- or 4-wire technology.

A maximum of 2 sensor elements can be installed.

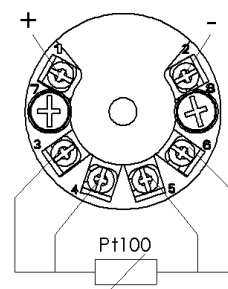
Technical Data

Installation length	: 50...500mm
Flow velocity	: 1m/s, max.
Operating temperatures	
Sensors tip	: -50...+250°C
Sensors head	: -40...+85°C
Materials thermowell	: 1.4404
Cable entry	: M20x1,5 (BA) M16x1,5 (MAA)
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

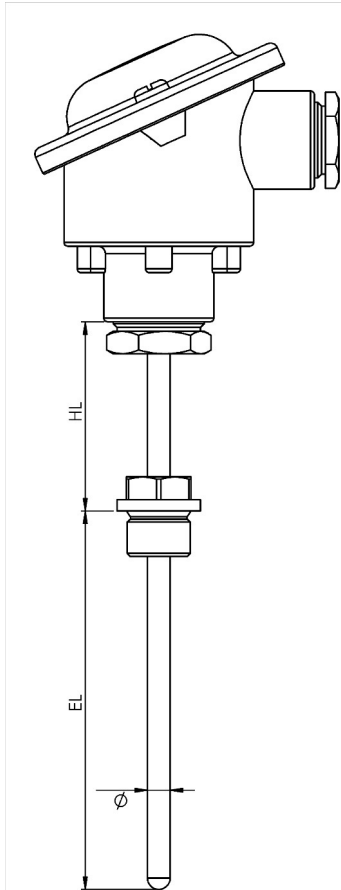


Figure shows variant with connection head type B

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)
S	Type J (MAA, without transmitter)
6. Measuring insert	
0	Fixed, not 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
9/3	9 reduced to 3 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	
00	no
14. Measuring range	
MB2	-50...250°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 xType K, NiCr-Ni
3. Accuracy sensor element		
	1	Class 1
4. Connection sensor element		
	2L	2-wire
5. Connection head		
	A	Type B (BA)
	PK	Type J (MAA)
6. Measuring insert		
	0	Fixed, not 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
	9/3	9 reduced to 3 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		
	00	no
14. Measuring range		
	MB2	-50...250°C (max. operating temperature)

(other versions on request)

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

Measured temperature [°C]	Neck tube length [mm]
< -50	50 ... 100
≤ 250	50 ... 100
≤ 400	100 ... 200

Accessories

Immersion sleeves

For sensors diameters 6, 8 and 9mm

Internal thread G1/2

External thread 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.

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