Senseca Germany GmbH
Tenter Weg 2-8 | 42897 Remscheid | GERMANY
Phone +49 2191 9672-0 | info(at)senseca.com

Product information

Temperature senor 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

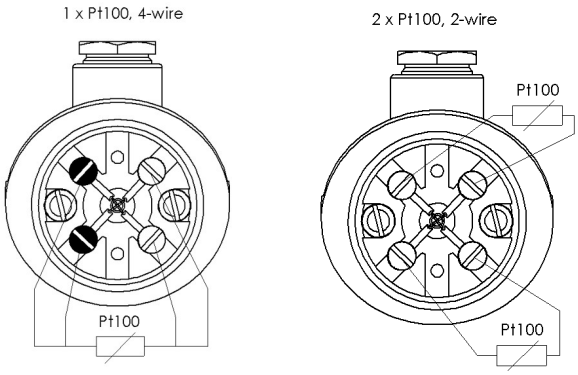
Description

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.

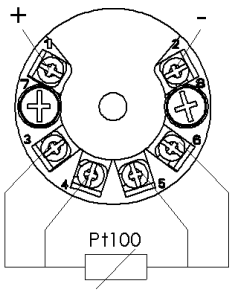
Technical Data

Installation length	: 50…500mm
Flow velocity	: 1m/s, max.
Operating temperatures	
Senors 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



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Dimension

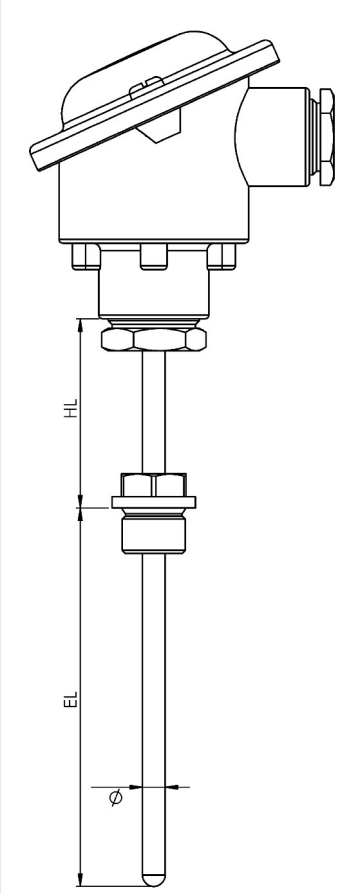

Figure shows variant with connection head type B

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

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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 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.

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