

Screw in resistance temperature probe

GTF102P

Introduction

GTF102P is a screw-in resistance temperature sensor in a 3mm (other diameters available) stainless steel tube with fixed cable.

It is available as Pt100 or Pt1000 (1/10B, AA, A or B class), thinfilm or wire-wound in custom length.

Three temperature ranges (250/400/600°C) are available to allow best adaption to process requirements between maximum temperature and response times.

Cable can be configured silicon, pvc, ptfe or glass fibre insulated. The cable is protected by an extension tube and supported by a coil spring in the standard version (also available without extension tube and coil spring).



High Flexibility

Pt100 and Pt1000 elements available in class AA, A, B or 1/10B as thin-film or wire-wound sensor.



Robust design

3/4/5 or mm protective tube in custom length with process thread.



Faster response time

LT or MT version in 3mm for fast response times.



View product on our website

prod.senseca.apprunner.info/en/product/gtf102p-screw-in-resistance-temperature-probe

Technical Specifications

Process Condition

Media temperature	-200...+600 °C
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Measurement

Temperature sensor	Pt100, Pt1000, Class 1/10B, AA, A, B For Pt100: Pt100 For Pt1000: Pt1000 For B class DIN EN 60751 (-50...+500°C, thin-film): B For A class DIN EN 60751 (-30...+300°C, thin film): A For A class DIN EN 60751 (-100...+450°C, wire-wound): A For AA class DIN EN 60751 (0...+150°C, thin film): AA For 1/10B class (-50...+100°C, wire-wound): 1/10B
Measuring principle	RTD

Electrical Connection

Electrical connection type	loose ends For Loose ends with wire end ferrules: loose ends
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Probe

Cable	PVC, PTFE, Silicon, Flexible fiberglass with steel wire braiding For 2-wire: 2-wire For 3-wire: 3-wire For 4-wire: 4-wire For 1 m PVC cable, -20 ... +105 °C: 1 m PVC For each additional meter (PVC cable): PVC For 1 m silicone cable, -50 ... +200 °C: 1 m Silicon For each additional meter (silicone cable): Silicon For 1 m Teflon cable, -200 ... +250 °C: 1 m PTFE For each additional meter (silicone cable): Silicon For 1 m glass fibre, -50 ... +400 °C: 1 m Flexible fiberglass with steel wire braiding For each additional meter (glass fibre insulated cable): Flexible fiberglass with steel wire braiding For each additional meter (teflon cable): PTFE
Probe Diameter	For 3 mm: 3 mm For 4 mm: 4 mm For 5 mm: 5 mm For 6 mm: 6 mm

Probe length

For 50 mm: 50 mm
 For 100 mm: 100 mm
 For 150 mm: 150 mm
 For 250 mm: 250 mm
 For 500 mm: 500 mm

Order Code

GTF102P - 1. - 2. - 3. - 4. - 5. - 6. - 7. - 8. - 9. **LE** - 10.

i Enter the code for your selected option in the order code field above. The numbering corresponds to the sets from which you can choose. Note that some options can only be used in certain combinations.

Nr.	Code	Description
1. Operating temperature	LT	-200...+250°C at sensors tip
	MT	-200...+400°C at sensors tip
	HT	-200...+600°C at sensors tip
2. Measuring element	P	Pt100
	T	Pt1000
3. Valid range	B-T	B class DIN EN 60751 (-50...+500°C, thin-film)
	A-T	A class DIN EN 60751 (-30...+300°C, thin film)
	A-W	A class DIN EN 60751 (-100...+450°C, wire-wound)
	AA-T	AA class DIN EN 60751 (0...+150°C, thin film)
	1/10B-W	1/10B class (-50...+100°C, wire-wound)
4. Thread	11	G ¼
	12	G ¼
	13	G ¾
	14	G ½
5. Probe diameter Ø	3	3 mm
	4	4 mm
	5	5 mm
	6	6 mm
6. Installation length	0050	50 mm
	0100	100 mm
	0150	150 mm
	0250	250 mm
	0500	500 mm
	-xxxx	each additional 100 mm
7. Extension	OKH	without
	550	with extension sleeve and coil spring

Nr.	Code	Description
8. Cable and length	1-P	1 m PVC cable, -20 ... +105 °C
	x-P	each additional meter (PVC cable)
	1-S	1 m silicone cable, -50 ... +200 °C
	x-S	each additional meter (silicone cable)
	1-T	1 m Teflon cable, -200 ... +250 °C
	x-T	each additional meter (silicone cable)
	1-G	1 m glass fibre, -50 ... +400 °C
	x-G	each additional meter (glass fibre insulated cable)
	x-T	each additional meter (teflon cable)
9. Connection	LE	Loose ends with wire end ferrules
10. Options	00	without
	TU	Teflon covered probe
	WD	Cable transition water proof covered

Features

Constructive design

Available for following max. process temperatures at sensors tip:

LT: -200...250°C (fast response in lower temperature)

MT: -200...+400°C (fast response in medium temperatures)

HT: -200...+600°C (mineral insulated; good response in higher temperatures)

Note: The maximum operating temperature of the cable must not be exceeded on either the cable sleeve or the cable itself!

Sensor element

Available RTD elements acc. to IEC751/EN60751:

Note: Wire wound sensor and 1/10 class B elements are available vor Pt100, only.

- B -196...+600°C or -50...+500°C
- A -100...+450°C or -30...+300°C
- AA(1/3B) - 50...+250°C or 0...+150°C

Other:

- 1/10B -50...+100°C

Protective tube

Available in 3/4/5 or 6mm diameter in length up to 1000mm in 5mm minimum steppings.

Process threads

G1/2" (standard) or G1/4"

Available cable insulation

Type (allowed temperatures)

- PVC (-20...+105°C)
- Silicon (-50...+200°C)
- Teflon (-200...+250°C)
- Glass-fiber with stainless steel mesh (-50...+400°C)

Instructions

Dimensions

