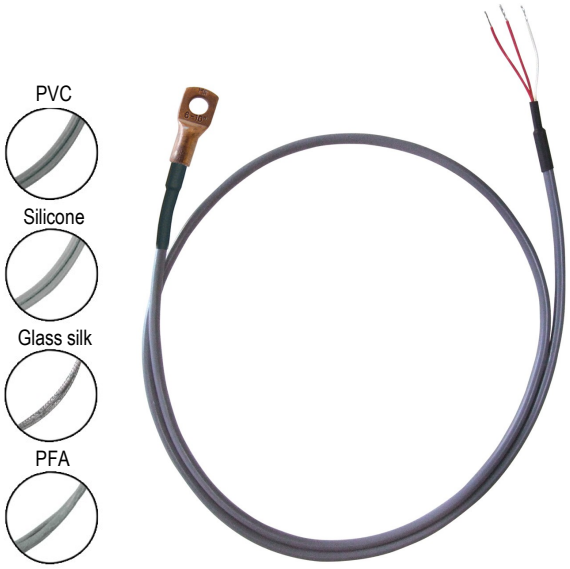
KIMO INSTRUMENTS

Technical Data Sheet

Pressure / Temperature / Humidity / Air Velocity / Airflow / Sound level



Temperature probe with cable at resistive element for contact measurement by eyelet

SFO 50 / SFOD 50

PROBE FEATURES

- Temperature probe mounted on conductor cables with stainless steel contact tip and perforated copper eyelet (Ø 6.3 mm).
- Measuring range (according to cable):
  From -50 °C to +400 °C (PT100 et PT1000).
  From -20 °C to +120 °C (NTC).
- 2 wires output (SFO) or 4 wires (SFOD) for NTC and PT1000
  3 or 4 wires output (SFO) or 6 wires (SFOD) for PT100.
- For other resistance types PT25, PT50, PT500, PT200 or NI, please contact us.

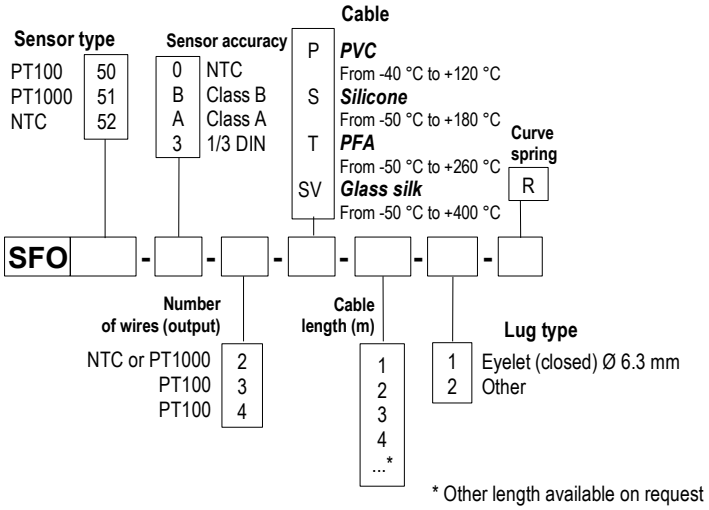
TRANSMITTER FEATURES

Operating temperature ***(According to cable)***	From -50 °C to +400 °C (PT100 and PT1000) From -20 °C to +120 °C (NTC)
Accuracy *	**PT100 or PT1000:** see "Tolerances" table **NTC:** see "Tolerances" table
Sensor type	**PT100 or PT1000**: class B, class A, 1/3 DIN as per DIN IEC751 **NTC:** resistance at 25 °C, R_{25} = 10 KΩ Nominal Beta value B25/85 = 3.695 K ±1%
Storage temperature	From -20 °C to +80 °C
Working temperature of the cable	**PVC**: from -40 °C to +120 °C **Silicone:** from -50 °C to +180 °C **PFA**: from -50 °C to +260 °C (Optional: shield) **Glass silk with stainless steel sheath**: from -50 °C to +400 °C
Contact tip	Copper eyelet 14 x 12 mm, hole fixing of Ø 6.3 mm. Output stainless steel 316 L tube of 10mm with Ø 4.5 mm (SFO) or 5 mm (SFOD). Waterproof crimping with heat-shrink tubing (unless glass silk cable with simple crimping on stainless steel sheath). Optional: curve spring

*all accuracies indicated in this technical data sheet were stated in laboratory conditions, and can be guaranteed for measurements carried out in the same conditions, or carried out with calibration compensation.

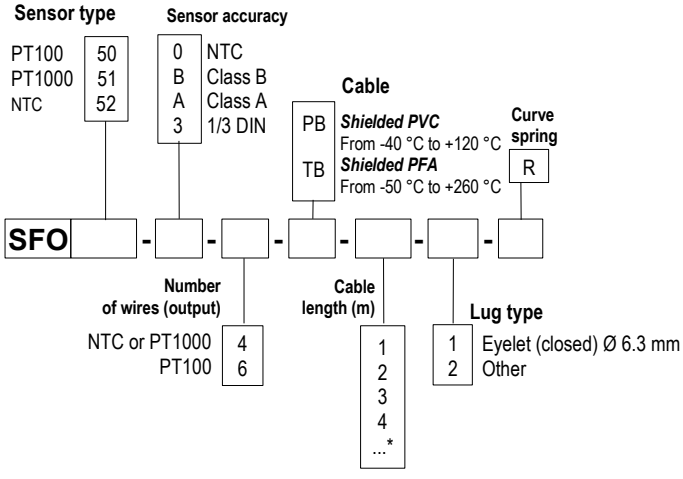
PART NUMBERS

• SFO 50 - Single pair probe



Example: SFO51-B-2-P-1-2
Model: Pt 1000 temperature sensor, Class B, 2 wires, PVC cable of 1m length. Stainless steel contact tip 4.5 mm Ø , length 60 mm, with a copper eyelet perforated Ø 6.3 mm, without curve spring. **Measuring range from -40 to +120 °C.**

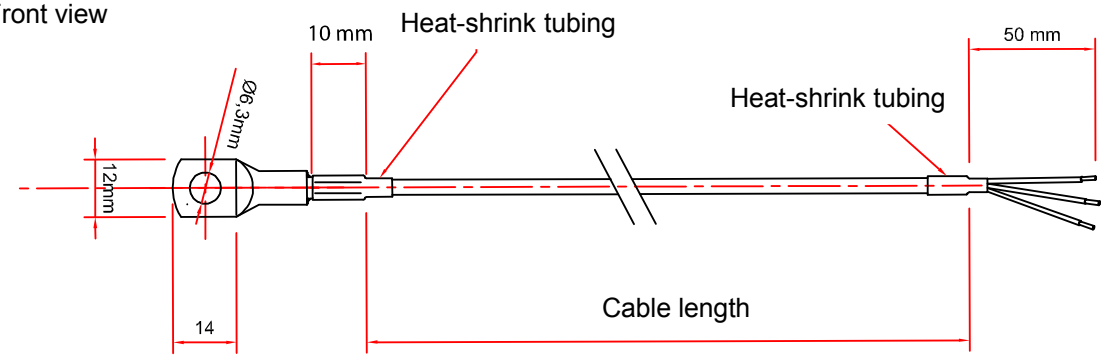
• SFOD 50 - Multipair Probe



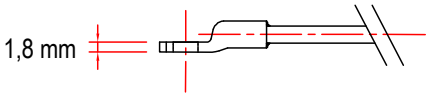
Example: SFOD51-B-4-P-1-2
Model: Pt 1000 temperature sensor, 4 wires, shielded PFA cable of 1m length. Stainless steel contact tip 5 mm Ø , length 60 mm, with a copper eyelet perforated Ø 6.3 mm, without curve spring. **Measuring range from -40 to +120 °C.**

PROBES DIMENSIONS

• Front view



• Side view



TOLERANCE OF PT100 AND PT1000 PROBES

As per IEC 751 (1993) norms.

Temp °C	Tolerances					
	Class B		Class A		1/3 DIN	
	± °C	± Ohms	± °C	± Ohms	± °C	± Ohms
-100	0.8	0.32	0.35	0.14	0.27	0.11
-50	0.55	0.22	0.25	0.1	0.19	0.08
0	0.3	0.12	0.15	0.06	0.1	0.04
100	0.8	0.3	0.35	0.13	0.27	0.1
200	1.3	0.48	0.55	0.2	0.44	0.16
300	1.8	0.64	0.75	0.27	0.6	0.21
400	2.3	0.79	0.95	0.33	0.77	0.26

Resistance values for PT1000 (Ω) must be multiplied by 10 for the same corresponding temperature value (°C). I.e: at 0 °C for Class B PT1000 ± 0.3 °C → ± 1.2 Ω

TOLERANCE OF NTC PROBES

Measuring range °C	Tolerances °C
From -20 °C to 0 °C	± 0.5 °C
From 0 °C to +70 °C	± 0.2 °C
From +70 °C to +100 °C	± 0.5 °C

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