

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



**SFO 50 / SFOD 50**



**Transmitter features**

- Operating temperature**.....from -50°C to +400°C (PT100 et PT1000)  
(According to cable) 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<sub>25</sub> = 10KΩ Nominal  
Beta value B25/85 = 3,695K ±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  
**Teflon (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

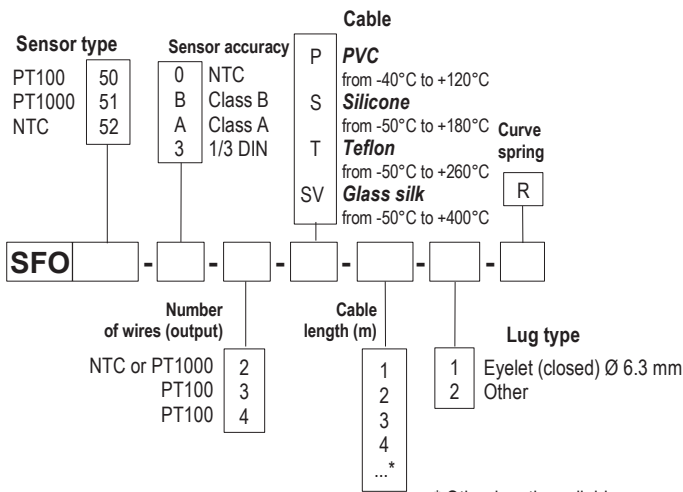
\*all accuracies indicated in this technical data sheet were stated in laboratory conditions, and can be guaranteed for measurements carried out in the same conditions, or carried out with calibration compensation.

**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.

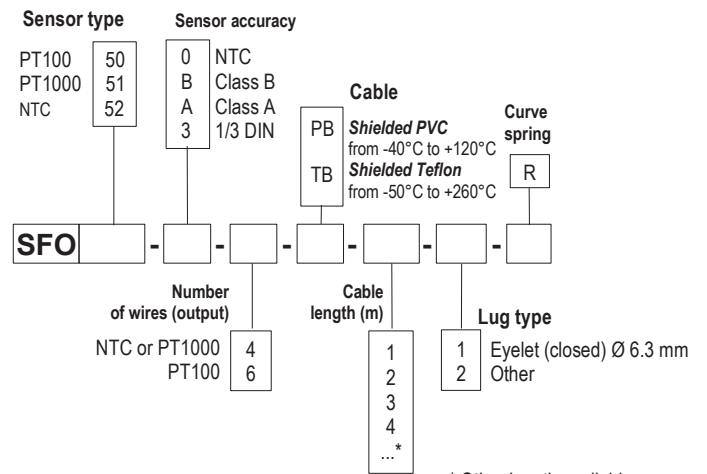
**Part numbers**

**SFO 50 - Single pair probe -**



\* Other length available on request

**SFOD 50 - Multipair Probe -**



\* Other length available on request

**Example : SFO51-B-2-P-1-2**

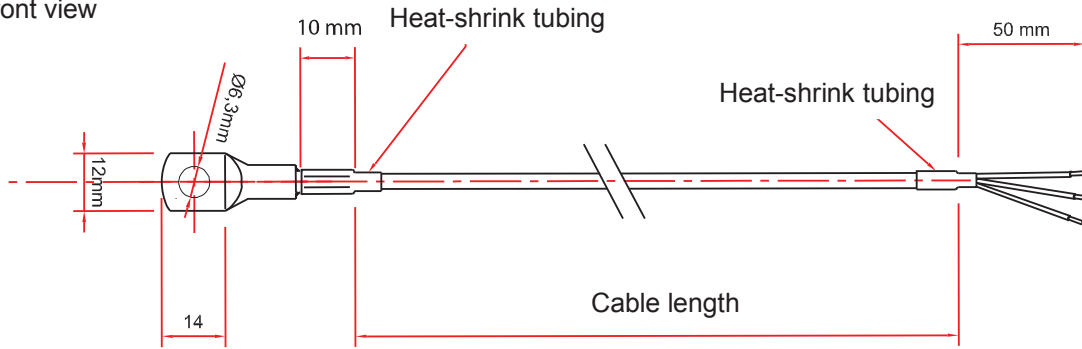
Model : Pt 1000 temperature sensor, Class B, 2 wires, PVC cable of 1m length.  
Stainless steel contact tip 4.5 mm Ø , length 60 mm, with a copper eyelet perforated Ø 6.3 mm, without curve spring. **Measuring range from -40 to +120°C.**

**Example : SFOD51-B-4-P-1-2**

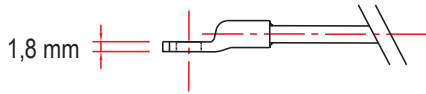
Model : Pt 1000 temperature sensor, 4 wires, shielded Teflon cable of 1m length.  
Stainless steel contact tip 5 mm Ø , length 60 mm, with a copper eyelet perforated Ø 6.3 mm, without curve spring. **Measuring range from -40 to +120°C.**

## ■ Probes dimensions

### • Front view



### • Side view



## ■ Tolerance of PT100 and PT1000 probes.

As per IEC 751 (1993), BS 1904 (1984) and DIN 43760 (1980) 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

## ■ Tolerances 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

\*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.

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