

**Temperature probe with cable**

**SF 50 / SFD 50**

**Transmitter features**

**Working temperature**.....from -50°C to +400°C (PT100 and PT1000)  
**(According to cable)** from -20°C to +120°C (NTC)  
**Accuracy \***.....**PT100 or PT1000** : see "Tolerances" table  
**NTC** : see "Tolerances" table  
**Type of sensor**.....**PT100 or PT1000** : class B, class A  
 and 1/10 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  
**Glass silk with stainless steel sheet** : from -50°C to +400°C

**Probe**.....316 L stainless steel, watertight crimping with heat shrink tubing. (Except glass silk cable with standard mounting on stainless steel duct)

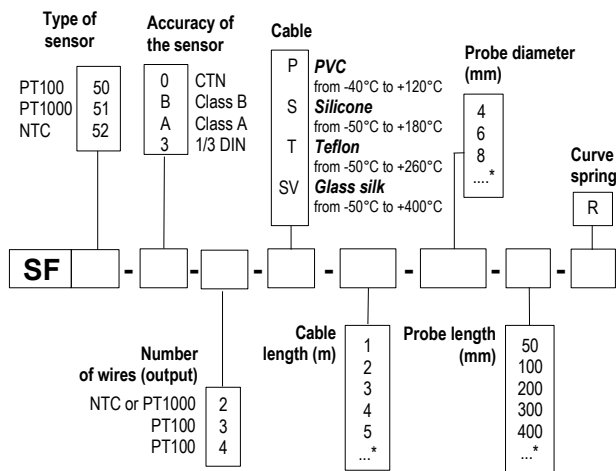
\*all accuracies indicated in this technical datasheet were stated in laboratory conditions, and can be guaranteed for measurements carried out in the same conditions, or carried out with calibration compensation.

**Probe features**

- Stainless steel temperature probes with conductive cable.
- Measuring range (according to cable)  
 from **-50°C to +400°C (PT100 and PT1000)**.  
 from **-20°C to +120°C (CTN)**.
- 2 wires for NTC and PT1000 outputs,
- 3 or 4 wires for PT100 output.
- For other resistance types PT25, PT50, PT500, PT200 or NI, please contact us.

**Part numbers**

**SF 50 – Single pair probe -**

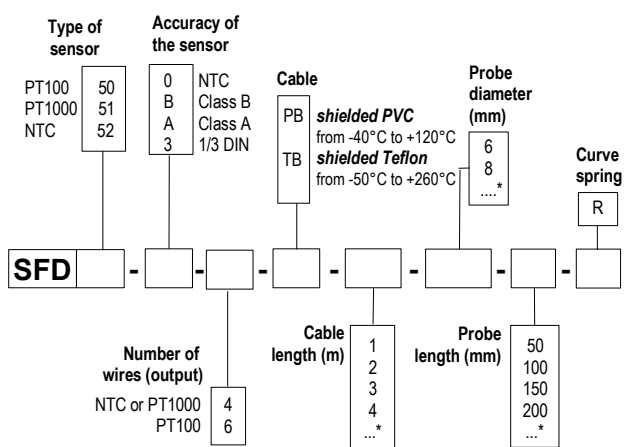


\* Other length available on request

**Example : SF51-B-2-P-1-4-100**

Model : Temperature probe PT1000 Class B, 2 wires, PVC cable of 1 m length. Stainless steel protective sheath 4 mm Ø, length 100 mm without curve spring. Measuring range from -40 to +120°C.

**SFD 50 – Multipair Probe -**

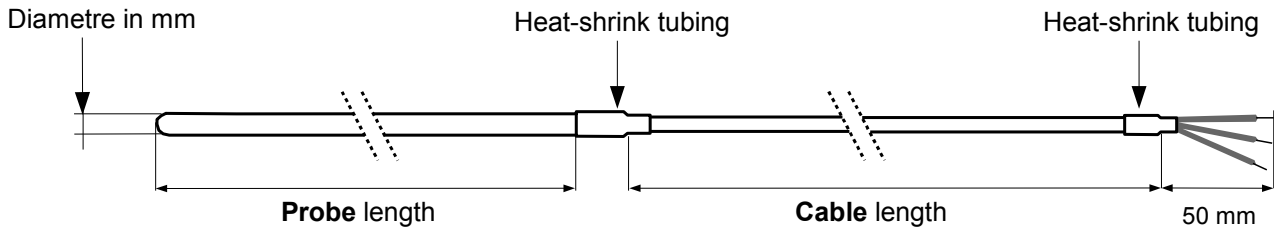


\* Other length available on request

**Example : SFD51-B-4-PB-1-6-100**

Model : Temperature probe PT1000 Class B, 4 wires, shielded PVC cable of 1 m length. Stainless steel protective sheath 4 mm Ø, length 100 mm without curve spring. Measuring range from -40 to +120°C.

## ■ Probes dimensions



## ■ Tolerance of PT100 and PT1000 probes.

Norms as per IEC 751 (1993), BS 1904 (1984) and DIN 43760 (1980).

| 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      |

## ■ Accessories (See Datasheet)

- Transmitter output 4/20 mA or 0/10V
- Wall fixing support
- Stainless steel mounting brackets
- ¼" or ½" Gas screw nut
- Stainless steel compression fitting
- Teflon or stainless steel ferrule for compression fittings



- Sleeve to weld for food industry
- Stainless steel union fitting
- ½" Gas or NPT thread cuff
- Thermo-conducting silicone grease
- Calibration certificate
- Thermowell



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