**Thermocouple penetration probe with cable**

**SFP K**

### Probe features

- Thermocouple types T, J, K and N.
- Measuring range from -40°C to +550°C
- 316 L stainless steel sheath

### Technical features

- **Operating temperature**
  - from -40°C to +105°C for shielded PVC cable
  - from -40°C to +260°C for shielded T cable
  - from -40°C to +400°C for shielded SV cable
  - from -40°C to +550°C for shielded SV cable (Tc K only)

- **Accuracy**
  - See "Tolerances" table

- **Welding type**
  - Ungrounded hot junction.

- **Storage temperature**
  - from -20°C to +80°C

- **Output**
  - Stripped wire, miniature plug or standard on request.

- **Sheath**
  - 316 L stainless steel, optional curve spring.

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### Part numbers

**Example:** SFPK-PB-1-4-100-R-MM

Model: Thermocouple type K. Stainless steel protective sheath 4 mm diameter, 100mm length with a shielded PVC cable, 1m long, with curve spring and miniature plug connector.

Measuring range from -40 to +105°C.

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### Probe dimension

- **Heat-shrink tubing**
  - Diameter in mm
  - Probe length
  - Cable length

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* Performed in laboratory conditions, the above accuracies mentioned in this document will be guaranteed, provided that you use the calibration compensation data or identical calibration conditions.
**Tolerances* of the probe**

As per IEC 584-3 norm

<table>
<thead>
<tr>
<th>TC</th>
<th>Measuring range CLASS 1</th>
<th>TOLERANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>From -40°C to +350°C</td>
<td>From -40°C to +125°C ± 0.5°C From 125°C to +350°C ± 0.004 x T°</td>
</tr>
<tr>
<td>J</td>
<td>From -40°C to +750°C</td>
<td>From -40°C to +375°C ± 1.5°C From 375°C to 750°C ± 0.004 x T°</td>
</tr>
<tr>
<td>K</td>
<td>From -40°C to +1000°C</td>
<td>From -40°C to +375°C ± 1.5°C From 375°C to 1000°C ± 0.004 x T°</td>
</tr>
<tr>
<td>N</td>
<td>From -40°C to +1000°C</td>
<td>From -40°C to +375°C ± 1.5°C From 375°C to 1000°C ± 0.004 x T°</td>
</tr>
</tbody>
</table>

* Performed in laboratory conditions, the above accuracies mentioned in this document will be guaranteed, provided that you use the calibration compensation data or identical calibration conditions.

**Most common thermocouple types**

<table>
<thead>
<tr>
<th>THERMOCOUPLE TYPES</th>
<th>+ CONDUCTOR</th>
<th>- CONDUCTOR</th>
<th>COLOR OF COMPENSATING CABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>Chromel</td>
<td>Alumel</td>
<td>Ext. color + = GREEN, - = WHITE</td>
</tr>
<tr>
<td>T</td>
<td>Copper</td>
<td>Constantan</td>
<td>Ext. color + = BROWN, - = WHITE</td>
</tr>
<tr>
<td>J</td>
<td>Iron</td>
<td>Constantan</td>
<td>Ext. color + = BLACK, - = WHITE</td>
</tr>
<tr>
<td>N</td>
<td>Nicrosil</td>
<td>Nisil</td>
<td>Ext. color + = PINK, - = WHITE</td>
</tr>
<tr>
<td>R</td>
<td>Platinum-13% Rhodium</td>
<td>Platinum</td>
<td>Ext. color + = ORANGE, - = WHITE</td>
</tr>
<tr>
<td>S</td>
<td>Platinum-10% Rhodium</td>
<td>Platinum</td>
<td>Ext. color + = ORANGE, - = WHITE</td>
</tr>
<tr>
<td>B</td>
<td>Platinum-30%Rhodium</td>
<td>Platinum-6%Rhodium</td>
<td>Ext. color + = GREY, - = WHITE</td>
</tr>
</tbody>
</table>

**Accessories (See Datasheet)**

- Extension cable
- Compensating cable
- Standard or miniature connector
- Cable seal for plug and socket connector
- Miniature or standard fixed connector
- Miniature or standard connectors panel
- Extension lead
- Converters

Ref: FTang - SFPK - 04/04/11 – RCS (24) Périgueux 349 282 095 Non-contractual document – We reserve the right to modify characteristics of our products without prior notice.

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