# Technical Information

## Model TES.03.03

**AUTOMOTIVE Sector**

### Temperature sensor for test room

<table>
<thead>
<tr>
<th><strong>Description</strong></th>
<th>Temperature sensor thermocouple &quot;K&quot; type for test room. Inconel 600 sheath diameter 3,0 mm tapered to 1,6 mm, mineral oxide insulation, teflon PFA conductor insulation, teflon PFA insulation sheath and inner armor in tinned plated copper.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sensor Type</strong></td>
<td>Thermocouple “K” type hot joint insulated</td>
</tr>
<tr>
<td><strong>Sensor Number</strong></td>
<td>1</td>
</tr>
<tr>
<td><strong>Precision</strong></td>
<td>Class 1 (special) according to EN60584</td>
</tr>
<tr>
<td><strong>Working Temperature</strong></td>
<td>-40 / +750 °C</td>
</tr>
<tr>
<td><strong>Short Time Temperature</strong></td>
<td>+800 °C</td>
</tr>
</tbody>
</table>
| **Sensor Sheat** | Material: INCONEL 600  
Diameter: 3,0 mm tapered 1,6 mm  
Lenght: 80 mm  
Internal insulation: mineral oxide  
* on request other length |
| **Process Connection** | None                                                                            |
| **Cable** | Diameter: 3,0 mm  
Lenght: 2,00 mt  
* on request other length  
CONDUCTORS  
number: 2  
section: 0,22 mm²  
type: strand  
material: thermocouple “K” type  
insulation: teflon PFA  
Insulation sheath: teflon PFA  
Internal sheath: tinned plated copper  
External amor: none  
COLOURING  
standard: ANSI  
conductors: red (+) ; yellow (-)  
sheath: yellow  
* on request other colouring |
| **Electrical Connection** | Bare outlet conductors L = 50 mm |
### Laser Marking
- Thermo Engineering Logo
- Thermo Engineering P/N
- Customer P/N
- dd/mm/yy production

* on request other marking

### Tests
- Visual
- Dimensional
- Room temperature insulation resistance
- Electrical Continuity

* on request other test

### Room Temperature Insulation Resistance
According to IEC 1515 resistance $> 1\Omega @ 25\,^\circ C$; between the terminals and the sheath with a test voltage of 500 VDC.

### Respons Time
- $t_{50}$: 4 sec
- $t_{90}$: 10 sec

### Certifications
- Conformity Certificate
- Conformity Certificate RoHS 2002/95/CE