## Technical Information

### Model TES.03.09

**utomotive sector**

**Temperature sensor for exhaust gas in go-kart and dragster**

| **Description** | Temperature sensor thermocouple type “K” for exhaust gas in go-kart and dragster. AISI 321 sheet diameter 3.0 mm, mineral oxide insulation, ceramic fiber conductor insulation, ceramic fiber insulation sheath and inner armor in AISI 304. |
| **Sensor Type** | Thermocouple “K” type hot joint insulated |
| **Sensor Number** | 1 |
| **Precision** | Class 1 (special) according to EN60584 |
| **Working Temperature** | -40 / +1100 °C |
| **Short Time Temperature** | +1050 °C |
| **Sensor Sheath** | Material: AISI 321  
Diameter: 3.0 mm  
Total length: 60 mm  
Internal insulation: mineral oxide  
* on request other length |
| **Process Connection** | None |
| **Cable** | Diameter: 2.9 mm  
Length: 0.270 mt  
* on request other length |
| **Conductors** | number: 2  
section: 0.22 mm²  
type: strand  
material: thermocouple “K” type  
insulation: ceramic fiber  
Insulation sheath: ceramic fiber  
Internal sheath: none  
External armor: AISI 304  
COLOURING  
standard: ANSI  
conductors: red (+); yellow (-)  
sheath: yellow  
* on request other colouring |
| **Electrical Connection** | Mignon connector male 2 contacts |
| **Laser Marking** | Thermo Engineering Logo  
Thermo Engineering P/N  
Customer P/N  
* 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 > 1Ω @ 25 °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 |