# Technical Information

## Model TES.03.11

### AUTOMOTIVE Sector

Temperature sensor for under spark plug

## Description

Temperature sensor thermocouple type "K" for under spark plug. AISI 321 sheet diameter 3.17 mm, mineral oxide insulation, teflon PFA conductor insulation, teflon PFA insulation sheath and inner armor in tinned plated copper.

### 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

+1150 °C

### Sensor Sheath

Material: AISI 321  
Diameter: 3.17 mm  
Total length: 85 mm  
Internal insulation: mineral oxide

* on request other length

### Process Connection

Copper ring ø 20 mm thickness 1.5 mm

### Cable

Diameter: 3.0 mm  
Length: 0.390 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 armor: none

**COLOURING**

standard: ANSI  
conductors: red (+) ; yellow (-)  
sheath: yellow

* on request other colouring

### Electrical Connection

Mignon connector 2 contacts male
| Laser Marking                                      | Thermo Engineering Logo  
Customer P/N  
dd/mm/yy production |
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| Tests                                             | Visual  
Dimensional  
Room temperature insulation resistance  
Electrical Continuity |
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<tr>
<th>Room Temperature Insulation Resistance</th>
<th>According to IEC 1515 resistance &gt; 1Ω @ 25 °C; between the terminals and the sheath with a test voltage of 500 VDC.</th>
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| Respons Time                                     | $t_{50}$: 4 sec  
$t_{90}$: 10 sec |
|--------------------------------------------------|----------------------------------------------------------|

| Certifications                                   | Conformity Certificate  
Conformity Certificate RoHS 2002/95/CE |
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