

## **Platinum Resistance Temperature Detector**

M 620

M series PRTDs are designed for large volume applications where long term stability, interchangeability and accuracy over a large temperature range are vital. Due to the high resistance values of  $1000~\Omega$  and  $2000~\Omega$  the signal gain is excellent. Typical applications are found in Automotive, White goods, HVAC, Medical and Industrial equipment.

|       | Nominal<br>Resistance R0 | <b>Tolerance</b><br>DIN EN 60751<br>1996-07 | <b>Tolerance</b> DIN EN 60751 2009-05 | Order Number<br>Plastic Bag |
|-------|--------------------------|---|---------------------------------------|-----------------------------|
| TO CO | 2000 Ohm at 0°C          | Class B                                     | F 0.3                                 | 32 208 541                  |

The measuring point for the nominal resistance is defined at 8mm from the end of the sensor body.

Spezification DIN EN 60751 (according to IEC 751)

Temperature range -70°C to +500°C (continuous operation)

(temporary use to 550°C possible)
Tolerance Class B: -70°C to +500°C

Temperature coefficient TCR = 3850 ppm/K

Leads Pt clad Ni- wire

Recommend connection technology:

Welding, Crimping and Brazing

Lead lengths (L) 10mm ±1mm

Longterm stability max. R<sub>0</sub>-drift 0.04% after 1000h at 500 °C

Vibration resistance at least 40g acceleration at 10 to 2000 Hz,

depends on installation

**Shock resistance** at least 100g acceleration with 8ms half sine

wave, depends on installation

Environmental conditions unhoused for dry environments only

**Insulation resistance** > 100 M $\Omega$  at 20°C; > 2 M $\Omega$  at 500°C

Self heating 0.3 K/mW at 0°C

**Response time** water current (v= 0.4m/s):  $t_{0.5} = 0.08$ s

 $t_{0.9} = 0.25s$  air stream (v= 2m/s):  $t_{0.5} = 3.7s$ 

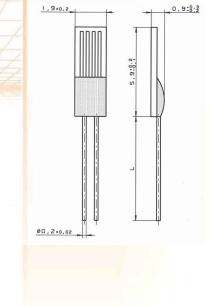
 $t_{0.9} = 11.5s$ 

Measuring current 2000 $\Omega$ : 0.1 to 0,3mA

(self heating has to be considered)

Note Other tolerances, values of resistance and wire

lengths are available on request.





We reserve the right to make alterations and technical data printed. All technical data serves as a guideline and does not guarantee particular properties to any products.

Name of document: 30910022 Index D

Status: 07/2015

