

## Platinum Resistance Temperature Detector

L 220

L series PRTDs are designed for large volume applications where long term stability, interchangeability and accuracy over a large temperature range are vital. Typical applications are Automotive, White goods, HVAC, Energy management, Medical and Industrial equipment.

| Nominal Resistance R0 | Tolerance<br>DIN EN 60751<br>1996-07 | Tolerance<br>DIN EN 60751<br>2009-05 | Order Number<br>Plastic Box |
|-----------------------|--------------------------------------|--------------------------------------|-----------------------------|
| 100 Ohm at 0°C        | Class 1/3 B                          | F 0,1                                | 32 207 588                  |
|                       | Class A                              | F 0,15                               | 32 207 584                  |
|                       | Class B                              | F 0,3                                | 32 207 400                  |
| 1000 Ohm at 0°C       | Class B                              | F 0,3                                | 32 207 733                  |
|                       | Class A                              | F 0,15                               | 32 207 738                  |

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

### Specification

DIN EN 60751 (according to IEC 751)

### Temperature range

-50°C to +400°C (continuous operation)  
 Tolerance Class B: -50°C to +400°C  
 Tolerance Class A: -50°C to +300°C  
 Tolerance Class 1/3 B: 0°C to +150°C

### Temperature coefficient

TCR = 3850 ppm/K

### Leads

AgPd- wire

### Lead lengths (L)

10mm ±1mm

### Long-term stability

max. R<sub>0</sub>-drift 0.04% after 1000 h at 400°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 MΩ at 20°C; > 2 MΩ at 400°C

### Self heating

0.4 K/mW at 0°C

### Response time

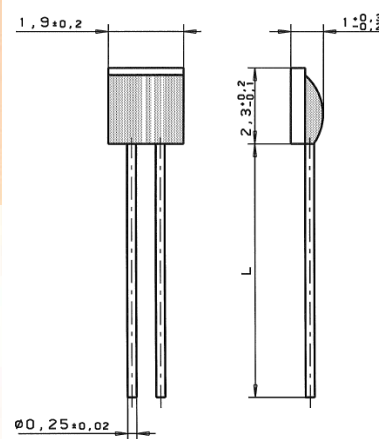
water current (v= 0.4 m/s):  
 $t_{0.5} = 0.06s$   
 $t_{0.9} = 0.20s$   
 air stream (v= 2 m/s):  
 $t_{0.5} = 3.0s$   
 $t_{0.9} = 13.0s$

### Measuring current

100Ω: 0.3 to 1.0mA  
 1000Ω: 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.

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