

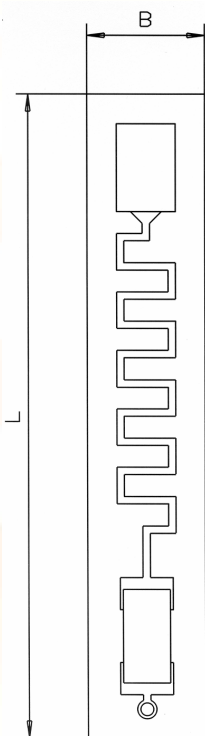
Platinum Resistance Temperature Detector

PCB (0805)

This platinum temperature sensor on a printed circuit board has been specially designed for use in calorimetry. When designing these sensors, the stringent requirements of this sector with regard to precision, long-term stability, cost minimisation as well as the option for fully automatic further processing were of prime concern. The temperature sensor in an SMD model forms the measurement active element on a PCB. The chip is connected with the terminal faces via meandering circuit board conductors in order to reduce heat dissipation and to prevent corruption of the measuring results. As a cable set sensor, it is suitable for a wide range of applications within a temperature range of 0°C to 150°C.

| Nominal Resistance R ₀ | Order No. | Dimensions in mm | | FC Type |
|-----------------------------------|------------|------------------|-----|---------|
| | | L | B | |
| 100 | 30 201 075 | 22 | 2,5 | 0805 |
| 500 | 30 201 073 | 22 | 2,5 | 0805 |
| 1000 | 30 201 063 | 22 | 2,5 | 0805 |
| 10000 | 30 201 080 | 22 | 2,5 | 0805 |
| 100 | 30 201 071 | 22 | 4,0 | 0805 |
| 500 | 30 201 069 | 22 | 4,0 | 0805 |
| 1000 | 30 201 067 | 22 | 4,0 | 0805 |
| 10000 | 30 201 081 | 22 | 4,0 | 0805 |

| | |
|--------------------------------------|---|
| Specification | DIN EN 60751 |
| Tolerance classes | Class B; Pt 10000: Class 2B |
| Temperature range | 0°C to 150°C |
| Temperature coefficient | TC = 3850 ppm/K |
| Long-term stability | ≤ 0.1 K after 1000 h at 150°C (energized with Pt 100: 1.0 mA; Pt 500: 0.7 mA; Pt 1000: 0.3 mA) |
| Measuring current | 100 Ohm: 0.3 to 1.0 mA 500 Ohm: 0.1 to 0.7 mA 1000 Ohm: 0.1 to 0.3 mA 10000 Ohm: 0.1 to 0.25 mA (self heating has to be considered) |
| Self-heating | 0.15 K/mW in ice water |
| Track Resistance | Meander: 0.06 Ohm |
| Temperature change resistance | ≤ 0.1 K after 1000 change 0°C/150°C in air |
| Contact | Cu connection pad with chem. Sn surface |
| Soldering | 1) Chip is soldered lead free 2) Connection pads are ready for lead free soldering |
| Ambient conditions | Use unprotected only in dry environments |
| Response time | water (v = 0,4 m/s): t _{0,5} = 0.05 s t _{0,9} = 0.10 s air (v=2 m/s): t _{0,5} = 1.5 s t _{0,9} = 5.0 s |
| Packaging | Supplied in plastic container |
| Storage life | 12 months |
| Note | Other tolerances and values of resistance 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.

DWM & Associates, Inc.

1901 Route 130

North Brunswick, NJ 08902

Phone 732-940-4400 Fax 732-940-4445

Email sales@dwm.ai.com

www.dwm.ai.com

U.S. & Canadian distributor for Heraeus Sensor Technology