

Platinum Resistance Temperature Detector

L 420

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 DIN EN 60751 1996-07 | Tolerance DIN EN 60751 2009-05 | Order Number Plastic Bag |
|-----------------------|--------------------------------------|--------------------------------------|-----------------------------|
| 100 Ohm at 0°C | Class B | F 0.3 | 32 207 702 |
| 500 Ohm at 0°C | Class B | F 0.3 | 32 207 703 |
| 1000 Ohm at 0°C | Class 1/3 B | F 0.1 | 32 207 587 |
| | Class A | F 0.15 | 32 207 582 |
| | Class B | F 0.3 | 32 207 704 |

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

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|---------------------------------|--|--|
| 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. R0-drift 0.04% after 1000h 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 500°C | |
| Self heating | 0.3 K/mW at 0°C | |
| Response time | water current (v= 0.4m/s): | t _{0.5} = 0.08s t _{0.9} = 0.25s |
| | air stream (v= 2m/s): | t _{0.5} = 3.5s t _{0.9} = 15.0s |
| Measuring current | 100Ω: 0.3 bis 1.0 mA 500Ω: 0.1 bis 0.7 mA 1000Ω: 0.1 bis 0.3 mA (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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