

Platinum Resistance Temperature Detector

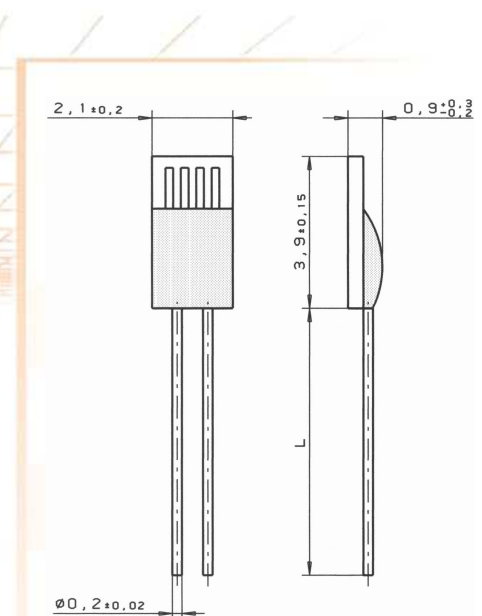
M 422

M series PRTDs are especially robust and 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 R ₀ | Tolerance DIN EN 60751 1996-07 | Tolerance DIN EN 60751 2009-05 | Order Number Plastic Bag | Order Number Blister reel |
|-----------------------------------|--------------------------------------|--------------------------------------|-----------------------------|------------------------------|
| 100 Ohm at 0°C | Class 1/3 B | F 0.1 | 32 208 500 | 32 208 522 |
| | Class A | F 0.15 | 32 208 498 | 32 208 521 |
| | Class B | F 0.3 | 32 208 392 | 32 208 520 |
| 500 Ohm at 0°C | Class 1/3 B | F 0.1 | 32 208 502 | 32 208 525 |
| | Class A | F 0.15 | 32 208 501 | 32 208 524 |
| | Class B | F 0.3 | 32 208 414 | 32 208 523 |
| 1000 Ohm at 0°C | Class 1/3 B | F 0.1 | 32 208 537 | |
| | Class A | F 0.15 | 32 208 503 | 32 208 527 |
| | Class B | F 0.3 | 32 208 499 | 32 208 526 |

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 | -70°C to +500°C (continuous operation) (temporary use to 550°C possible) Tolerance Class B: -70°C to +500°C Tolerance Class A: -50°C to +300°C Tolerance Class 1/3 B: 0°C to +150°C | |
| Temperature coefficient | TC = 3850 ppm/K ; 3750 ppm/K available on request | |
| Leads | Pt clad Ni- wire Recommend connection technology: Welding, Crimping and Brazing | |
| Lead lengths (L) | 10mm ±1mm | |
| Longterm stability | max. R ₀ -drift 0.04% after 1000 h 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 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} = 0.07s t _{0.9} = 0.20s |
| | air stream (v= 2m/s): | t _{0.5} = 3.2s t _{0.9} = 11s |
| Measuring current | 100Ω: 0.3 to 1.0mA 500Ω: 0.1 to 0.7mA 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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