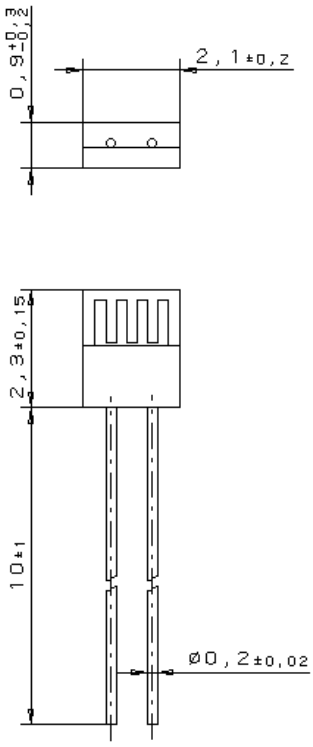
Platinum Resistance Temperature Detector M 222

Mseries 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 R_0	Tolerance	Order No. Plastic bag
100 Ohm at 0°C	DIN EN 60751, class B DIN EN 60751, class A DIN EN 60751, class 1/3 DIN	32 208 548 32 208 550 32 208 551
500 Ohm at 0°C	DIN EN 60751, class B	32 208 706
1000 Ohm at 0°C	DIN EN 60751, class B DIN EN 60751, class A DIN EN 60751, class 1/3 DIN	32 208 571 32 208 572 32 208 707

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



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 DIN: 0 °C to + 150 °C
Temperature coefficient	TCR = 3850 ppm/K
Leads	Pt clad Ni wire
Long-term stability	max. R_0-drift 0.04% after 1000 h at 500°C
Vibration resistance	at least 40 g acceleration at 10 to 2000 Hz, depends on installation
Shock resistance	at least 100 g 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	0.4 K/mW at 0°C
Response time	water current (v = 0.4 m/s): $t_{0.5}$ = 0.05 s; $t_{0.9}$ = 0.15 s air stream (v = 2 m/s): $t_{0.5}$ = 3.0 s; $t_{0.9}$ = 10.0 s
Measuring current	100 Ω: 0.3 to 1.0 mA 500 Ω: 0.1 to 0.7 mA 1000 Ω: 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.

Heraeus Sensor Technology GmbH, Reinhard-Heraeus-Ring 23, 63801 Kleinostheim,Germany
Phone: +49 (0) 6181/35-8098, Fax: +49 (0)6181/35-8101, E-Mail: info.HSND@Heraeus.com, Web:www.heraeus-sensor-technology.com

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