

Platinum Resistance Temperature Detector

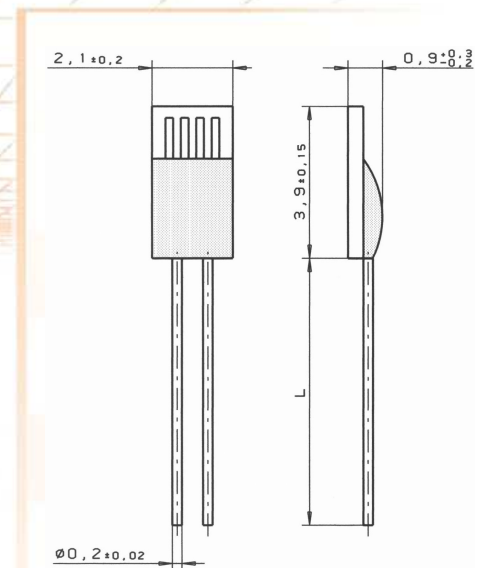
M 422

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	Order No. Plastic bag	Order No. Blister reel
100 Ohm at 0°C	DIN EN 60751, class B	32 208 392	32 208 520
	DIN EN 60751, class A	32 208 498	32 208 521
	DIN EN 60751, class 1/3 DIN	32 208 500	32 208 522
500 Ohm at 0°C	DIN EN 60751, class B	32 208 414	32 208 523
	DIN EN 60751, class A	32 208 501	32 208 524
	DIN EN 60751, class 1/3 DIN	32 208 502	32 208 525
1000 Ohm at 0°C	DIN EN 60751, class B	32 208 499	32 208 526
	DIN EN 60751, class A	32 208 503	32 208 527
	DIN EN 60751, class 1/3 DIN	32 208 537	

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	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)	10 mm +- 1 mm	
Longterm 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 M Ω at 20 °C; > 2 M Ω at 500 °C	
Self heating	0.3 K/mW at 0 °C	
Response time	water current ($v = 0.4$ m/s):	$t_{0.5} = 0.07$ s $t_{0.9} = 0.20$ s
	air stream ($v = 2$ m/s):	$t_{0.5} = 3.2$ s $t_{0.9} = 11$ s
Measuring current	100 Ω : 0.3 to 1.0 mA 500 Ω : 0.1 to 0.7 mA 1000 Ω : 0.1 to 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.

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