

## Platinum Resistance Temperature Detector

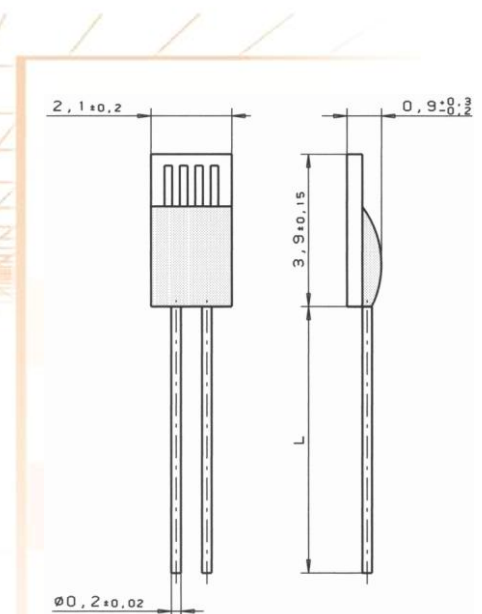
M 422

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 <sub>0</sub>	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.

<b>Specification</b>	DIN EN 60751 (according to IEC 751)	
<b>Temperature range</b>	-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	
<b>Temperature coefficient</b>	TC = 3850 ppm/K ; 3750 ppm/K available on request	
<b>Leads</b>	Pt clad Ni- wire Recommend connection technology: Welding, Crimping and Brazing	
<b>Lead lengths (L)</b>	10mm ±1mm	
<b>Longterm stability</b>	max. R <sub>0</sub> -drift 0.04% after 1000 h at 500 °C	
<b>Vibration resistance</b>	at least 40g acceleration at 10 to 2000 Hz, depends on installation	
<b>Shock resistance</b>	at least 100g acceleration with 8ms half sine wave, depends on installation	
<b>Environmental conditions</b>	unhoused for dry environments only	
<b>Insulation resistance</b>	> 100 MΩ at 20°C; > 2 MΩ at 500°C	
<b>Self heating</b>	0.3 K/mW at 0°C	
<b>Response time</b>	water current (v= 0.4m/s):	t <sub>0.5</sub> = 0.07s t <sub>0.9</sub> = 0.20s
	air stream (v= 2m/s):	t <sub>0.5</sub> = 3.2s t <sub>0.9</sub> = 11s
<b>Measuring current</b>	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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