

Platinum Resistance Temperature Detector

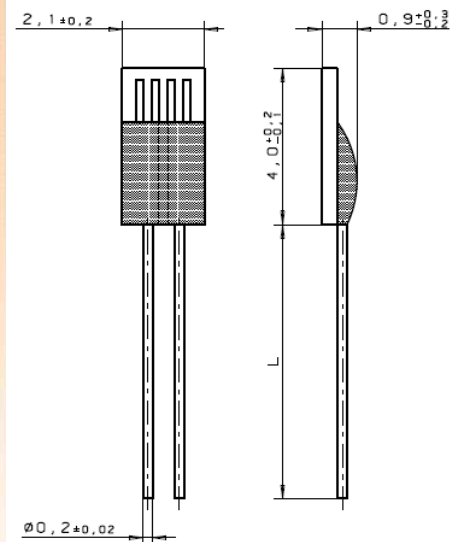
M 422

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.

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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