

Platinum Resistance Temperature Detector

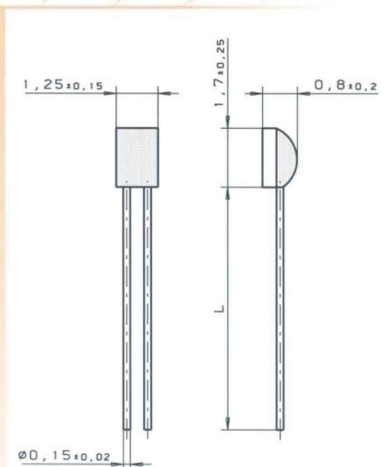
M 213

M series 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 DIN EN 60751 1996-07	Tolerance DIN EN 60751 2009-05	Order Number Plastic Box
100 Ohm at 0°C	Class 1/3 B	F 0.1	32 207 692
	Class A	F 0.15	32 207 691
	Class B	F 0.3	32 207 690
1000 Ohm at 0°C	Class B	F 0.3	32 207 695

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	
Leads	Pt clad Ni- wire Recommended connection technology: Welding, Crimping and Brazing	
Lead lengths (L)	10mm ±1mm	
Long-term stability	max. R ₀ -drift 0.04% after 1000h 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	0.6 K/mW at 0°C	
Response time	water current (v= 0.4m/s):	t _{0.5} = 0.04s t _{0.9} = 0.12s
	air stream (v= 2m/s):	t _{0.5} = 2.2s t _{0.9} = 7.0s
Measuring current	100Ω: 0.3 to 1.0 mA 1000Ω: 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.	



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