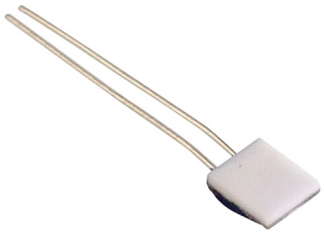
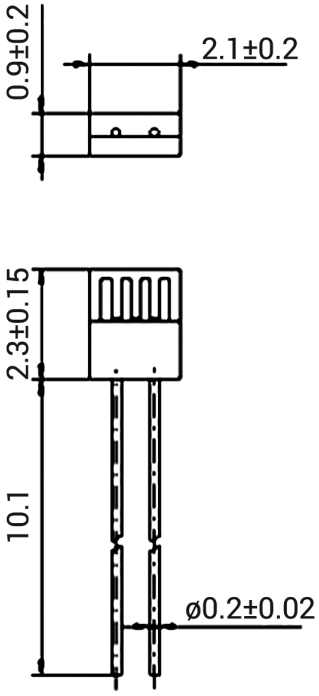
PLATINUM RESISTANCE TEMPERATURE DETECTOR

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 1/3DIN	CZ PT100-2,3x2,1/B CZ PT100-2,3x2,1/A CZ PT100-2,3x2,1/1,3B
500 Ohm at 0°C	DIN EN 60751, class B	CZ PT500-2,3x2,1/B
1000 Ohm at 0°C	DIN EN 60751, class B DIN EN 60751, class A DIN EN 60751, class 1/3DIN	CZ PT1000-2,3x2,1/B CZ PT1000-2,3x2,1/A CZ PT1000-2,3x2,1/1,3B

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 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 1000h at 500°C
Vibration resistance	at least 40g acceleration at 10 to 2000Hz, 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	> 100MΩ at 20°C; > 2MΩ at 500°C
Self heating	0.4K/mW at 0°C
Response time	water current (v = 0.4m/s); $t_{0.5}$= 0.05s; $t_{0.9}$= 0.15s; air stream (v = 2m/s): $t_{0.5}$= 3.0s; $t_{0.9}$= 10.0s;
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.