

Platinum Temperature Sensor in Thin-film Technology

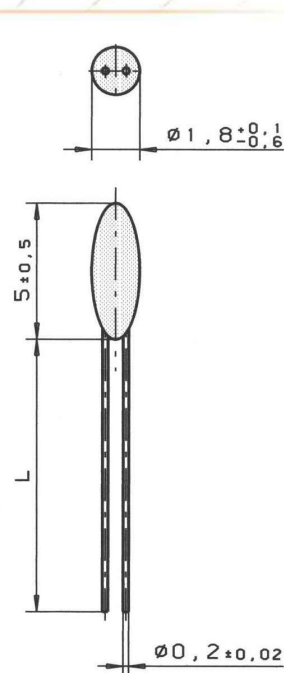
MR 518 G

MR 518 G platinum temperature sensors are characterized by their small, drop-form design. They are also characterized by high long-term stability, excellent precision over a wide temperature range and compatibility. They are used in the white goods, HVAC and energy generation industries as well as in medical and industrial appliances and machinery.

Nominal Resistance R0	Tolerance DIN EN 60751 1996-07	Tolerance DIN EN 60751 2009-05	Order Number Plastic Bag
100 Ohm at 0°C	Class B	F 0.3	32 209 504
100 Ohm at 0°C	Class A	F 0.15	32 209 505

The measuring point for the nominal resistance is 8mm from the end of the sensor body

Specification	DIN EN 60751
Temperature range	-70°C to +500°C (continuous operation) Tolerance Class B: -70°C to +500°C Tolerance Class A: -50°C to +300°C
Temperature coefficient	TCR = 3850 ppm/K
Leads	Pt clad Ni wire
Lead lengths (L)	10mm +1mm / -2mm
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
Shock resistance	At least 100g acceleration with 8 ms half sine wave
Ambient conditions	Use unprotected only in dry environments
Insulation resistance	> 100 MΩ at 20°C; > 2 MΩ at 500°C
Self-heating	0.4 K/mW at 0°C
Response time	Water current (v= 0.4m/s): Air flow (v= 2m/s):
	t _{0.5} = 0.2s t _{0.9} = 0.4s t _{0.5} = 3.0s t _{0.9} = 9.0s
Measuring current	100Ω: 0.3 to 1.0mA



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