

Platinum Temperature Sensor in Thin-film Technology

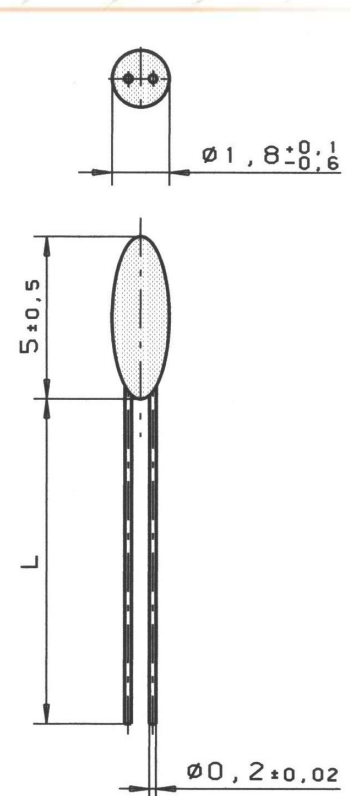
MR 518 G

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 R ₀	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):	t _{0.5} = 0.2s t _{0.9} = 0.4s
	Air flow (v= 2m/s):	t _{0.5} = 3.0s t _{0.9} = 9.0s
Measuring current	100Ω: 0.3 to 1.0mA	



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Heraeus Sensor Technology GmbH, Reinhard- Heraeus- Ring 23, 63801 Kleinostheim, Germany
Phone: +49 (0) 6181/35-8098, Fax: +49 (0)6181/35-8101, E-Mail: info.HSND@Heraeus.com Web: www.heraeus-sensor-technology.com