Platinum Resistance Temperature Detector M 219

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, Appliances, HVAC, Energy Management, Life Science and the process industry.

Nominal Resistance R_0	Tolerance	Order No.
100 Ohm at 0°C	DIN EN 60751, class B	tbd

The measuring point for the nominal resistance is defined at 6 mm from the end of the sensor body.

Specification: DIN EN 60751

Temperature range: -70°C to + 500°C (continuous operation)
(temporary use to 550 °C possible)

Tolerance class: Class A –50°C to +300°C

Temperature coefficient: TC = 3850 ppm/K

Leads: Pt clad Ni wire

Long-term stability: Max. R_0-Drift 0.04% after 1000 h at 500°C

Vibration resistance: at least 40 g acceleration at 10 to 2000 Hz,
depending on installation

Shock resistance: at least 100 g acceleration with 8ms
half-sine-wave, depends on installation

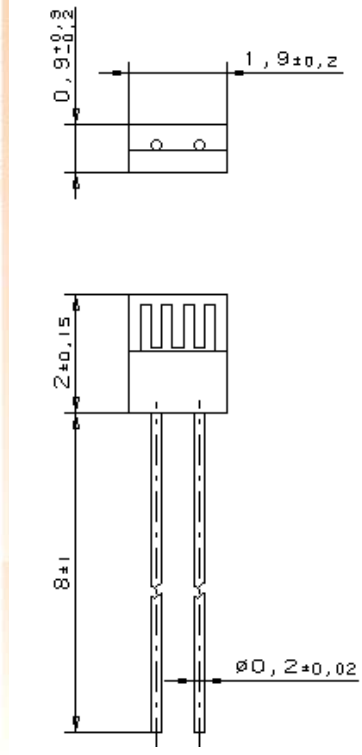
Environmental conditions: unhoused for dry environments only

Insulation resistance: > 100 MΩ at 20°C; > 2 MΩ at 500°C

Self heating: 0.5 K/mW at 0°C

Measuring current: 100 Ω: 0.3 to 1.0 mA
1000 Ω: 0.1 to 0.3 mA
(Self heating has to be considered)

Response time: Water current (v = 0.4 m/s):
$t_{0,5}$ = 0.05 s; $t_{0,9}$ = 0.15 s
Air stream (v = 2.0 m/s):
$t_{0,5}$ = 3.0 s; $t_{0,9}$ = 10.0 s



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

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