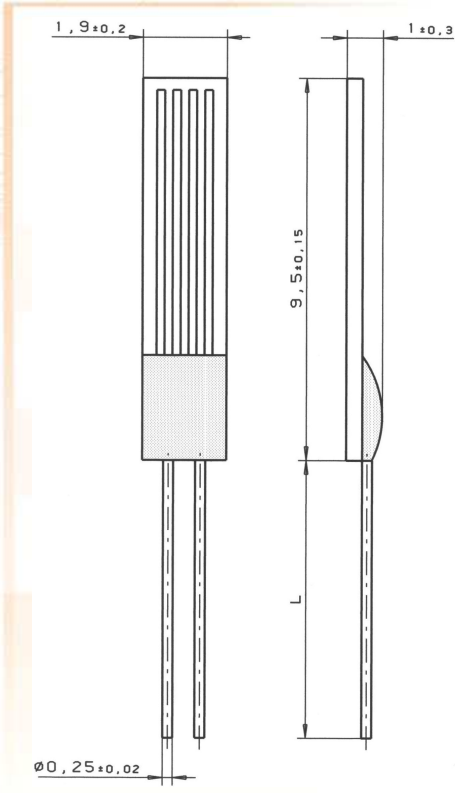
Platinum Resistance Temperature Detector MH 1020

M- series PRTDs are designed for large volume applications where long term stability, interchange ability 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℃	DIN EN 60751, class B	32 207 361
500 Ohm at 0℃	DIN EN 60751, class B	32 207 451
1000 Ohm at 0℃	DIN EN 60751, class B	32 207 481

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



Specification DIN EN 60751 (according to IEC 751)

Temperature range -70℃ to 600℃ (continuous operation)
Tolerance class B: - 70℃ to + 600℃
Tolerance class A: - 50℃ to + 300℃

Temperature coefficient TCR = 3850 ppm/K

Leads AuPd

Lead lengths (L) 10 mm +- 1 mm

Long-term stability max. R_0-drift 0.04% after 1000 h at 600℃

Vibration resistance at least 40 g acceleration at 10 to 2000 Hz, depends 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℃; > 2 M Ω at 500℃

Self heating 0.2 K/mW at 0℃

Response time

water current (v = 0.4 m/s):	$t_{0.5}$ = 0.12 s
	$t_{0.9}$ = 0.30 s
air stream (v = 2 m/s):	$t_{0.5}$ = 6.0 s
	$t_{0.9}$ = 20.0 s

Measuring current
100 Ω: 0.3 to 1.0 mA
500 Ω: 0.1 to 0.7 mA
1000 Ω: 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.

For brazing and soldering of the leads only brazing/solder alloys should be used which are specified for brazing/soldering to gold alloys.

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