

## Platinum Resistance Temperature Detector

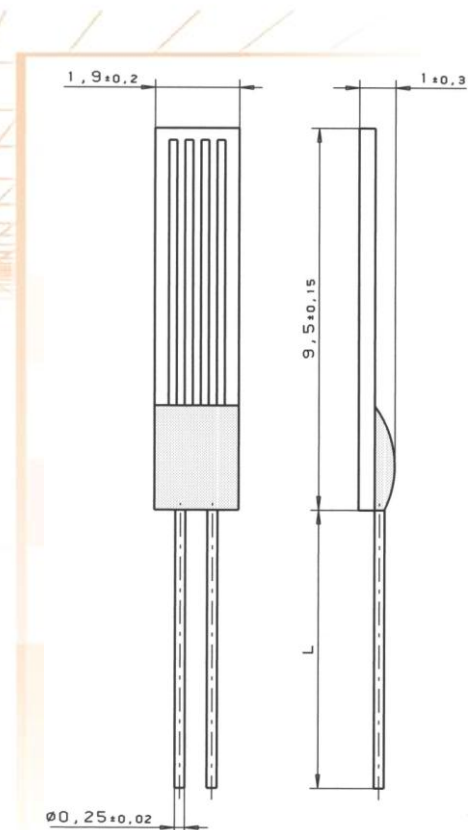
## MH 1020

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 <sub>0</sub>	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	32 207 361
500 Ohm at 0°C	Class B	F 0.3	32 207 451
1000 Ohm at 0°C	Class B	F 0.3	32 207 481

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

<b>Specification</b>	DIN EN 60751 (according to IEC 751)	
<b>Temperature range</b>	-70°C to 600°C (continuous operation) Tolerance Class B: -70°C to +600°C Tolerance Class A: -50°C to +300°C	
<b>Temperature coefficient</b>	TC = 3850 ppm/K	
<b>Leads</b>	AuPd- wire	
<b>Lead lengths (L)</b>	10mm ±1 mm	
<b>Long-term stability</b>	max. R <sub>0</sub> -drift 0.04% after 1000h at 600°C	
<b>Vibration resistance</b>	at least 40g acceleration at 10 to 2000 Hz, depends on installation	
<b>Shock resistance</b>	at least 100g acceleration with 8ms half sine wave, depends on installation	
<b>Environmental conditions</b>	unhoused for dry environments only	
<b>Insulation resistance</b>	> 100 MΩ at 20°C; > 2 MΩ at 500°C	
<b>Self heating</b>	0.2 K/mW at 0°C	
<b>Response time</b>	water current (v= 0.4m/s):	t <sub>0,5</sub> = 0.12s t <sub>0,9</sub> = 0.30s
	air stream (v= 2m/s):	t <sub>0,5</sub> = 6.0s t <sub>0,9</sub> = 20.0s
<b>Measuring current</b>	100Ω: 0.3 to 1.0mA 500Ω: 0.1 to 0.7mA 1000Ω: 0.1 to 0.3mA (self heating has to be considered)	
<b>Note</b>	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.

We reserve the right to make alterations and technical data printed. All technical data serves as a guideline and does not guarantee particular properties to any products.

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](mailto:info.HSND@Heraeus.com) Web: [www.heraeus-sensor-technology.com](http://www.heraeus-sensor-technology.com)