

## Platinum Resistance Temperature Detector

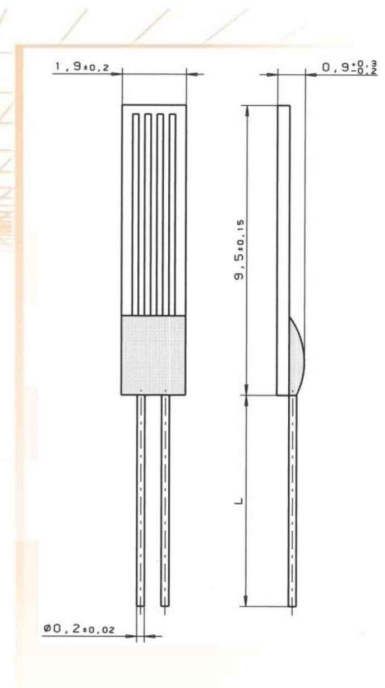
## M 1020

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, White Goods, HVAC, Energy Management, Medical and Industrial equipment.

Nominal Resistance R0	Tolerance DIN EN 60751 1996-07	Tolerance DIN EN 60751 2009-05	Order Number Plastic Bag	Order Number Blister reel
100 Ohm at 0°C	Class 1/3 B	F 0.1	32 208 180	32 208 428
	Class A	F 0.15		32 208 429
	Class B	F 0.3		32 208 280
500 Ohm at 0°C	Class B	F 0.3	32 208 201	32 208 285
1000 Ohm at 0°C	Class 1/3 B	F 0.1	32 208 191	32 208 483
	Class A	F 0.15		32 208 439
	Class B	F 0.3		32 208 286

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 +500°C (continuous operation) (temporary use to 550°C possible)	
	Tolerance Class B:	-70°C to +500°C
	Tolerance Class A:	-50°C to +300°C
	Tolerance Class 1/3 DIN:	0°C to +150°C
<b>Temperature coefficient</b>	TC = 3850 ppm/K	
<b>Leads</b>	Pt clad Ni- wire Recommend connection technology: Welding, Crimping and Brazing	
<b>Lead lengths (L)</b>	10mm ±1 mm	
<b>Long-term stability</b>	max. R <sub>0</sub> -drift 0.04% after 1000h at 500°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> = 0.10s t <sub>0,9</sub> = 0.30s
	air stream (v= 2m/s):	t <sub>0,5</sub> = 4.0s t <sub>0,9</sub> = 12.0s
<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.	



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