

## Platinum Resistance Temperature Detector

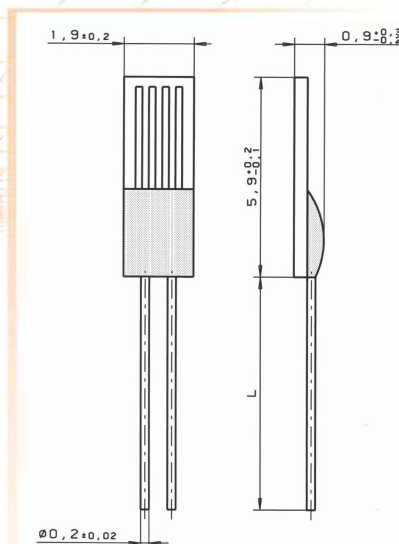
## M 620

M series PRTDs are designed for large volume applications where long term stability, interchangeability and accuracy over a large temperature range are vital. Due to the high resistance values of 1000  $\Omega$  and 2000  $\Omega$  the signal gain is excellent. Typical applications are found in Automotive, White goods, HVAC, 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
1000 Ohm at 0°C	Class B	F 0.3	32 208 181
2000 Ohm at 0°C	Class B	F 0.3	32 208 541

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

<b>Spezification</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	
<b>Temperature coefficient</b>	TCR = 3850 ppm/K	
<b>Leads</b>	Pt clad Ni- wire Recommend connection technology: Welding, Crimping and Brazing	
<b>Lead lengths (L)</b>	10mm $\pm$ 1mm	
<b>Longterm 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 M $\Omega$ at 20°C; > 2 M $\Omega$ at 500°C	
<b>Self heating</b>	0.3 K/mW at 0°C	
<b>Response time</b>	water current (v= 0.4m/s):	t <sub>0.5</sub> = 0.08s t <sub>0.9</sub> = 0.25s
	air stream (v= 2m/s):	t <sub>0.5</sub> = 3.7s t <sub>0.9</sub> = 11.5s
<b>Measuring current</b>	1000 $\Omega$ : 0.1 to 0,3mA 2000 $\Omega$ : 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.	



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.

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