

## Platinum Resistance Temperature Detector

## MN 222

MN- 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
100 Ohm at 0°C	Class A	F 0.15	32 207 759
	Class B	F 0.3	32 207 758
	Class 2B	F 0.6	32 207 757
500 Ohm at 0°C	Class A	F 0.15	32 207 761
	Class B	F 0.3	32 207 756
	Class 2B	F 0.6	32 207 755
1000 Ohm at 0°C	Class A	F 0.15	32 207 754
	Class B	F 0.3	32 207 753
	Class 2B	F 0.6	32 207 751

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>	Tolerance Class A: -50°C to +300°C Tolerance Class B: -70°C to +500°C Tolerance Class 2B: -70°C to +500°C  (temporary use at Cl. B and 2B to 550°C possible)
<b>Temperature coefficient</b>	TCR = 3850 ppm/K
<b>Leads</b>	Ni- wire Recommend connection technology: Welding and Brazing
<b>Lead lengths (L)</b>	10mm ±1mm
<b>Ambient 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>	0.4 K/mW at 0°C
<b>Response time</b>	water current (v= 0.4m/s): air stream (v= 2m/s): $t_{0.5} = 0.05s$ $t_{0.9} = 0.15s$ $t_{0.5} = 3.0s$ $t_{0.9} = 10.0s$
<b>Measuring current</b>	100Ω: 0.3 to 1.0mA 500Ω: 0.1 to 0.7mA 1000Ω: 0.1 bis 0.3mA (self heating has to be considered)
<b>Application advice</b>	1. To avoid shear forces on the connection area, the connection wires may be neither split or bent. The bending may only take place 3 mm after the element, using a bending or splitting tool. 2. Other nominal values, lengths and temperature coefficients on request. 3. Due to a production-caused oxide layer coating the leads, soft-soldering is restricted.
<b>Note</b>	Other tolerances, values of resistance 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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