Heraeus

Platinum Resistance Temperature Detector

HL 420 Pt 1000

HL 420 type platinum sensors are characterised by long-term stability, precision over a broad temperature range and compatibility. The main feature is the small design. They are used in particular for applications with high consumption volumes, e.g. white goods, heating power and process technology.

Nominal Resistance R ₀	Tolerance	Order No. Blister box
1000 Ohm at 0°C	DIN EN 60751, Class 2B	32 208 204

The measuring point for the nominal resistance is defined at 4 mm from the end of the sensor body.

Specification	DIN EN 60751	
Temperature range	- 70°C up to + 750°C	
Temperature coefficient	TCR = 3850 ppm/K	
Leads	PtRh	
Lead lengths (L)	PtRh 6 mm +- 1mm	
Long-term tests	1000 h at 750°C (energized) smaller then the allowed deviation according to DIN B.	
Environmental conditions	Unhoused for dry environmental only, up to 600°C in housings also as clean MI-type possible, above 600°C no reducing atmosphere, free air admission necessary.	
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	
Insulation resistance	> 100 MOhm at 20 °C; > 2 MOhm at 650 °C	
Self heating	0.2 K/mW	
Response time	Water current (v = 0.4 m/s): $t_{0.5} = 0.07$ s; $t_{0.9} = 0.2$ s Air stream (v = 2 m/s): $t_{0.5} = 3.2$ s; $t_{0.9} = 11$ s	
Measuring current	0.1 to 0,5 mA (self heating has to be considered)	
Packaging	Plastic bag	
Note	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.

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, Web:www.heraeus-sensor-technology.com

Heraeus Sensor Technology