

Platinum Resistance Temperature Detector

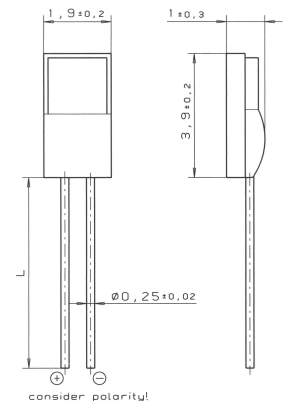
HA 420

HA 420 platinum temperature sensors are characterized by long-term stability, precision over a broad temperature range and compatibility. Main application areas are within the automotive industry. For measuring high temperatures you should use a sensor, which reliably works in rough environments, has a long expectancy of life and ideally comes up with the space-saving concepts of the automotive industry.

Nominal Resistance R_0	Tolerance	Order No. Blister box
200 Ohm at 0°C	HST – Tolerance 0°C: +4.5 K; 500°C: +7.5 K; 1000°C: +15 K	32 208 772

The measuring point for the nominal resistance is defined at 6 mm from the end of the sensor body.

Specification	HST (Heraeus Sensor Technology)	
Temperature Range	-70°C up to +1000°C	
Temperature coefficient	TC = 3770 ppm/K	
Leads	Pt	
Lead lengths (L)	4 mm +/- 1mm	
Long-term tests	1000h at 1000°C 2mA, ΔRO typical < 3k	
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	
Environmental conditions	Unhoused for dry environment only, Up to 650°C in housings also as MI-type possible, above 650°C no reducing atmosphere, free air admission necessary	
Insulation resistance	>100 MOhm at 20°C	
Self heating	0.2 K/mW at 0 °C	
Response time	Water current (v = 0.4 m/s):	$t_{0.5} = 0.05$ s $t_{0.9} = 0.17$ s
	Air stream (v = 2 m/s):	$t_{0.5} = 3.3$ s $t_{0.9} = 13.0$ s
Measuring current	20°C: 5 mA ; 1000°C: max. 2.7 mA (self heating has to be considered)	
Note	Other tolerances, values of resistance and wire lengths are available on request. When connecting the sensor, proper polarity has to be maintained!!! See drawing.	



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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