

Platinum Resistance Temperature Detector

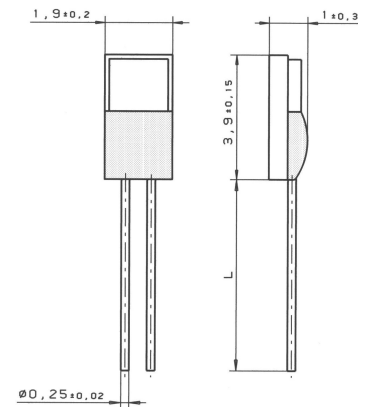
HDA 420

HDA 420 platinum temperature sensors are characterized by long-term stability, precision over a broad temperature range and compatibility. Main application areas are applications within the automotive industry. The HDA 420 was specifically developed to withstand the harsh operating conditions and meet the long-term performance requirements of the transportation 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; 850°C: ± 12.7 K	32 208 771

The measuring point for the nominal resistance is defined at 2 mm from the end of the lead.

Specification	HST (Heraeus Sensor Technology)	
Temperature Range	-70°C up to +850°C (short time to 900°C)	
Temperature coefficient	TC = 3770 ppm/K	
Leads	Pt	
Lead lengths (L)	4 mm \pm 0,5 mm	
Long-term tests	50 h at 900°C 2mA 1000h at 850°C 2V	
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-typossible, 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 ($v = 3$):	$t_{0.5} < 3$ s $t_{0.9} < 11$ s
Measuring current	20°C: 5 mA ; 850°C: max. 2.8 mA (self heating has to be considered)	
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.

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