

## Platinum Resistance Temperature Detector

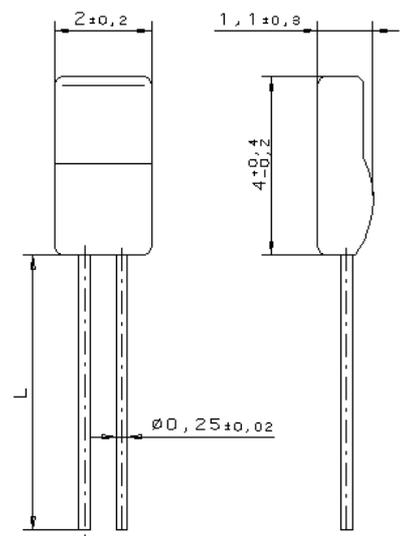
## HDA 421 Pt 200

HDA 421 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. 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: $\pm 4.5$ K; 500°C: $\pm 7.5$ K; 850°C: $\pm 12.7$ K	32 208 763

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

<b>Specification</b>	HST (Heraeus Sensor Technology)
<b>Temperature Range</b>	-70°C up to +850°C (short time to 900°C)
<b>Temperature coefficient</b>	TC = 3770 ppm/K
<b>Leads</b>	Pt
<b>Lead length (L)</b>	8 mm $\pm$ 1mm
<b>Long-term tests</b>	500 h at 900°C 2mA 1750h at 850°C 2V
<b>Vibration resistance</b>	at least 40 g acceleration at 10 to 2000 Hz, depends on installation
<b>Shock resistance</b>	at least 100 g acceleration with 8ms half sine wave, depends on installation
<b>Environmental conditions</b>	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
<b>Insulation resistance</b>	>100 MOhm at 20°C
<b>Self heating</b>	0.2 K/mW at 0 °C
<b>Response time</b>	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
<b>Measuring current</b>	20°C: 5 mA ; 850°C: max. 2.8 mA (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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