

## Platinum Resistance Temperature Detector

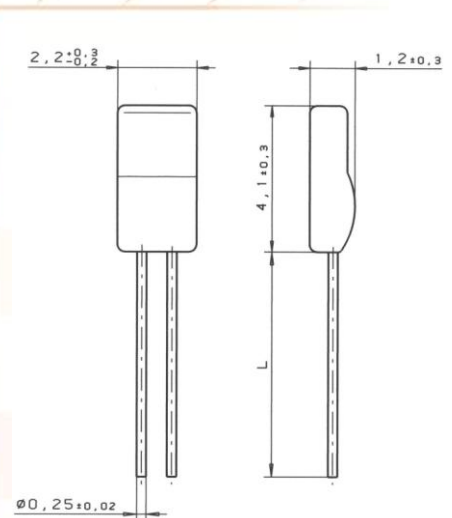
## HD 421

HD 421 Pt 100-type platinum temperature sensors are characterized by long-term stability, precision over a broad temperature range and compatibility. Main application area is the process technology.

Nominal Resistance R0	Tolerance DIN EN 60751 1996-07	Tolerance DIN EN 60751 2009-05	Order Number Plastic Box
100 Ohm at 0°C	Class B (to 650°C) Class 2B (to+850°C)	F 0.3 (to 650°C) F 0.6 (to 850°C)	32 208 228

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

<b>Specification</b>	DIN EN 60751	
<b>Temperature range</b>	-70°C up to +850°C Tolerance Class B: -70°C up to +650°C Tolerance Class 2B: -70°C up to +850°C	
<b>Temperature coefficient</b>	TC = 3850 ppm/K	
<b>Leads</b>	Pt- wire	
<b>Lead length (L)</b>	6mm ±1mm	
<b>Long-term tests</b>	1000h at 850°C (energized, open) smaller then the allowed deviation according to DIN B. 1000 h at 650°C (under current as clean MI-type) smaller then the allowed deviation according to DIN B	
<b>Vibration resistance</b>	at least 40g acceleration with 8ms half sine wave signal, depends on the installation	
<b>Shock resistance</b>	at least 100g acceleration at frequencies from 10Hz up to 2000Hz, depends on the installation	
<b>Environmental conditions</b>	Unhoused for dry environment only, Up to 650°C in housings also as clean MI-type possible, above 650°C no reducing atmosphere, free air admission necessary	
<b>Insulation resistance</b>	>100 MΩ at 20°C; >2 MΩ at 650°C	
<b>Self heating</b>	0.2 K/mW	
<b>Response time</b>	Water current (v= 0.4m/s):	t <sub>0,5</sub> = 0.05s t <sub>0,9</sub> = 0.17s
	Air stream (v= 2m/s):	t <sub>0,5</sub> = 3.3s t <sub>0,9</sub> = 13.0s
<b>Measuring current</b>	20°C max. 5mA; 850°C max. 2.8mA (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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