

Platinum Resistance Temperature Detector

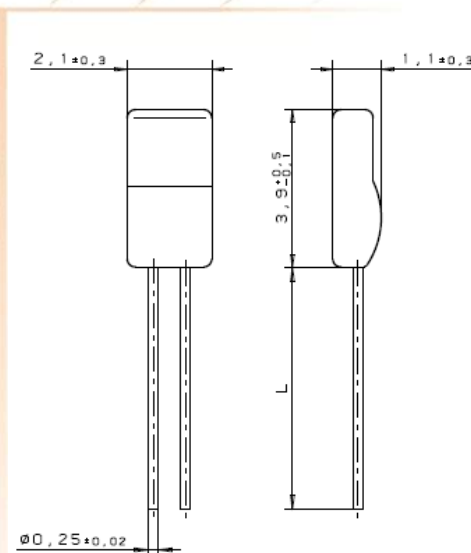
HD 421

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.

Specification	DIN EN 60751
Temperature range	-70°C up to +850°C Tolerance Class B: -70°C up to +650°C Tolerance Class 2B: -70°C up to +850°C
Temperature coefficient	TCR= 3850 ppm/K
Leads	Pt- wire
Lead length (L)	6mm ±1mm
Long-term tests	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
Vibration resistance	at least 40g acceleration with 8ms half sine wave signal, depends on the installation
Shock resistance	at least 100g acceleration at frequencies from 10Hz up to 2000Hz, depends on the installation
Environmental conditions	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
Insulation resistance	>100 MΩ at 20°C; >2 MΩ at 650°C
Self heating	0.2 K/mW
Response time	Water current (v= 0.4m/s): Air stream (v= 2m/s):
	$t_{0.5} = 0.05s$ $t_{0.9} = 0.17s$ $t_{0.5} = 3.3s$ $t_{0.9} = 13.0s$
Measuring current	20°C max. 5mA; 850°C max. 2.8mA (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.

Heraeus Sensor Technology USA

1901 Route 130
North Brunswick, NJ 08902
Phone 732-940-4400 Fax 732-940-4445
Email info.hst-us@heraeus.com
www.hst-us.com

Name of document: 30910034 Index B
Status: 03/2014