Heraeus

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

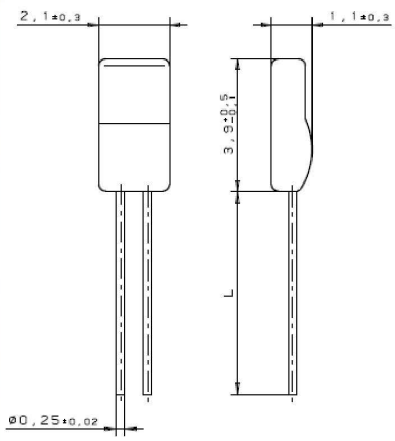
Insulation resistance >100 MΩ at 20°C; >2 MΩ at 650°C

Self heating 0.2 K/mW

Response time
Water current (v= 0.4m/s): $t_{0.5}$ = 0.05s, $t_{0.9}$ = 0.17s
Air stream (v= 2m/s): $t_{0.5}$ = 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.



RoHS conform

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