Platinum Resistance Temperature Detector HD 421 Pt 100

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 R_0	Tolerance Up to 650°C	Tolerance Up to 850°C	Order No. Blister box
100 Ohm at 0°C	DIN EN 60751, class B	DIN EN 60751, class 2B	32 208 228

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

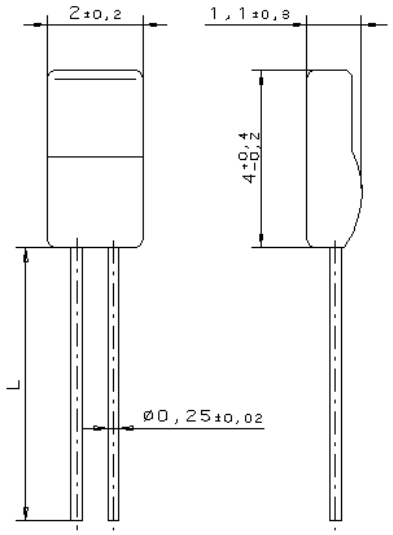
Specification DIN EN 60751

Temperature range - 70°C up to + 850°C

Temperature coefficient TCR = 3850 ppm/K

Leads Pt

Lead length (L) 6 mm +- 1mm



Long-term tests 1000 h 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 MOhm at 20°C; >2 MOhm at 650°C

Self heating 0.2 K/mW

Response time 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

Measuring current up to 1 mA (self heating has to be considered)

Note Other tolerances, values of resistance and wire lengths are available on request.

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