L 416, Platinum Resistance Temperature Detector according to DIN EN 60751

Temperature range -50 °C to +400 °C

L-series platinum temperature sensors are characterized by long term stability, excellent precision over a wide temperature range and compatibility. They are used particularly for applications with high consumption volumes, typically in the HVAC and energy industries as well as in medical and industrial appliances and machinery.

Nominal Resistance R0	Tolerance	Order Number
	DIN EN 60751 2009-05	Plastic box
100 Ohm at 0 °C	F 0.15 (Class A) F 0.3 (Class B)	32 207 583 32 207 440

The measuring point for the nominal resistance is defined at 8 mm from the end of the sensor body.

Temperature and tolerance range

-50 °C to +400 °C (continuous operation)
tolerance class F 0.3 (B): -50 °C to +400 °C
tolerance class F 0.15 (A): -50 °C to +300 °C

Temperature coefficient

TCR = 3850 ppm/K

Response time

Water current (v= 0.4m/s): t0.5 = 0.07 s
t0.9 = 0.25 s
Air stream (v= 2m/s): t0.5 = 3.2 s
t0.9 = 14.0 s

Measuring current

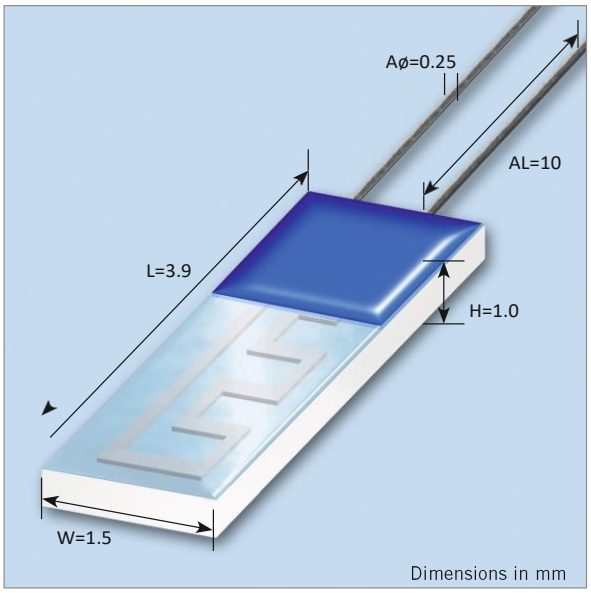
100 Ω: 0.3 to 1.0 mA
(self-heating has to be considered)

Long-term stability

R0-Drift 0.04 % after 1000 hours at 400 °C

Self-heating

0.4 K/mW at 0 °C



Insulation resistance

> 100 MΩ at 20 °C
> 2 MΩ at 400 °C

Vibration resistance

At least 40 g acceleration at 10 to 2000 Hz, depends on installation

RoHS konform

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Temperature range -50 °C to +400 °C

Shock resistance
At least 100 g acceleration with 8 ms half sine wave, depends on installation

Leads
AgPd-wire

Lead lengths (L)
10 mm ± 1 mm

Connection technology
Suitable for soft soldering
(note application temperature of the solder)

Tensile strength for leads
≥ 8 N

Packaging
VCI-plastic bag

Storage life
Min. 12 month (in original packaging)
nitrogen atmosphere recommended

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

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