

L 416, Platinum Temperature Sensor 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 R_0	Tolerance	Order Number	Packaging
100 Ohm at 0 °C	F 0.10 (Class 1/3 B) F 0.15 (Class A) F 0.3 (Class B)	32 307 439 32 207 583 32 207 440	VCI-plastic bag

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

Temperature and tolerance range

Tolerance class F 0.3 (B): -50 °C to +400 °C
 Tolerance class F 0.15 (A): -50 °C to +300 °C
 Tolerance class F 0.10 (1/3 B): 0 °C to +150 °C
 Continuous operation

Temperature coefficient

TCR = 3850 ppm/K

Response time

Water current ($v= 0.4\text{m/s}$): $t_{0.5} = 0.07\text{ s}$
 $t_{0.9} = 0.25\text{ s}$
 Air stream ($v= 2\text{m/s}$): $t_{0.5} = 3.2\text{ s}$
 $t_{0.9} = 14.0\text{ s}$

Measuring current

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

Long-term stability

R_0 -Drift 0.04 % after 1000 hours at +400 °C

Self-heating

0.4 K/mW at 0 °C

Insulation resistance

> 100 M Ω at +20 °C
 > 2 M Ω at +400 °C

Vibration resistance

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

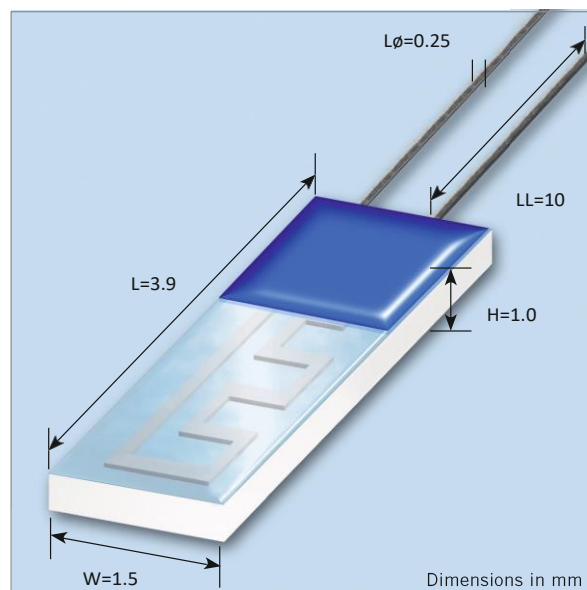
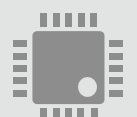


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L 416, Platinum Temperature Sensor according to DIN EN 60751

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 (LL)

10 mm \pm 1 mm

Connection technology

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

Tensile strength for leads

\geq 8 N

Packaging

Alternative packaging forms on request.

Storage life

At least 12 months (after manufacture), when stored under the recommended conditions. Longer shelf life may be possible, depending upon actual storage conditions, after requalification by customer.

Nitrogen atmosphere recommended

Note

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



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