

L 420, Platinum Temperature Sensor according to DIN EN 60751

Temperature range -50 °C to $+400\text{ °C}$

L series PRTDs are designed for large volume applications where long-term stability, interchangeability and accuracy over a large temperature range are vital. Typical applications are Automotive, White goods, HVAC, Energy management, Medical and Industrial equipment.

Nominal Resistance R_0	Tolerance	Order Number	Packaging
1000 Ohm at 0 °C	F 0.1 (Class 1/3 B) F 0.15 (Class A) F 0.3 (Class B)	32 207 587 32 207 582 32 207 704	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 $+400\text{ °C}$
 Tolerance class F 0.15 (A): -50 °C to $+300\text{ °C}$
 Tolerance class F 0.1 (1/3 B): 0 °C to $+150\text{ °C}$
 Continuous operation

Temperature coefficient

TCR = 3850 ppm/K

Response time

Water current ($v= 0.4\text{m/s}$): $t_{0.5} = 0.08\text{ s}$
 $t_{0.9} = 0.25\text{ s}$
 Air stream ($v= 2\text{m/s}$): $t_{0.5} = 3.5\text{ s}$
 $t_{0.9} = 15.0\text{ s}$

Measuring current

1000 Ω : 0.1 to 0.3 mA
 (self-heating has to be considered)

Long-term stability

R_0 -Drift 0.04 % after 1000 hours at $+400\text{ °C}$

Self-heating

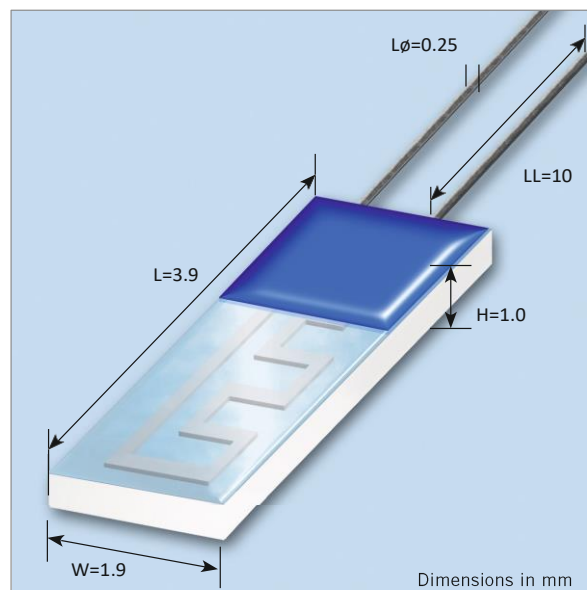
0.3 K/mW at 0 °C

Insulation resistance

$> 100\text{ M}\Omega$ at $+20\text{ °C}$
 $> 2\text{ M}\Omega$ at $+400\text{ °C}$

Vibration resistance

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

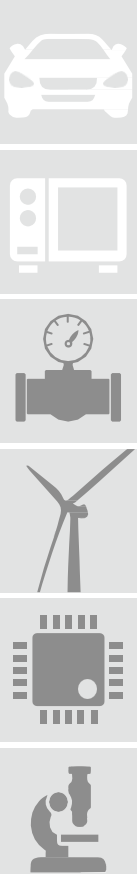


Dimensions in mm
 Image for illustration purposes only



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Temperature range $-50\text{ }^{\circ}\text{C}$ to $+400\text{ }^{\circ}\text{C}$

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 of 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.

California Proposition 65



WARNING:

This product can expose you to chemicals including lead oxide, which is known to the State of California to cause cancer and birth defects or other reproductive harm, and including cobalt oxide, which is known to the State of California to cause cancer. For more information go to www.p65warnings.ca.gov.



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