



C 416, Platinum Temperature Sensor according to DIN EN 60751

Temperature range -196 °C to +500 °C

The C series thin-film PRTDs combine the ideal curve characteristics of ceramic wire-wound RTDs with the vibration resistance of glass wire-wound RTDs and represent an excellent alternative to wire-wound RTDs. They are characterized by high long-term stability, excellent temperature shock resistance and a wide temperature range of -196 °C to +500 °C, they show no hysteresis. These features make them best suited for applications in aerospace, chemical and power generation plants and analytical equipment.

Nominal Resistance R_0	Tolerance	Order Number	Packaging
100 Ohm at 0 °C	F 0.3 (Class B)	32 208 519	Blister reel

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): -196 °C to +500 °C

Temperature coefficient

TCR = 3850 ppm/K

Response time

Water current (v= 0.4m/s):
 $t_{0.5} = 0.07$ s
 $t_{0.9} = 0.25$ s

Air stream (v= 2m/s):
 $t_{0.5} = 3.2$ s
 $t_{0.9} = 14.0$ s

Measuring current

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

Long-term stability

R_0 -Drift 0.03 % after 1000 hours at 500 °C

Self-heating

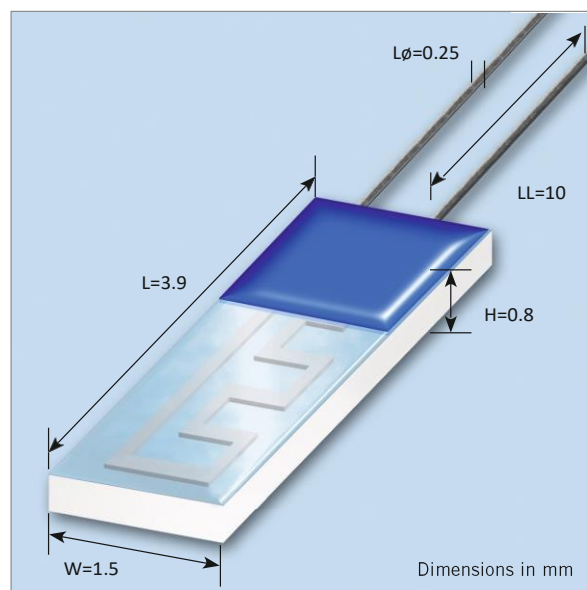
0.4 K/mW at 0 °C

Insulation resistance

> 100 M Ω at 20 °C
 > 2 M Ω at 500 °C

Vibration resistance

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

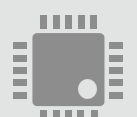


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C 416, Platinum Temperature Sensor according to DIN EN 60751

Temperature range -196 °C to +500 °C

Shock resistance

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

Leads

AuPd-wire

Lead lengths (LL)

10 mm ± 1 mm

Connection technology

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

Only brazing/solder alloys should be used which are specified for brazing/soldering to gold alloys.

Tensile strength of leads

≥ 5 N

Packaging

Alternative packaging forms on request.

Storage life

Min. 12 month (in original packaging)

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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