L220, Pt Temperature Sensor according to DIN EN IEC 60751

Temperature range -50 °C to +400 °C

- Excellent long term stability and low drift
- High accuracy and interchangeability
- High vibration and shock resistance
- Optimized for soldering connection

L series Pt-RTDs are designed for volume applications where long term stability, interchangeability and accuracy over a large temperature range are vital. Typical applications include Energy Management, HVAC, Food and Beverage, Medical and Industrial equipment. AgPd lead wires assure problem-free connection via soldering and other processes.

Nominal Resistance R_0 [Ω]	Tolerance Class	Order Number	Packaging
Pt100	F 0.1 (1/3 B) F 0.15 (A) F 0.3 (B)	32207588 32207584 32207400	VCI-Plastic bag VCI-Plastic bag VCI-Plastic bag
Pt1000	F 0.15 (A) F 0.3 (B)	32207738 32207733	VCI-Plastic bag VCI-Plastic bag

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

Temperature Range of Tolerance Class

Validity of Class F 0.1 (1/3 B)	0 °C to +150 °C
Validity of Class F 0.15 (A)	-50 °C to +300 °C
Validity of Class F 0.3 (B)	-50 °C to +400 °C

The specified tolerance classes refer to continuous operation.

Temperature Coefficient

TCR = 3850 ppm/K

Response Time

Water (v = 0.4 m/s):	t0.5 = 0.06 s t0.9 = 0.2 s
Air (v = 2 m/s):	t0.5 = 3 s t0.9 = 13 s

Measuring Current

Pt100 Ω: 0.3 to 1 mA
Pt1000 Ω: 0.1 to 0.3 mA
(self-heating has to be considered)

Dimensions and Tolerances in mm

L: 2.4 +0.2 -0.1
W1: 1.9 ±0.2
H: 1.0 +0.3 -0.2
LL: 10 ±1.0
Lø: 0.25 ±0.02
W2: 0.8 ±0.1

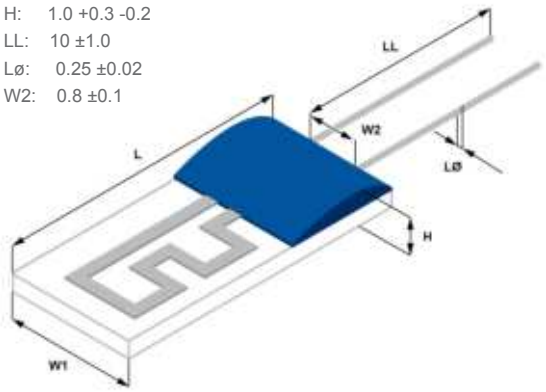


Image for illustration purposes only
Color, shape and forming of fixing drop may vary

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Temperature range -50 °C to +400 °C

Long-Term Stability
The drift of the resistance value at 0 °C after a storage for 1000 hours in air at the declared upper temperature limit is not more than the tolerance value of the declared tolerance class according DIN EN IEC 60751.
Typical drift of R(0 °C) is 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

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

Connection Technology
Soft Soldering
Note application temperature of the solder

Lead Type
AgPd

Tensile Strength of Leads
≥ 8 N

Packaging
VCI-Plastic bag
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.

Due to random sample measurements, a bending of connection wires may occur (called V-shape). This bending is batch-dependent and has no influence on the functionality of the platinum measuring resistor.

RoHS compliant

The information provided in this data sheet describes certain technical characteristics of the product, but shall not be qualified or construed as quality guarantee (Beschaffenheitsgarantie) in the meaning of sections 443 and 444 German Civil Code. The information provided in this data sheet regarding measurement values (including, but not limited to, response time, long-term stability, vibration and shock resistance, insulation resistance and self-heating) are average values that have been obtained under laboratory conditions in tests of large numbers of the product. Product results or measurements achieved by customer or any other person in any production, test, or other environment may vary depending on the specific conditions of use. YAGEO Nexensos does not recommend the use of standard catalogue products or automotive grades for aerospace applications or manned space flight. The customer is solely responsible to determine whether the product is suited for the customer's intended use; in this respect YAGEO Nexensos cannot assume any liability. The sale of any products by YAGEO Nexensos is exclusively subject to the General Terms of Sale and Delivery of YAGEO Nexensos in their current version at the time of purchase, which is available under www.yageo-nexensos.com/tc or may be furnished upon request. This data sheet is subject to changes without prior notice.

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