

HL220, Pt Temperature Sensor according to DIN EN 60751

Temperature range -70 °C to +750 °C

- Large operation window up to 750 °C
- High accuracy over a wide temperature range
- High vibration and shock resistance
- Optimized for welding and brazing
- Small footprint

HL 220 Pt-RTDs are characterized by long-term stability, and precision over a broad temperature range. They are used in automotive industry and process control. In principle, the products can also be used in automotive applications, in this case Heraeus will check upon the request of the customer, whether additional requirements can be met (e.g. IMDS, PPAP).

Nominal Resistance R_0 [Ω]	Tolerance Class	Order Number	Packaging
Pt1000	F 0.6 (Class 2B)	32208779	Plastic bag

The measuring point for the nominal resistance is 6 mm from the end of the sensor body.

Temperature Range of Tolerance Class

Tolerance Class F 0.6 (2B) -70 °C to +750 °C

Temperature Coefficient

TCR = 3850 ppm/K

Response Time

Water ($v = 0.4$ m/s): $t_{0.5} = 0.05$ s
 $t_{0.9} = 0.14$ s
 Air ($v = 2$ m/s): $t_{0.5} = 3$ s
 $t_{0.9} = 10$ s

Measuring Current

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

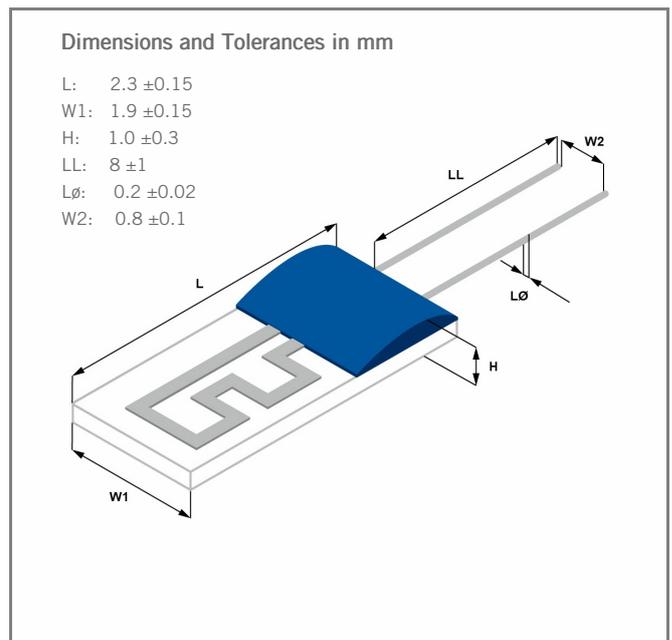


Image for illustration purposes only
 Color, shape and forming of fixing drop may vary

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Temperature range -70 °C to +750 °C

Long-Term Stability

R₀- Drift < 0.24 % after 1000 hours at 750 °C (energized)
(unhoused chip in standard atmosphere)

Self-Heating

0.4 K/mW at 0 °C

Insulation Resistance

> 100 MΩ at 20 °C
> 1 MΩ at 650 °C

Vibration Resistance

Depends on installation

Shock Resistance

Depends on installation

Connection Technology

Welding, Brazing

Lead Type

NiCr-Pt-jacket

Tensile Strength of Leads

≥ 9 N

Packaging

Plastic bag
Alternative packaging forms on request.

Storage Life

Min. 12 months (in original packaging)

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.

California Proposition 65



WARNING

WARNING: This product can expose you to chemicals including nickel and cobalt, which are known to the State of California to cause cancer.

For more information go to www.p65warnings.ca.gov



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.

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Page 2 of 2