

PCB 2225 / 2240 (0805), Platinum Resistance Temperature Detector according to DIN EN 60751 Temperature range -40 °C to +150 °C

This platinum temperature sensor on a printed circuit board has been specially designed for use in calorimetry. When designing these sensors, the stringent requirements of this sector with regard to precision, long-term stability, cost minimization as well as the option for fully automatic further processing were of prime concern. The temperature sensor in an SMD-FC model forms the measurement active element on a PCB. The chip is connected with the terminal faces via meandering circuit board conductors in order to reduce heat dissipation and to prevent corruption of the measuring results. As a cable set sensor, it is suitable for a wide range of applications within a temperature range of -40 °C to 150 °C.

Nominal Resistance R0	Tolerance	Type	Order number
	DIN EN 60751 2009-05		Blister box
100 Ohm 500 Ohm 1000 Ohm	F 0,3 (Class B)	PCB 2225	30 201 075 30 201 073 30 201 063
100 Ohm 500 Ohm 1000 Ohm		PCB 2240	30 201 071 30 201 069 30 201 067

Temperature range

-40 °C to +150 °C

Temperature coefficient

TCR = 3850 ppm/K

Response time

Water current (v= 0,4m/s):
 $t_{0.5} = 0.05$ s
 $t_{0.9} = 0.1$ s

Air stream (v= 2m/s):
 $t_{0.5} = 1.5$ s
 $t_{0.9} = 5.0$ s

Measuring current

100 Ω: 0.3 to 1.0 mA
 500 Ω: 0.1 to 0.7 mA
 1000 Ω: 0.1 to 0.3 mA

Long-term stability

≤ 0,1 K after 1000 hours at 150 °C energized with:
 Pt 100: 1.0 mA
 Pt 500: 0.7 mA
 Pt 1000: 0.3 mA

Self-heating

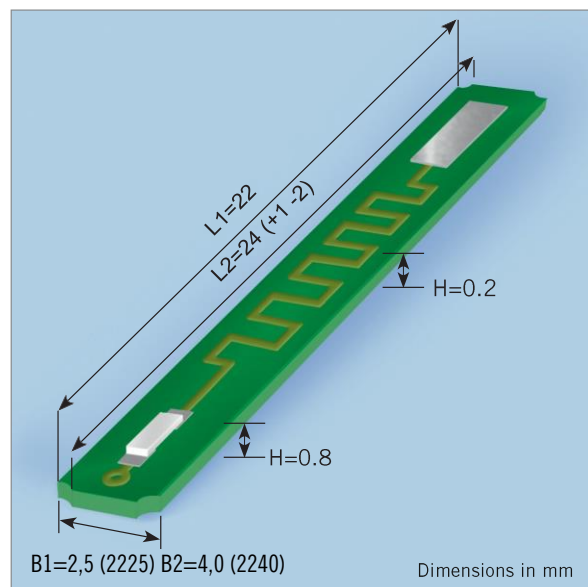
0.15 K/mW in ice water

Track Resistance

Meander: 0.06 Ω

Temperature change resistance

≤ 0.1 K after 1000 change 0 °C / 150 °C in air



Contact

Cu connection pad with chem. Sn surface

Soldering

- 1) Chip is soldered lead free
- 2) Connection pads are ready for lead free soldering



The information provided in this data sheet regarding the technical characteristics of the product describe the quality of the product, but shall not be qualified or construed as quality guarantees (Beschaffenheitsgarantie) in the meaning of sections 443 and 444 German Civil Code. The information provided in this data sheet regarding measurement values (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; measurements in productive use may vary significantly depending on the specific conditions of use.

The customer is solely responsible to check whether the product is suited for the intended use; in this respect Heraeus cannot assume any liability. The sale of any products of Heraeus is exclusively subject to the General Terms of Sale and Delivery of Heraeus in their current version, which is available under www.heraeus.com/gtc. This data sheet is subject to changes without prior notice.

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 Web: www.heraeus-nexensos.com

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Connection technology

Suitable for welding soft soldering

Packaging

Supplied in plastic container

Storage life

12 months

Nitrogen atmosphere recommended

Note

Other tolerances and values of resistance are available on request.

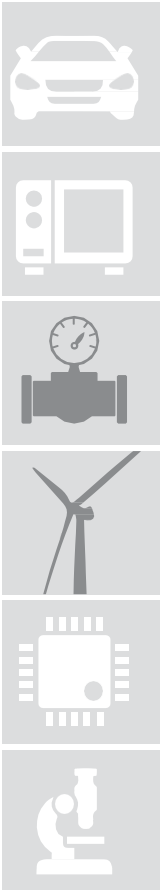
California Proposition 65

Affected order number: 30201067



WARNING:

This product can expose you to chemicals including N,N-Dimethylformamide, which is known to the State of California to cause cancer. For more information go to www.p65warnings.ca.gov.



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