



## TO 92, Housed Platinum Resistance Temperature Detector according to DIN EN 60751 Temperature range -50 °C to +150 °C

The PRTD in a plastic housing is characterized by its standardized signal according to DIN EN 60751 (according to IEC 751), interchangeability, excellent long-time stability and accuracy. It offers an optimal price-performance ratio in large volume applications including Domestic Appliances and Industrial Equipment.

Nominal Resistance R0	Tolerance	Order Number
	DIN EN 60751 2009-05	Plastic bag
100 Ohm at 0 °C	F 0.3 (Class B) F 0.6 (Class 2B)	32 209 210 32 209 216
1000 Ohm at 0 °C	F 0.3 (Class B) F 0.6 (Class 2B)	32 209 220 32 209 226

### Temperature and tolerance range

-50 °C to +150 °C (continuous operation)

Tolerance class F 0.3 (B): -50 °C to +150 °C

Tolerance class F 0.6 (2B): -50 °C to +150 °C

### Temperature coefficient

TK = 3850 ppm/K

### Response time

Water current (v= 0.4m/s): t0.5 = 0.7 s  
t0.9 = 2.0 s

Air stream (v= 2m/s): t0.5 = 8.0 s  
t0.9 = 26.0 s

### Measuring current

100 Ω: 0.3 to 1.0 mA

1000 Ω: 0.1 to 0.3 mA

(self-heating has to be considered)

### Long-term stability

R0-Drift 0.06 % after 1000 hours at 150 °C

### Self-heating

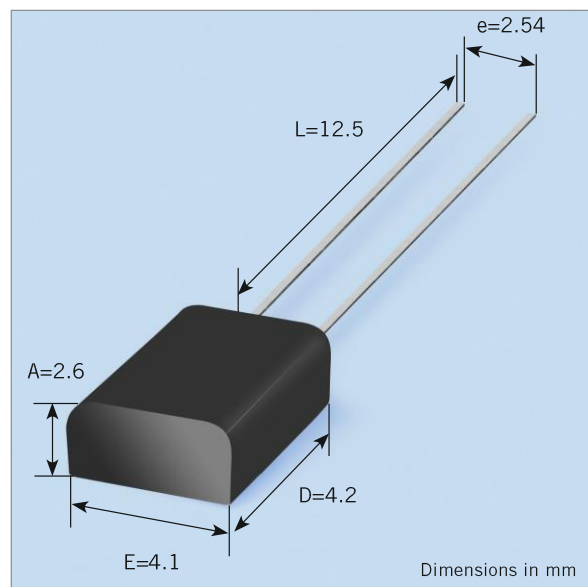
Pt100: 0.4 K/mW at 0 °C

Pt1000: 0.2 K/mW at 0 °C

### Specific volume resistance

20 °C:  $5 \times 10^{16} \Omega \text{cm}$

150 °C:  $5 \times 10^{13} \Omega \text{cm}$



### Physical data of housing

Material: duroplastic

Coefficient of thermal expansion:  $13 \times 10^{-6} \Omega/^\circ\text{C}$

Thermal conductivity: 0.65 W/mK

Moisture absorption: 0.5 % (P.C.T.: 121°C, 24 hours)



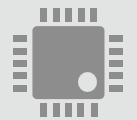
The information provided in this data sheet regarding the technical characteristics of the product describe the quality of the product, but shall not be qualified or construed as quality guarantees (Beschaffenheitsgarantie) in the meaning of sections 443 and 444 German Civil Code.

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](http://www.heraeus.com/gtc). This data sheet is subject to changes without prior notice.

Heraeus Nexensos GmbH, Reinhard-Heraeus-Ring 23, 63801 Kleinostheim, Germany

Web: [www.heraeus-nexensos.com](http://www.heraeus-nexensos.com)



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### Flammability

UL94-V0

### Soldering connection

Cu alloy Sn/Pb coating

### Length (L)

12.5 mm ± 0.5 mm

### Connection technology

suitable for soft soldering

### Packaging

Plastic bag

### Storage life

9 months (in original packaging)  
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 carbon black, which is known to the State of California to cause cancer. For more information go to [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov).



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