

GE Sensing

Features

- Connection leads made of gold plated brass, allow problem-free soft solder.
 - Small dimensions available
 - High electrical insulation is guaranteed by non-conductive edges and sides
 - Short response times
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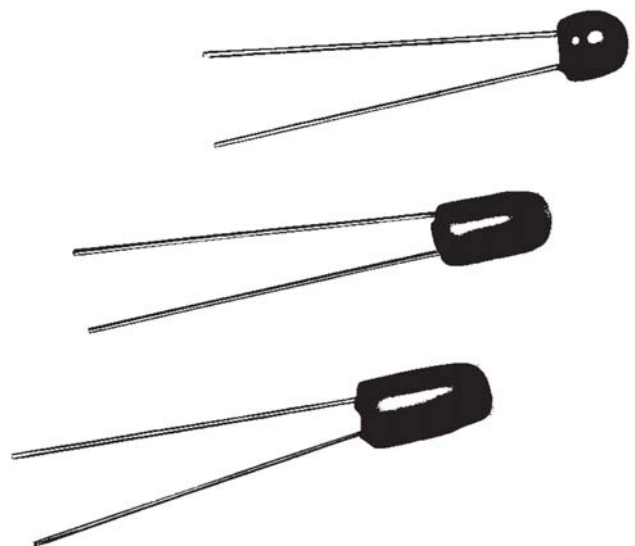
Applications

- Suited for surface measurement
 - Installation on printed circuit boards
 - Application in the auto industry
 - Resistance elements selected in tolerance groups for calorimetry
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NTC Types PRE/C

Thermometrics Thin-Film Resistance Elements

NTC Types PRE/C is a Thermometrics product. Thermometrics has joined other GE high-technology sensing businesses under a new name—GE Industrial, Sensing.



Types PRE/C Specifications

Description

A ceramic substrate supports a structured platinum layer covered with glass. The connection lead contacts are shear force resistant.

Options

Special versions on request. (Please take into account longer delivery time and minimum order quantity).

Examples of possible variations are:

- Narrower (than IEC) tolerances (indicate measurement point or range)
- Longer or shorter connection wires
- Connection wires in opposite direction: U-shaped
- Extension of the connection wires with all types of cables.
- Rigid connection clamps which enable automatic processing, i.e., assembly of printed circuit boards. (Temperature range -22°F to 356°F (-30°C to 180°C))

Data

Nominal Resistance Value

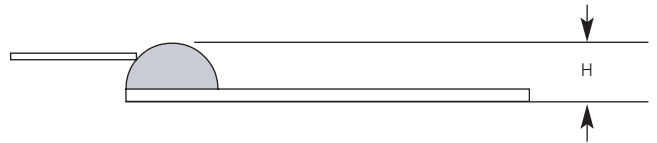
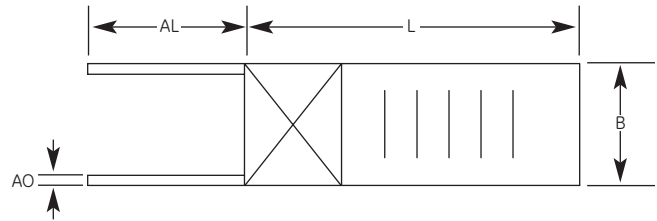
100 Ω , 500 Ω , 1000 Ω at 32°F (0°C)

Tolerance Grade

A and B according to IEC 751, and narrower tolerances in restricted temperature ranges. Selection in tolerance groups is also possible.

Temperature Range

-94°F to 482°F (-70°C to 250°C)



NTC Types PRE/C Dimensions

Connection Material

Gold plated brass wire

Temperature Stability

Slight hysteresis possible after temperature shocks.

Vibration Resistance

High resistance to vibration and shocks.

Mechanical Stability

Care must be taken when housing the elements; excessive stress may affect nominal resistance.

Environmental Conditions

Unhoused, for dry environment only.

Types PRE/C Specifications

Part Number	Nominal Resistance Ω @ 0°C	L	B	H	AL	AO	Self-Heating k/mW air stream v=1 m/s	Response Time in Seconds			
								water current v=0.4 m/s		air stream v=1 m/s	
								t=0.5	t=0.9	t=0.5	t=0.9

Class B

PT101C1002B1	100	9.5	1.9	1.1	10	0.2	0.20	0.2	0.4	4.2	12.7
PT501C1002B1	500	9.5	1.9	1.1	10	0.2	0.20	0.2	0.4	4.2	12.7
PT102C1002B1	1000	9.5	1.9	1.1	10	0.2	0.20	0.2	0.4	4.2	12.7
PT101C0403B1	100	3.9	2.9	1.1	10	0.2	0.35	0.2	0.5	4.1	13.6

Class A

PT101C1002D1	100	9.5	1.9	1.1	10	0.25	0.20	0.2	0.4	4.2	12.7
PT501C1002D1	500	9.5	1.9	1.1	10	0.25	0.20	0.2	0.4	4.2	12.7
PT102C1002D1	1000	9.5	1.9	1.1	10	0.25	0.20	0.2	0.4	4.2	12.7
PT101C0403D1	100	3.9	2.9	1.1	10	0.25	0.35	0.2	0.5	4.1	13.6

Class 1/3 DIN B

PT101C1002B3	100	9.5	1.9	1.1	10	0.25	0.20	0.2	0.4	4.2	12.7
PT501C1002B3	500	9.5	1.9	1.1	10	0.25	0.20	0.2	0.4	4.2	12.7
PT102C1002B31	1000	9.5	1.9	1.1	10	0.25	0.20	0.2	0.4	4.2	12.7
PT101C0403B3	100	3.9	2.9	1.1	10	0.25	0.35	0.2	0.5	4.1	13.6

Dimensional tolerances: L (length of body) and B (width) = ± 0.0059 in (± 0.15 mm), H (height, includes 0.0157 in (0.4 mm) substrate thickness) = maximum ± 0.0039 in (± 0.1 mm), AL (connection wire length) = ± 0.04 in (± 1.0 mm).

AO (connection wire diameter) = ± 0.00079 in (± 0.02 mm).

The measuring point for the basic value is situated at 0.079 in (2 mm) from the end of the sensor body.

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