

# Slot Type Resistance Temperature Detectors (SRTDs)

CE  
RoHS  
ATEX 

## Function:

Many applications require continuous temperature monitoring of various devices to measure average temperature in the slot / core, Slot RTDs can detect hot-spot in the winding. The Slot Resistance Temperature Detectors (SRTDs), due to their linear Resistance - Temperature characteristics, is used for temperature sensing, measurement & control of winding / machines.

Temperature up to 200°C can be monitored and controlled with this type of Slot RTDs.

The Slot RTDs are used widely to monitor the winding temperature of Electric Motors (AC & DC) and Alternators. Due to their various sizes the Slot RTDs can be placed directly in the stator slots.

**PT 1000 and PT 500 are also available on request**

## Features:

- Customize dimension of sensing element can be supplied on request.
- Available in wire wound version and Bit version.
- Various lead length and color codes wire can be supplied.
- Various color code UL approved lead wires can be supplied on request.
- Ex-stock delivery of standard Sizes.

Please contact us for readily available and standard designs.

## Applications:

The Slot RTDs can be used for continuous temperature indication and monitoring of the following:

- 1 AC Motors (HT)
- 2 DC Motors
- 3 AC Alternator
- 4 Transformers
- 5 Control Panel
- 6 Heat Sink and Bus Bar



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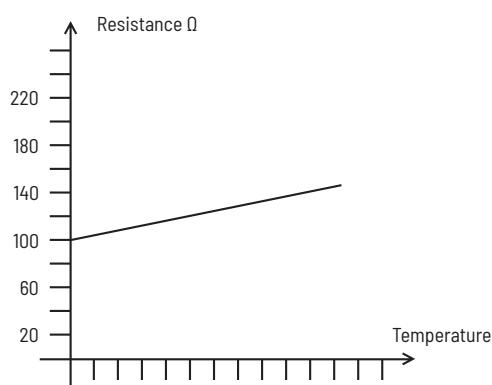
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## Resistance - Temperature Characteristic

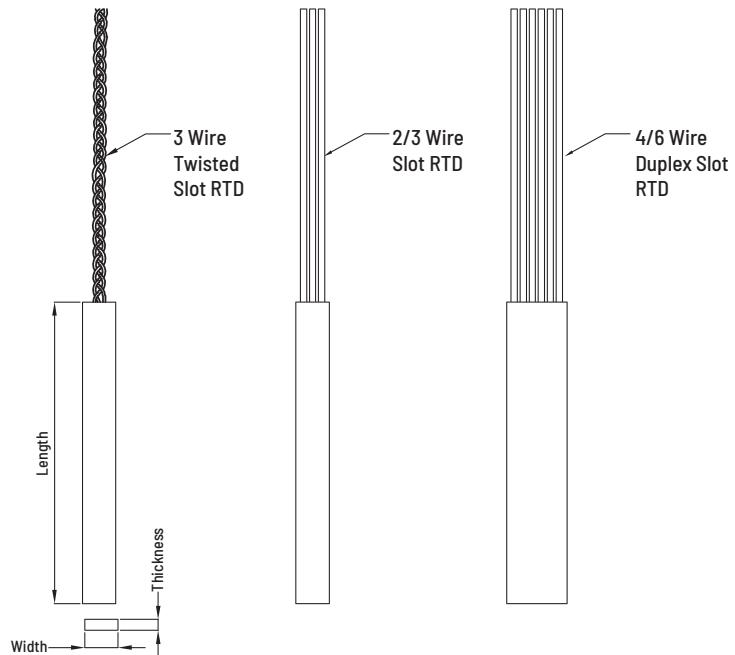
Following table gives the values of resistance at different temperatures and the graph shows the variation of resistance with the temperature rise. All the values are as per IEC 60751 Edition 2.0, 2008-07, BS EN 60751:2008 and IS 2848: 1986.

Temperature °C	Resistance Ω
0	100.00
10	103.90
20	107.79
30	111.67
40	115.54
50	119.40
60	123.24
70	127.07
80	130.89
90	134.70
100	138.50
110	142.29
120	146.06
130	149.82
140	153.58
150	157.31
160	161.04
170	164.76
180	168.46
190	172.16
200	175.84
210	179.51
220	183.19
230	186.84
240	190.47
250	194.10
260	197.69

The tolerance defined by the International Standard refers only to the sensing element.



## Schematic Drawing



## Standard Sizes of Slot RTD

Length	Width	Thickness	Versions
300	7	2	Wire Wound
250	7	2	Wire Wound
200	7	2	Wire Wound
150	7	2	Wire Wound
100	7	2	Bit
80	7	2	Bit
70	7	2	Bit
50	7	2	Bit
45	7	2	Bit
30	7	2	Bit

## Technical Details

- 1 Slot RTDs are Passive Components.
- 2 Dielectric Strength of standard Slot RTDs is 2.0 kV for 1 minute. Dielectric Strength more than 2.0 kV are also available on request
- 3 The Insulation Resistance between the wire leads & body of Slot RTDs is greater than 100MΩ
- 4 Rating: Temperature: - 30°C to + 180°C
- 5 The Resistance / Temperature relationship of the Slot RTDs is as per IEC 60751 Edition 2.0, 2008-07, BS EN 60751:2008 and IS 2848: 1986

## Other products from Insta Control

PTC Thermistor, Single TPU, Dual TPU, PT-100 RTDs, PT-100 BTDs, KTY Sensor, Space Heater & Thermal Switches (TOPs), ATEX & IEC Exe approved PT-100 Slot RTDs, Bead type PT-100 RTDs & Bearing RTDs are available on request.

ISO 9001 : 2015 Certified Company



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