



# Resistance Temperature DETECTORS

Many applications require continuous temperature monitoring of various devices. The Resistance Temperature Detectors (RTDs) and Bearing Temperature Detectors (BTDs), due to their linear Resistance-Temperature characteristic, are used for temperature sensing, measurement and control of these devices.

The output signal of RTD / BTD is a resistance signal, which varies linearly with the temperature. This is given to a temperature indicator or a temperature controller for achieving the desired measurement and control. Temperature upto 400°C can be monitored and controlled with these types of RTDs and BTDs.

The RTDs are used widely to monitor the winding temperature of Electric Motors and AC Generators (Alternators). Due to their various sizes the RTDs can be placed directly in the motor winding or can be fitted in the stator slots. The BTDs are mounted on the Motor / Generator bearings by providing suitable tapped holes on bearing housing.

## Features :-

1. Various lead lengths and colour codes of wires can be supplied.
2. Customized designs and enclosures.
3. Ex-stock delivery of standard models.

The RTDs are available in various dimensions right from small Bead type sensors to Plate type RTDs. The BTDs are manufactured as per customer requirements.

Please contact the factory for readily available and standard designs.

## Applications :-

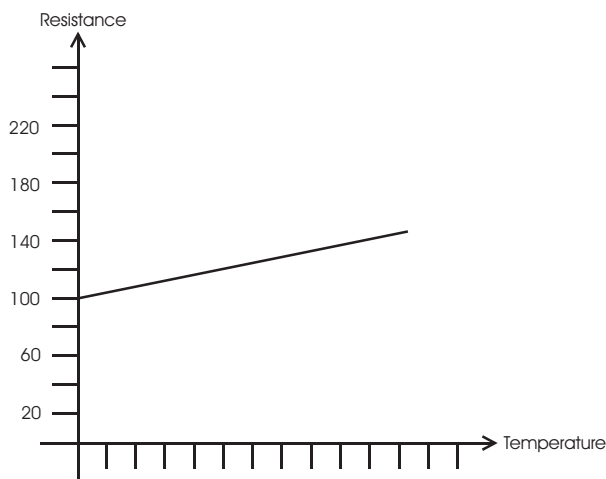
The RTDs and BTDs can be used for continuous temperature indication and monitoring for the following :

1. AC Motors.
2. DC Motors.
3. AC Generators (Alternators).
4. Transformers

## Resistance - Temperature Characteristic :-

Following table gives the values of resistance at different temperatures and the graphs shows the variation of resistance with the temperature. All the values are as per IS : 2848 -1986

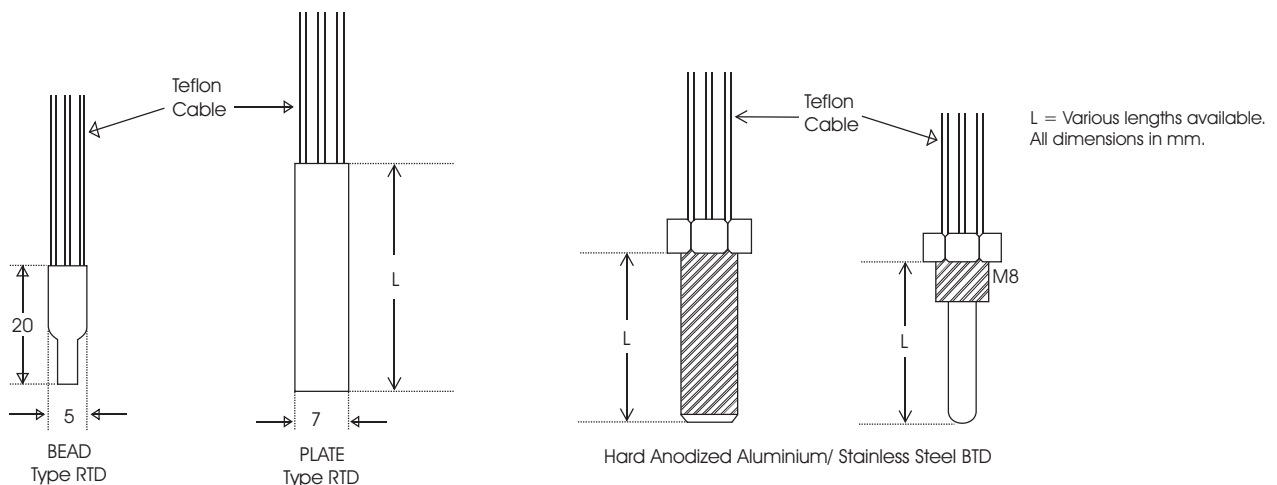
Temperature	Resistance	Temperature	Resistance
0° C	100.00	110° C	142.29
10° C	103.90	120° C	146.06
20° C	107.79	130° C	149.82
30° C	111.67	140° C	153.58
40° C	115.54	150° C	157.31
50° C	119.40	160° C	161.04
60° C	123.24	170° C	164.76
70° C	127.07	180° C	168.46
80° C	130.89	190° C	172.16
90° C	134.70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



## Technical Details :-

1. The Resistance / Temperature relationship of the RTDs and BTDs is as per IS :2848.
2. The RTDs and BTDs withstand a High Voltage test of 2.0KV for 1 minute.
3. The Insulation Resistance between the wire leads and body of RTDs and BTDs is greater than 100 Ω.

## Housing :-



Our other products: PTC Thermistors, Thermistor Protection Relays & Thermal Switches (TOP)

ISO 9001 : 2008 Certified Company



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