

## MINERAL INSULATED RESISTANCE TEMPERATURE DETECTORS (RTDS)

### CHARACTERISTICS

- High accuracy and stability
- No compensating cable
- No Cold Junction compensation
- Good linearity
- Rigid and robust construction providing good mechanical strength and high vibration endurance

ITH Ltd's range of Mineral Insulated Resistance Temperature Detectors (RTD's) comprise a wire wound or thin film Platinum Resistance Sensing device. The sensing elements resistance increases with temperature in a known and repeatable manner, and as a result exhibits an excellent accuracy over a wide temperature range. The Platinum RTD produces a more linear curve than thermocouples and is used when accuracy of output is important, as they are less sensitive to change than thermocouples.

Platinum resistance sensors offer the highest standard of accuracy and stability of any temperature sensor, providing good linear response covering a temperature range from – 200 degrees C to 650 degrees C.

The ITH Ltd range of mineral insulated RTD's are manufactured from superior grade materials and we provide technical support to ensure you get the appropriate sensor to meet exactly your needs.

### RTD Types

The following types of RTD are available:

**PT100** – Platinum, 100 ohm at 0 degrees C

**PT1000** – Platinum, 1000 ohm at 0 degrees C

### Tolerances

RTD's are available as standard in tolerance classes A and B. Closer tolerance devices, commonly known as 1/3, 1/5 or 1/10 DIN.

### Sheaths and Conductors

RTDs are available in Simplex and Duplex form.

Standard sheath materials include 316 Stainless Steel, 321 Stainless Steel.

For higher temperature applications, a nickel sheath is preferred. Conductors are usually either copper or nickel.

### Probe Sheath Diameters Available

3mm, 4.5mm, 6mm, 8mm.

## END TERMINATIONS AVAILABLE

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### Primary Temporary Seal:

Epoxy resin seal

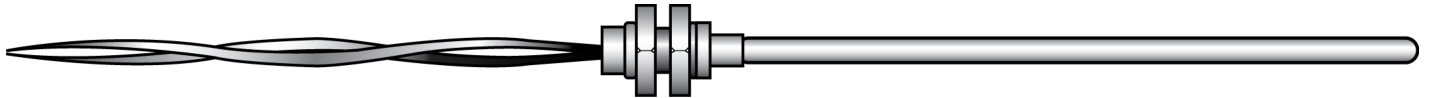
Maximum temperature 105°C



### Pot Seals:

**Plain:** Various diameter plain bodied pot seals to house the transition joints of the sensor to the appropriate extension tails.

**Threaded:** 8mm ISO x 1mm pitch threaded potting seals to house the transition joints of sensor to the appropriate extension tails. Maximum temperature up to 105°C



### Connectors:

Low cost high quality connectors which are colour coded to ANSI or IEC T/C types.

Available in two ranges - Standard and miniature

Glass polyamide body which give connectors a 220°C maximum temperature rating and high impact resistance.



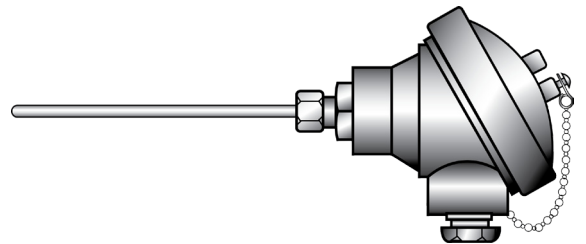
### DIN Transmitter Plate / Ceramic Blocks:

A wide range of DIN Spring loaded terminal blocks and plates are available to suit particular customer applications.



### Terminal Heads:

A wide range of Aluminium, Stainless Steel and Plastic terminal heads are available with a Rating of up to IP 68



INDUSTRIAL TEMPERATURE SENSORS & HEATING ELEMENTS LTD  
Units 12 & 13, Prince Consort Road Industrial Estate, Hebburn, Tyne and Wear, NE31 1EH

[www.ithltd.co.uk](http://www.ithltd.co.uk)