

RTD



- It employs high purity electrical resistance wire , non-inductively wound on ceramic or glass base.
- When RTD element is subjected to heat, it changes its electrical resistance value, corresponding to variation in temperature and its thermal coefficient (α)
- The temperature resistance characteristic have an established pattern for different resistance elements, like Copper, Nickel, Platinum etc.
- Most commonly used resistance element is Platinum known as Pt 100 (100 Ω at 0°C)
- Temperature resistance characteristic conform to DIN 43760/IEC 751 / BSS 1904 / JIS C1604 standards.
- Conventional thermocouple or RTD elements pass through multi bore insulators, encased in outer protection sheath and connected to temperature measuring instruments.

Mineral Insulated Elements

Mineral insulated (MI) sensors are insulated with tightly compacted high purity magnesium oxide powder, simplex or duplex, enclosed in various metal sheath and connected to temperature measuring instrument.

Hot junction is form in inert gas atmosphere and tested for leakage with Nitrogen gas under pressure.

- Simplex or Duplex assemblies.
- Vibration Proof, Fast Response, High Insulation Resistance, Accurate and Stable.
- Sheaths can be bent, twisted and flattened to sit application.
- Length can be form few inches to several meters.
 - i) T/C type: K, T, J, E, N with sheath diameters from 1mm to 19mm
 - ii) T/C Sheath Material: SS 304, 316, 310, 321, 446, Inconel 600, Incolloy 800/825.
 - iii)T/C Junctions can be Grounded or Insulated (Un-Grounded).
- RTD Type: PT 100 simplex or duplex, two or three wire system.

SHEATH DIAMETER (mm)		Simplex	Duplex	Insulation Resistance (MIN). M Ω @ Room Temp.	Termination	RTD Dimensions
T/C	RTD					
1, 1.5, 2	-	YES	NO	10 at 500 V DC	PSFL, MFC, HEAD, JB	
3	-	YES	YES	100 at 500 V DC	PSFL, MFC, HEAD, JB	
6	6	YES	YES	100 at 500 V DC	PSFL, MFC, HEAD, JB	6x60mm bulb with 5mm OD SS316 MI cable extension
8		YES	YES	100 at 500 V DC	PSFL, MFC, HEAD, JB	6x60mm bulb with 5mm OD SS316 MI cable extension
12.7	12.7	YES	YES	100 at 500 V DC	PSFL, HEAD	