

Platinum Resistance Thermometer Sensors (RTD)

The Platinum Resistance Thermometer Sensor (RTD) is a temperature sensor containing a resistive temperature sensitive element. The resistance of the element changes with the temperature. For measuring within a range of -50 to 400 Deg C, platinum sensors are the most commonly used RTD sensors. Sensor elements made of platinum are normally produced for 100 OHM at 0 Deg C, described as PT100.

RTDs are amongst the most precise temperature sensors available. The resistance temperature detector senses heat, based on the principle that change in temperature results in a corresponding change in the resistance of the wire. The hotter the wires become, the larger and higher the value of their electrical resistance.



Special Features

Compliance to IEC-60751

Temperature range -50 to + 400 Deg C

High insulation resistance (>100 m OHM @ 500 VDC at 250 Deg C)

Mineral insulated construction customised to suit the installation without affecting performance

Available in a variety of sheath materials and diameters

Spring loaded design for positive contact with thermowell

Suitable for head mounted transmitters

Industrial Applications

Chemical and fertiliser industries

Petrochemical industry

Thermal, nuclear and hydroelectric power stations

Pharmaceutical industry

Food processing industry

Water treatment plants

Iron and steel industry

Rubber moulding / processing plants

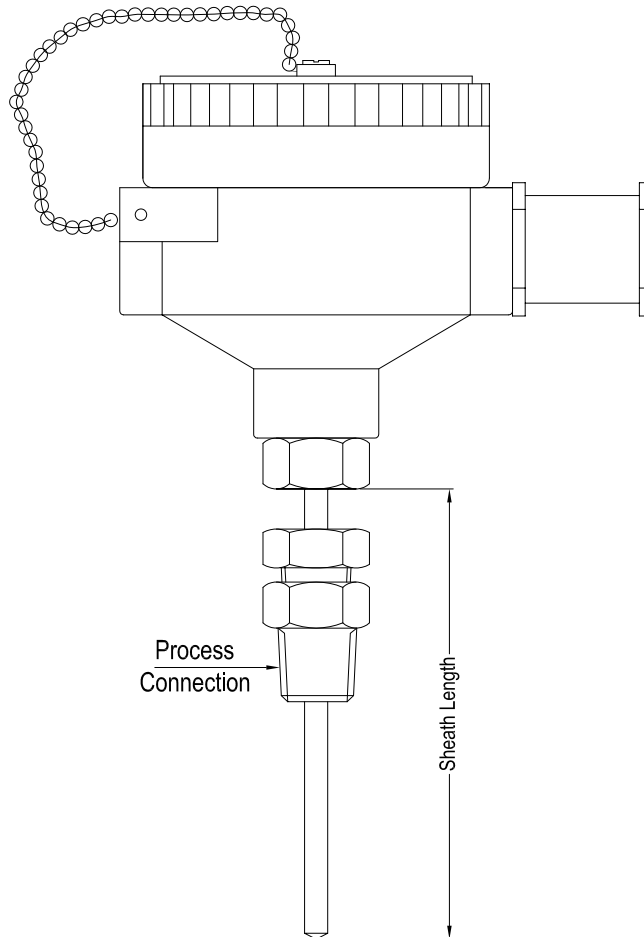
Sugar industry

Refineries

Standard Product Specifications

Specifications	Description
Reference standard	IEC-60751
Model	Simplex
Element	1 x PT 100, film type
Wire configuration	3- wire
Connection	1/2" NPT(M)
Sheath material	SS 316
Sheath type	Mineral insulated
Sheath diameter	6 mm
Sheath length	200 mm
Accuracy	Class A as per IEC -60751
Terminal head	Screwed type die cast aluminium weatherproof – IP 65
Head extension type	Adjustable connection
Cable gland	3/4" ET single compression gland
Cable gland material of construction	Brass nickle plated with rubber
Nominal resistance	100 OHM at 0 Deg. C
Ambient temperature	-25°C to 65°C
Temperature range	-50 to +400°C

MI Cable RTD Assembly



Ordering Information

Configuration Generation code

Model		**	*	*	*	*	*	*
Resistance temperature detector(duplex)	RD							
Resistance temperature detector(simpex)	RS							
Element								
Pt100, film type	1							
Wire Configuration								
3 wire	3							
4 wire	4							
Head Extension Type								
Adjustable connection	A							
Nipple connection	B							
Nipple union connection	D							
Fixed connection (standard)	F							
Flanged connection	E							
Connection Size								
M18 X 1P	0							
M20 X 1.5P	1							
1/4"	A							
3/8"	B							
1/2"	C							
3/4"	D							
Not required	N							
Connection type								
NPT(M)	A							
BSP(M)	B							
BSPT(M)	C							
Metric thread(M)	M							
#150-RF	4							
#300-RF	5							
Without connection	N							
Cable Gland								
1/2" NPT, Double compression(1 No)	A							
3/4" ET Double compression(1 No)	C							
3/4" ET, Single compression(1 No) (standard)	D							
1/2" NPT, Double compression(2 No)	E							
3/4" ET, Double compression(2 No)	G							
3/4" ET, Single compression(2 No)	H							

Sheath Diameter								
6 mm (standard)								
8 mm								
10 mm								
Sheath Length								
As per requirement								
Sheath Material of Construction								
SS 316 (standard)								
Inconel 600								
Inconel 625								
SS 321								
SS 446								
Head Extension Material of Construction								
SS 316 (standard)								
Carbon Steel								
SS 304								
SS 316L								
Monel 400								
Cable Gland Material of Construction								
Brass nickle plated with rubber								
Optional Features								
Accuracy class B as per IEC 60751								
Head protection	IP 67 protected head							
	Ex. proof GR II C							
	Flame proof GR II A, II B							
Lead wire extension	PTFE braided							
	SS braided							
Lead wire length	1 mtr to 15 mtrs							
Flange type	Blind							
	Slip on							
	Weld neck							
Flange finish	125 AARH							
	63 AARH							
	250 AARH							
Tests and Certificates								
Five point calibration certificate								
Material test certificate								
Third party inspection								
Special requirements – please specify								

Ordering example: RS13FNND-XXXX (with standard selection)



Forbes Marshall
Krohne Marshall
Forbes Marshall Arca
Codel International
Forbes Solar
Forbes Vyncke
Forbes Marshall Steam Systems

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