

RTD14 is resistance temperature detector with fixed Hex fitting Immersion RTD are ideal for applications where the metallic probe tip is inserted directly into drilled holes (such as machine components) or the process, especially when dealing with non-aggressive media or low abrasion environments.

Key Features

- Available in type Pt100, Pt100(0.00392), Pt200, Pt1000, Ni120 ohm .
- Available in Class B, Class A, Class AA, 1/10 DIN B(IEC 60751& ASTM E1137)
- Single and Duplex Sensor elements.
- Range -196 to 600°C (-320 ... +1,112 °F)
- A wide selection of sheath materials to suit application requirements 316 SS, Inconel 600.
- Sheath diameter is available from 1/8" to 0.375"(3.2mm to 10.00mm).
- Mineral Insulated and Tube and wire design for low-temperature application.
- High Vibration resistance and ultra-temperature option available
- Single ended & Double Hex Fitting in both NPT and BSP Thread

Technical Specification

Insulation Resistance : 100 MG Ohms @ 250 vdc

Response Time : <5 Sec in circulating water @ 1ft/sec

Accuracy : As per IEC60751 (See tolerance chart)

Self Heating Error: < 0.30°F (0.17°C)

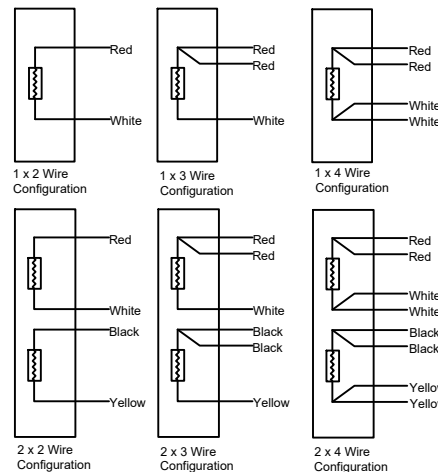
Time Constant : < 5 sec

RTD Wire Configuration

2 Wire: In 2 wire RTDs, one lead wire is connected to each wire of the RTD element. 2 Wire RTDs are an economical option for the applications where high accuracy is not required. Since there is no compensation wire, the accuracy of RTD can be affected if long lead wire is used.

3 Wire : 3 wire RTDs are the most common type of RTDs used in the industry. In 3 three-wire Rtd 1 wire is connected to the one side of the RTD element, and on the other side, 2 wires are connected to compensate for the resistance. With compensating wire, accuracy is very close to the element accuracy at the termination end.

4 wire: 4 wire RTDs are highly accurate. In 4 wire RTDs 2 wires are connected to each side of the RTD element. With additional wire on each side of the RTD element, the output at the termination is highly accurate. 4 wire RTDs are recommended where high accuracy and long lead wire is required.



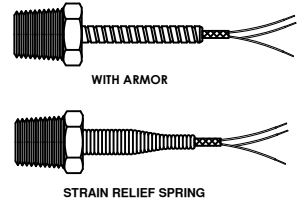
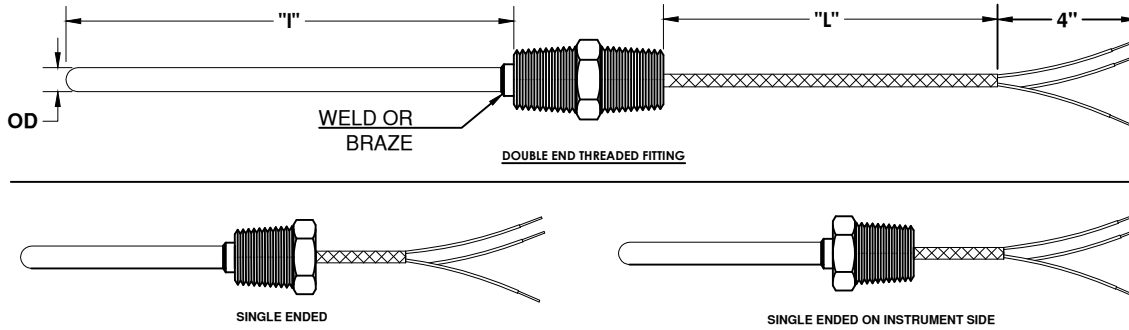
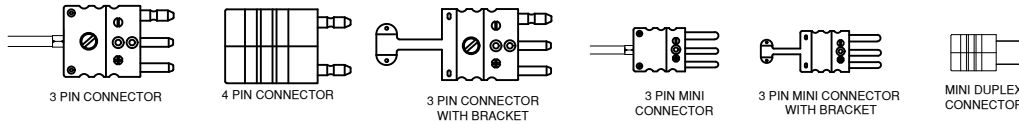
RTD Type Available

Element Type	Pt100	Pt200	Pt1000	Ni120
Wire Wound	X	X		
Thin Film	X		X	X
Alpha Value	IEC 0.00385 JIS 0.00391	IEC 0.00385 JIS 0.00391	IEC 0.00385	0.00672

Our RTD class offerings and Tolerance as per IEC60751 (pt100)

Tolerance Class	Temperature Range °C		Tolerance	Tolerance
	Wire Wound	Thin Film	Values Ω	values °C
AA	-50 TO +250	0 TO +150	±0.04	± (0.1 + 0.0017 t)
A	-100 TO +450	-30 TO +300	±0.06	± (0.15 + 0.002 t)
B	-196 TO +600	-50 TO +500	±0.12	± (0.3 + 0.005 t)
C	-196 TO +600	-50 TO +600	±0.23	± (0.6 + 0.01 t)
a t = modulus of temperature in °C without regard to sign				
For 1/10 DIN B RTD is not standardize. The only accuracy defined is 1/10 of Class B accuracy at 0°C = 0.03°C				

Temperature	Class B±	Class A±	Class AA± (1/3 DIN B)	Class 1/10 DIN B±
-50° C	0.55	0.25	0.19	0.060
0° C	0.30	0.15	0.10	0.030
100° C	0.80	0.35	0.27	0.070
200° C	1.30	0.55	0.44	0.120
250° C	1.55	0.65	0.53	0.160
300° C	1.80	0.75	0.61	0.220
350° C	2.05	0.85	0.70	-
400° C	2.30	0.95	0.78	-
450° C	2.55	1.05	0.87	-
500° C	2.80	1.15	0.95	-
550° C	3.05	1.25	1.04	-
600° C	3.30	1.35	1.12	-
650° C	3.55	1.45	1.21	-

**Termination options-**

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
RTD14															

For Example- RTD14-01-A-S-04-LT-4-8-12i-120i-02S8N-3X-Z-0-0-0

1. RTD TYPE	
CODE	
01	Pt100 Ohm, 0.00385, Coefficient
02	Pt100 Ohm, 0.00392, Coefficient
03	Pt200 Ohm, 0.00385, Coefficient
04	Pt1000 Ohm, 0.00385 Coefficient
05	Ni120 Ohm, 0.00672 Curve Class B Only (Only Available in Low temp)

2. RTD ACCURACY	
CODE	
B	Class "B"
A	Class "A"
AA	Class "AA" (Available only for RTD type 01,02)
χ_{10}	Class χ_{10} DIN B (Available only for RTD type 01,02)

3. SENSOR ELEMENT	
CODE	
S	Single
D	Dual

4. WIRE CONFIGURATION	
CODE	
02	2 wire
03	3 wire
04	4 wire
06	Dual 6 wire
08	Dual 8 wire

5. TEMPERATURE RANGE	
CODE	
LT	-50°C to 250°C
MT	-50°C to 485°C
HT	-196°C to 600°C
UT	-196°C to 700°C

6. SHEATH OD		
CODE	IMPERIAL SIZE	METRIC SIZE
2	$\frac{1}{8}$ "	3.2 mm
3	$\frac{3}{16}$ "	4.76 mm
4	$\frac{1}{4}$ "	6.35 mm
5	$\frac{5}{16}$ "	7.9mm
6	$\frac{3}{8}$ "	9.5 mm
7	0.215"	5.46 mm
2M	0.079	3.0mm
3M	0.197"	5.0mm
4M	0.236"	6.0 mm
5M	0.315"	8.0mm
6M	0.354"	9.0 mm
7M	0.394"	10.0 mm

7. SHEATH MAT.	
CODE	
8	SS 316
3	INCONEL 600 (For High Temp RTD)

8. IMMERSION LENGTH (I)	
Immersion length - use "I" for inches and "M" for millimetre	

9. LEAD LENGTH (L)	
Lead length - use "I" for inches and "M" for millimetre	

10. PROCESS FITTING	
CODE	
10-1. STYLE	
01	Single ended
02	Double ended
03	Single ended on instrument side
10-2. MATERIAL	
S	Stainless Steel
M	Mild Steel

10. PROCESS FITTING	
10-3. SIZE	
2	$\frac{1}{8}$ "
4	$\frac{1}{4}$ "
6	$\frac{3}{8}$ "
8	$\frac{1}{2}$ "
18	M18 X 1.5
20	M20 X 1.5
10-4. THREAD TYPE	
N	NPT
B	BSP
Leave blank for metric thread	

11. WIRE TYPE	
CODE	
2	TEFLON (205° C)
6	TEFLON (260° C)
3	FIBRE GLASS (510° C)
NOTE:- Add "O" for no jacketing. Add "X" for SS braiding & "Z" for Armor	

12. CODES FOR TERMINATION	
CODE	
Z	Bare ends
TPP	3 Pin Standard Plug
MTPP	Miniature 3 Pin Plug
FPP	4 Pin Standard Plug
RM	M12 Round Connector Male

CONTINUE ON NEXT PAGE

13. CODES FOR TERMINATION (JACK)	
CODE	
0	Not required
TPJ	3 Pin Standard Jack
MTPJ	Miniature 3 Pin Jack
FPJ	4 Pin Standard Jack
RF	M12 Round Connector Female

14. OPTIONAL ACCESSORY	
CODE	
0	Not required
02	Strain relief spring (Only for lead wire without Armour)

15. OPTIONAL ACCESSORY	
CODE	
0	Not required
WC	Wire clamp
BT	Silicon rubber boot for connector
Only choose when ordering with connector	