

RTD62- Tempotech RTD 62 Pipe Mount Surface RTD (Resistance Temperature Detector) is a temperature sensor specifically designed to measure the surface temperature of pipes without direct immersion in the process fluid. This type of RTD ensures accurate and responsive temperature monitoring while being easy to install and maintain. It features a flat or curved sensing element that securely mounts to the pipe's outer surface using straps, clamps, or adhesive-backed pads. The sensor is often housed in a durable stainless steel or aluminum enclosure with an armored cable or flexible lead wires for mechanical protection. Some models include thermal compound to improve heat transfer and enhance measurement accuracy.

Key Features

- Non-Intrusive Installation eliminates the need to drill or penetrate the pipe, maintaining system integrity.
- Used in applications where direct probe immersion is not feasible.
- Flexible mounting options include strap-on, clamp-on or adhesive-mounted for different pipe sizes and materials.
- Available with spring-loaded or magnet-mounted designs for temporary or permanent installation.
- Optimized contact design improves thermal transfer, ensuring quick and accurate temperature readings.
- Available with Pt100 or Pt1000 elements per IEC 60751 standard in Class A or Class B accuracy ratings. 7. Available in 2-wire, 3-wire, or 4-wire configurations for enhanced accuracy and reduced lead wire resistance errors. .

Technical Specification

Insulation Resistance : 100 MG Ohms @ 250 vdc

Response Time : <5 Sec in circulating water @ 3ft/sec

Accuracy : As per IEC60751 (See tolerance chart)

Self Heating Error: < 0.30°F (0.17°C)

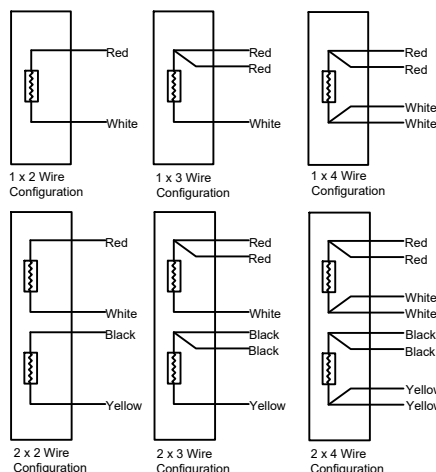
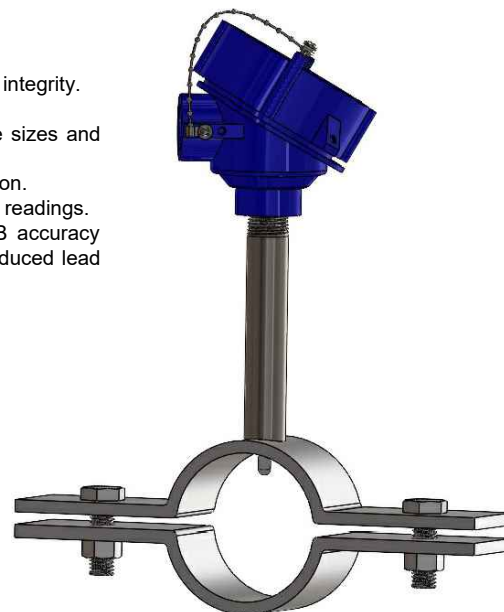
Time Constant : < 5 sec

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)

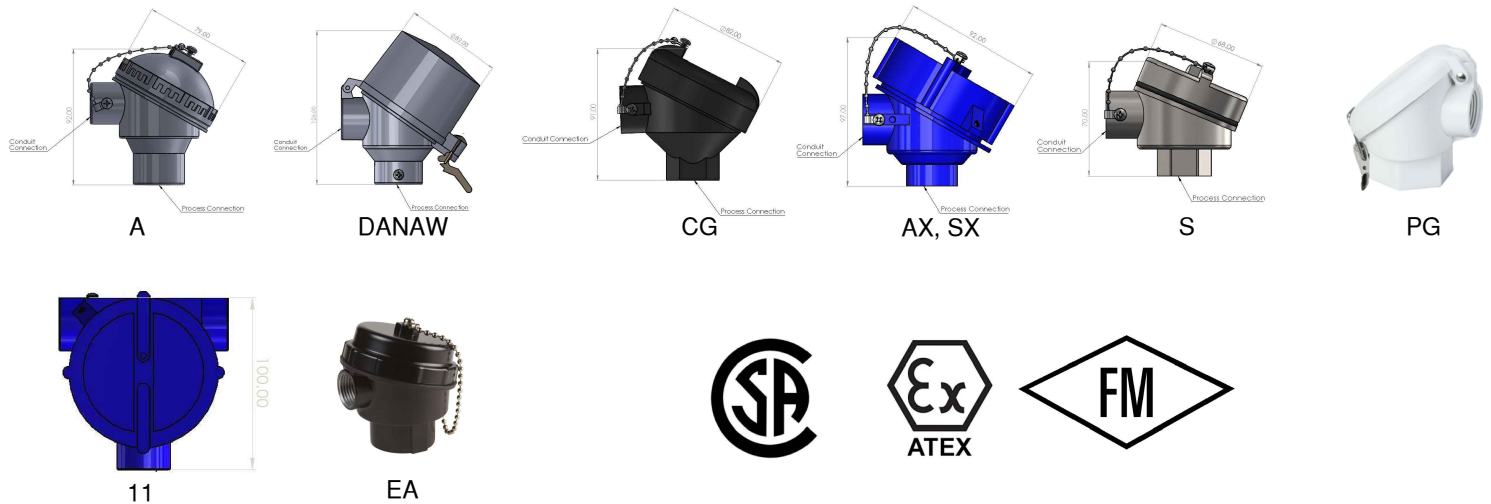
a | t | = modulus of temperature in °C without regard to sign

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

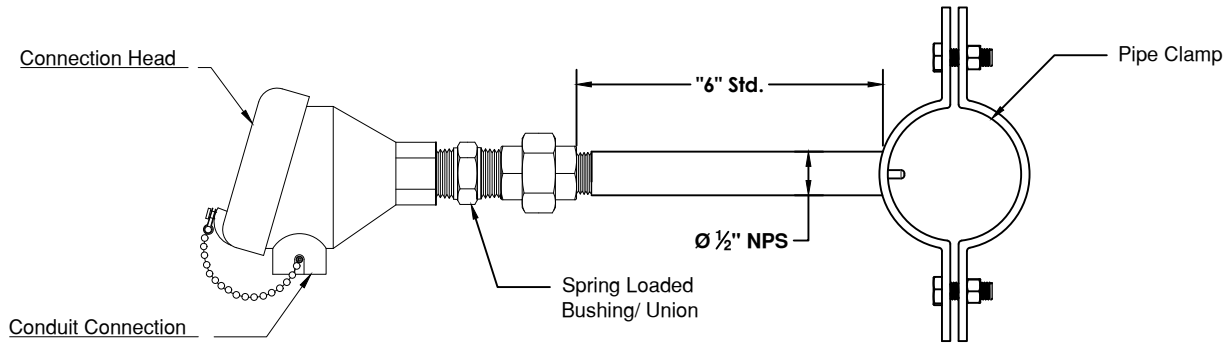
Temperature	Class B±	Class A±	Class AA± (1/3 DIN B)	Class 1/10 DIN B±
-50° C	0.55	0.25	0.19	0.060
0° C	0.30	0.15	0.10	0.030
100° C	0.80	0.35	0.27	0.070
200° C	1.30	0.55	0.44	0.120
250° C	1.55	0.65	0.53	0.160
300° C	1.80	0.75	0.61	0.220
350° C	2.05	0.85	0.70	-
400° C	2.30	0.95	0.78	-
450° C	2.55	1.05	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	-

Common Applications

- Used in chemical, petrochemical, and oil & gas industries for monitoring pipeline temperatures.
- Measures pipe surface temperature in hot water, steam and chiller systems for efficiency control in HVAC and energy management.
- Measures surface temperatures of boiler tubes, condensate return lines and fuel pipelines in power generation & refining.
- Protects exposed pipes and valves from freezing conditions in water & water treatment plants.
- Used in pipeline heating systems to maintain flow and prevent wax or hydrate formation in Oil & Gas industry.

Connection Heads**Transmitters and Displays**

Model	TT-167	TT-267	TT-367	TT-467	TT-567
Transmitter					
Output					
4-20 mA	X	X			
HART® Protocol		X			
Input					
Thermocouple	K,J,R,S,T,N,E,B, Pt100, Pt1000	K,J,R,S,T,N,E,B, Pt100, Pt1000	K,J,R,S,T,N,E,B, Pt100, Pt1000	K,J,R,S,T,N,E,B, Pt100, Pt1000	K,J,R,S,T,N,E,B, Pt100, Pt1000
Approval					
Electrical		CE, CSA	CE, CSA	CE, CSA	CE, CSA
HazLoc		OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL
Integral Display			X	X	X
Field Programmable		X	X	X	X



	1	2	3	4	5	6	7	8	9	10	11	12
RTD62												

For Example- RTD62-01-A-S-04-LT-4-8-P2-9-AX-07-TB

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)
1/10	Class 1/10 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, Thin Film
MT	-50°C to 485°C, Thin Film
HT	-196°C to 600°C, Wire Wound
UT	-196°C to 700°C, Wire Wound

6. SHEATH OD		
CODE	IMPERIAL SIZE	METRIC SIZE
4	1/4"	6.35 mm

7. SHEATH MAT.	
CODE	
8	SS 316/316L

8. PIPE CLAMP SIZE	
CODE	
P2	For 2" pipe
P4	For 4" pipe
P6	For 6" pipe

9. PIPE MATERIAL	
CODE	
8	SS 316
9	SS 304
10	Carbon steel

10. CONNECTION HEAD	
CODE	
A	Gen purpose Aluminum head IP68
EA	Economical Aluminum gen purpose head(non-rated)
S	SS general purpose
CG	Cast iron
PG	Polypropylene
SX	SS Explosion proof
AX	Aluminum explosion proof (CSA,FM,ATEX,IECE'x approved)
06	"Fieldmount Temp Transmitter w/ Display Aluminum"
07	"Fieldmount Temp Transmitter w/ Display SS"

10. CONNECTION HEAD	
CODE	
06X	"Exd Fieldmount Temp Transmitter w/ Display Aluminum"
07X	"Exd Fieldmount Temp Transmitter w/ Display SS"
09	General Purpose Transmitter w/ Loop Powered Indicator
10	Aluminum connection head (CCOE approved)
DA	Dual entry gen purpose Aluminum head
D-XD	Dual entry Aluminum explosion proof (CSA,FM,ATEX,IECE'x approved)

11. Conduit Conn.	
CODE	
05	1/2" NPT
07	3/4" NPT
2M	M20 x 1.5

12. HEAD TERMINATION	
CODE	
00	Blank Head Ready to Install Transmitter
TB	Ceramic Terminal Block
TRM	Standard 4-20 mA Transmitter
TRM-H	Standard 4-20 mA Transmitter w/ Hart