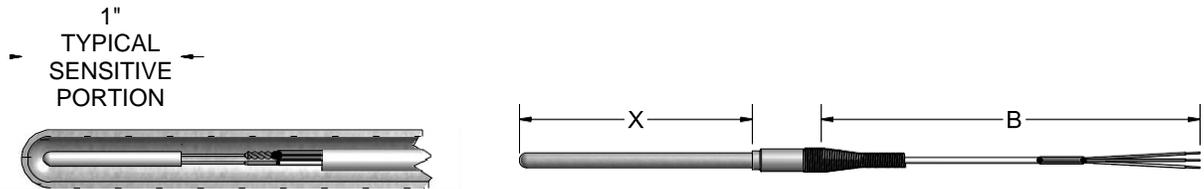


RTD

Configuration Code RT01 RTD Assemblies with Extension Leadwire Configuration Code RT02 RTD Assemblies with Sheath Terminations

The RTD elements illustrated and described on this page are designed to measure temperature in a variety of process and laboratory applications. These RTDs are specifically designed for use in two different process temperature ranges and will provide accurate and repeatable temperature measurement through a broad range. Low range RTDs are constructed using fluoropolymer-insulated, silver-plated copper internal leads with potting compounds to resist moisture penetration. High range RTDs are constructed with nickel internal leads inside swaged MgO insulated cable to allow higher temperature measurements at the RTD element and provide higher temperature lead protection along the sheath. The following tables allow customer selection of standard element materials, tolerances, sheath diameters, mounting fittings and terminations. Custom-built assemblies with non-standard specifications are available upon request.



ORDER CODES

Example Order Number:

1-1 **R5T185L** 1-2(A) **48** 1-3 **3** - 1-4 **006** - Page RTD-2 - Page RTD-3 - Page RTD-4 - Page RTD-5

1-1 Single Platinum RTD Elements

1-2 Available Sheath Diameters 316SS

CODE	TOLERANCE ^[1]	BASE RESISTANCE @ 0 °C (R ₀)	TEMPERATURE COEFFICIENT	CODE			
<i>LOW RANGE WIRE WOUND (-200 to 200) °C [-328 to 392] °F</i>				<i>1/8" O.D.</i>	<i>3/16" O.D.</i>	<i>1/4" O.D.</i>	<i>3/8" O.D.</i>
R1T185L	Grade B	100 Ω	α = 0.003 85 °C ⁻¹	28	38	48	68
R3T185L	Class AA	100 Ω	α = 0.003 85 °C ⁻¹	28	38	48	68
R5T185L	(1/5) Class B	100 Ω	α = 0.003 85 °C ⁻¹	28	38	48	68
R1T192L	Grade B	100 Ω	α = 0.003 92 °C ⁻¹	28	38	48	68
R3T192L	Class AA	100 Ω	α = 0.003 92 °C ⁻¹	28	38	48	68
<i>LOW RANGE THIN FILM (-50 to 200) °C [-58 to 392] °F</i>							
RBF185L	Class B	100 Ω	α = 0.003 85 °C ⁻¹	28	38	48	68
RAF185L	Class A	100 Ω	α = 0.003 85 °C ⁻¹	28	38	48	68
RBF195L	Class B	1000 Ω	α = 0.003 85 °C ⁻¹	28	38	48	68
<i>HIGH RANGE WIRE WOUND (-200 to 600) °C [-328 to 1112] °F</i>							
R1T185H	Grade B	100 Ω	α = 0.003 85 °C ⁻¹	28	38	48	68
RAT185H	Class A	100 Ω	α = 0.003 85 °C ⁻¹	28	38	48	68
R1T192H	Grade B	100 Ω	α = 0.003 92 °C ⁻¹	28	38	48	68

[1] Refer to RTD tolerance information in the general information section for calculations to determine specific tolerance at temperature.

1-1 Duplex Platinum RTD Elements

1-2 Available Sheath Diameters 316SS

CODE	TOLERANCE ^[1]	BASE RESISTANCE @ 0 °C (R ₀)	TEMPERATURE COEFFICIENT	CODE		
<i>LOW RANGE WIRE WOUND (-200 to 200) °C [-328 to 392] °F</i>				<i>3/16" O.D.</i>	<i>1/4" O.D.</i>	<i>3/8" O.D.</i>
		100 Ω	α = 0.003 85 °C ⁻¹	38	48	68
		100 Ω	α = 0.003 85 °C ⁻¹	38	48	68
		100 Ω	α = 0.003 85 °C ⁻¹	38	48	68
R1T292L	Grade B	100 Ω	α = 0.003 92 °C ⁻¹	38	48	68
R3T292L	Class AA	100 Ω	α = 0.003 92 °C ⁻¹	38	48	68
<i>LOW RANGE THIN FILM (-50 to 200) °C [-58 to 392] °F</i>						
RBF285L	Class B	100 Ω	α = 0.003 85 °C ⁻¹	38	48	68
RAF285L	Class A	100 Ω	α = 0.003 85 °C ⁻¹	38	48	68
RBF295L	Class B	1000 Ω	α = 0.003 85 °C ⁻¹	38	48	68
<i>HIGH RANGE WIRE WOUND (-200 to 600) °C [-328 to 1112] °F</i>						
R1T285H	Class B	100 Ω	α = 0.003 85 °C ⁻¹	38	48	68
RAT285H	Class A	100 Ω	α = 0.003 85 °C ⁻¹	38	48	68
R1T292H	Grade B	100 Ω	α = 0.003 92 °C ⁻¹	38	48	68

[1] Refer to RTD tolerance information in the general information section for calculations to determine specific tolerance at temperature.

1-4 Length

CODE
3 Digit "X" Length

1-3 Element Connection

CODE	DESCRIPTION
2	2-wire
3	3-wire
4 ^[1]	4-wire

[1] Not available in duplex

1-2A

CODE	NOMINAL SHEATH DIAMETER (inches)	TIP DIA. O.D. (inches)	TIP LENGTH (inches)
88R48	1/2	1/4	1 1/4
68R38	3/8	3/16	1 1/4
48R28	1/4	1/8	1 1/4

REDUCED-TIP RTD's

Table 1-2A lists RTD elements with reduced tip sheaths. To order, use order code numbers from Tbl. 1-2A in place of straight sheath order code numbers from Tbl. 1-2. Other reduced tips are available upon request. EXAMPLE: R1T185L**88R483**-006.

