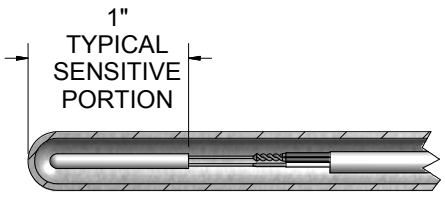
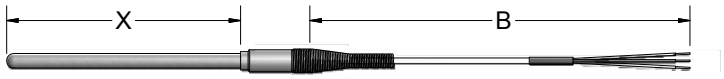
RTD

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	1-2(A)	1-3		1-4								
R5T185L	**48**	**3**	**-**	**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]	TEMP. RANGE	BASE RESISTANCE @ 0 ºC (R_0)	TEMPERATURE COEFFICIENT	CODE			
					1/8" O.D.	*3/16" O.D.*	*1/4" O.D.*	*3/8" O.D.*
R1T185L	Grade B	(-200 to 200) °C	100 Ω	α = 0.003 85 ºC^{-1}	28	38	48	68
R3T185L	Class AA	(-50 to 200) °C	100 Ω	α = 0.003 85 ºC^{-1}	28	38	48	68
R5T185L	(1/5) Class B	(-30 to 150) °C	100 Ω	α = 0.003 85 ºC^{-1}	28	38	48	68
R1T192L	Grade B	(-200 to 200) °C	100 Ω	α = 0.003 92 ºC^{-1}	28	38	48	68
R3T192L	Class AA	(-50 to 200) °C	100 Ω	α = 0.003 92 ºC^{-1}	28	38	48	68
RBF185L	Class B	(-50 to 200) °C	100 Ω	α = 0.003 85 ºC^{-1}	28	38	48	68
RAF185L	Class A	(-30 to 200) °C	100 Ω	α = 0.003 85 ºC^{-1}	28	38	48	68
RBF195L	Class B	(-50 to 200) °C	1000 Ω	α = 0.003 85 ºC^{-1}	28	38	48	68
R1T185H	Grade B	(-200 to 600) °C	100 Ω	α = 0.003 85 ºC^{-1}	28	38	48	68
RAT185H	Class A	(-100 to 450) °C	100 Ω	α = 0.003 85 ºC^{-1}	28	38	48	68
R1T192H	Grade B	(-200 to 600) °C	100 Ω	α = 0.003 92 ºC^{-1}	28	38	48	68

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

1-4 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 or longer than 48" in L28 construction

1-1 Duplex Platinum RTD Elements

1-2 Available Sheath Diameters 316SS

CODE	TOLERANCE[1]	TEMP. RANGE	BASE RESISTANCE @ 0 ºC (R_0)	TEMPERATURE COEFFICIENT	CODE		
					3/16" O.D.	*1/4" O.D.*	*3/8" O.D.*
R1T285L	Grade B	(-200 to 200) °C	100 Ω	α = 0.003 85 ºC^{-1}	38	48	68
R3T285L	Class AA	(-50 to 200) °C	100 Ω	α = 0.003 85 ºC^{-1}	38	48	68
R5T285L	(1/5) Class B	(-30 to 150) °C	100 Ω	α = 0.003 85 ºC^{-1}	38	48	68
R1T292L	Grade B	(-200 to 200) °C	100 Ω	α = 0.003 92 ºC^{-1}	38	48	68
R3T292L	Class AA	(-50 to 200) °C	100 Ω	α = 0.003 92 ºC^{-1}	38	48	68
RBF285L	Class B	(-50 to 200) °C	100 Ω	α = 0.003 85 ºC^{-1}	38	48	68
RAF285L	Class A	(-30 to 200) °C	100 Ω	α = 0.003 85 ºC^{-1}	38	48	68
RBF295L	Class B	(-50 to 200) °C	1000 Ω	α = 0.003 85 ºC^{-1}	38	48	68
R1T285H	Grade B	(-200 to 600) °C	100 Ω	α = 0.003 85 ºC^{-1}	38	48	68
RAT285H	Class A	(-100 to 450) °C	100 Ω	α = 0.003 85 ºC^{-1}	38	48	68
R1T292H	Grade B	(-200 to 600) °C	100 Ω	α = 0.003 92 ºC^{-1}	38	48	68

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

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.