

STANDARD PLATINUM RTD ASSEMBLIES - Pyromation standard RTD assemblies are constructed using platinum elements with a reference resistance of 100 ohms at 0 °C, a temperature coefficient 0.003 85 °C⁻¹ and which are in accordance with the following standards:

1. International Standard, IEC 60751 2. American Standard, ASTM E1137

TEMPERATURE		IEC CLASS B ^[1] (RBF) $\pm (0.12\% \times R_0) \Omega$		ASTM GRADE B ^[1] (R1T) $\pm (0.1\% \times R_0) \Omega$		IEC CLASS A ^[1] (RAT) $\pm (0.06\% \times R_0) \Omega$		IEC CLASS A ^[1] (RAF) $\pm (0.06\% \times R_0) \Omega$		IEC CLASS AA ^[1] (R3T) $\pm (0.04\% \times R_0) \Omega$		(1/5) IEC CLASS B ^[2] (R5T) $\pm (0.02\% \times R_0) \Omega$	
		$\pm (0.3 + 0.005 t) ^\circ\text{C}$		$\pm (0.25 + 0.0042 t) ^\circ\text{C}$		$\pm (0.15 + 0.002 t) ^\circ\text{C}$		$\pm (0.15 + 0.002 t) ^\circ\text{C}$		$\pm (0.1 + 0.0017 t) ^\circ\text{C}$		$\pm (0.06 + 0.001 t) ^\circ\text{C}$	
		°C	[°F]	°C	[°F]	°C	[°F]	°C	[°F]	°C	[°F]	°C	[°F]
-200	[-328]			1.09	[1.96]								
-100	[-148]			0.67	[1.21]	0.35	[0.63]						
-50	[-58]	0.55	[0.99]	0.46	[0.83]	0.25	[0.45]			0.19	[0.34]		
-30	[-22]	0.45	[0.77]	0.38	[0.64]	0.21	[0.36]	0.21	[0.36]	0.15	[0.26]	0.09	[0.16]
0	[32]	0.30	[0.54]	0.25	[0.45]	0.15	[0.27]	0.15	[0.27]	0.10	[0.18]	0.06	[0.11]
100	[212]	0.80	[1.44]	0.67	[1.21]	0.35	[0.63]	0.35	[0.63]	0.27	[0.49]	0.16	[0.29]
150	[302]	1.05	[1.89]	0.88	[1.58]	0.45	[0.81]	0.45	[0.81]	0.36	[0.65]	0.21	[0.38]
200	[392]	1.30	[2.34]	1.09	[1.96]	0.55	[0.99]	0.55	[0.99]	0.44	[0.79]		
250	[482]	1.55	[2.79]	1.30	[2.34]	0.65	[1.17]	0.65	[1.17]	0.53	[0.95]		
300	[572]	1.80	[3.24]	1.51	[2.72]	0.75	[1.35]	0.75	[1.35]				
400	[752]	2.30	[4.14]	1.93	[3.47]	0.95	[1.71]						
450	[842]	2.55	[4.59]	2.14	[3.85]	1.05	[1.89]						
500	[932]	2.80	[5.04]	2.35	[4.23]								
600	[1112]			2.77	[4.99]								

Where: |t| = value of temperature without regard to sign, °C

[1] The equations represent values for 3- and 4-wire PRTs. Caution must be exercised with 2-wire PRTs due to lead resistance.

[2] This tolerance can only be met with a 4-wire PRT. If a 3-wire construction is specified, the guaranteed tolerance will be upgraded to the highest possible accuracy based on the temperature range as listed in the above table.

