

RESISTANCE vs. RTD TEMPERATURE SPECIFICATIONS

Temperature (°C) vs. Resistance (Ω)

°C	0	-10	-20	-30	-40	-50	-60	-70	-80	-90	/C°
-200	18.52										
-100	60.26	56.19	52.11	48.00	43.88	39.72	35.54	31.34	27.10	22.83	.415
0	100.00	99.09	92.16	88.22	84.27	80.31	76.33	72.33	68.33	64.30	.357
°C	0	10	20	30	40	50	60	70	80	90	/C°
0	100.00	103.90	107.79	111.67	115.54	119.40	123.24	127.08	130.90	134.71	.385
100	138.51	142.29	146.07	149.83	153.58	157.33	161.05	164.77	168.48	172.17	.374
200	175.86	179.53	183.19	186.84	190.47	194.10	197.71	201.31	204.90	208.48	.361
300	212.05	215.61	219.15	222.68	226.21	229.72	233.21	236.70	240.18	243.64	.350
400	247.09	250.53	253.96	257.38	260.78	264.18	267.56	270.93	274.29	277.64	.339
500	280.98	284.30	287.62	290.92	294.21	297.49	300.75	304.01	307.25	310.49	.327
600	313.71	316.92	320.12	323.30	326.48	329.64	332.79	335.93	339.06	342.18	.316
700	345.28	348.38	351.46	354.53	357.59	360.64	363.67	366.70	369.71	372.71	.304
800	375.70	378.68	381.65	384.60	387.55	390.48					

JMS Type B (Industry standard)

Temperature (°C)	-250	-220	-200	-100	0	100	200	300	400	500	600	700	800	850
Tolerance (±°C)	1.6	1.4	1.3	0.8	0.3	0.8	1.3	1.8	2.3	2.8	3.3	3.8	4.3	4.6
(± Ω)	1.0	0.7	0.6	0.3	0.1	0.3	0.5	0.6	0.8	0.9	1.1	1.3	1.4	1.5

Temperature (°F) vs. Resistance (Ω)

°F	0	-10	-20	-30	-40	-50	-60	-70	-80	-90	/F°
-200	48.49										
-100	71.01	68.78	66.55	64.31	62.07	59.82	57.57	55.31	53.04	50.77	.225
0	93.03	90.85	88.66	86.47	84.27	82.07	79.87	77.66	75.45	73.23	.220
°F	0	10	20	30	40	50	60	70	80	90	/F°
0	93.03	95.21	97.39	99.56	101.73	103.90	106.06	108.22	110.37	112.53	.216
100	114.67	116.82	118.96	121.10	123.23	125.36	127.49	129.61	131.73	133.85	.213
200	135.96	138.07	140.18	142.28	144.38	146.48	148.57	150.66	152.74	154.82	.209
300	156.90	158.97	161.04	163.11	165.17	167.23	169.29	171.34	173.39	175.44	.206
400	177.48	179.52	181.56	183.59	185.61	187.64	189.66	191.68	193.69	195.70	.202
500	197.71	199.71	201.71	203.71	205.70	207.69	209.68	211.66	213.64	215.61	.199
600	217.58	219.55	221.51	223.47	225.43	227.39	229.34	231.68	233.23	235.17	.195
700	237.10	239.03	240.96	242.89	244.81	246.73	248.64	250.55	252.46	254.37	.192
800	256.27	258.16	260.06	261.95	263.83	265.72	267.60	269.47	271.34	273.21	.188
900	275.08	276.94	278.80	280.65	282.50	284.35	286.19	288.03	289.87	291.70	.185
1000	293.53	295.36	297.18	299.00	300.82	302.63	304.44	306.24	308.04	309.84	.181
1100	311.64	313.43	315.22	317.00	318.78	320.56	322.33	324.10	325.86	327.63	.177
1200	329.30	331.03	332.79	334.76	336.74	338.71	340.69	342.66	344.64	346.62	.169
1300	347.50	348.38	350.07	351.77	353.46	355.16	356.85	358.55	360.25	361.94	.162
1400	363.67	365.17	366.67	368.17	369.67	371.17	372.67	374.18	375.68	377.12	.150
1500	378.68	380.58	382.48	384.38	386.30	388.21	390.12				

JMS Type B (Industry standard)

Temperature (°F)	-200	-100	0	32	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1560
Tolerance (±°F)	1.8	1.1	0.7	0.6	0.7	0.9	1.5	2.0	2.7	3.3	3.9	4.5	5.4	6.0	6.5	7.0	7.6	8.4	9.0	9.4
(± Ω)		0.3	0.2	0.1	0.2	0.2	0.3	0.4	0.6	0.7	0.8	.09	1.0	1.1	1.1	1.2	1.3	1.4	1.5	1.5

Nominal Resistance

The platinum element of the standard industrial type RTD has a base reference resistance of 100 Ω at 0°C.

Platinum 100 Ω, temperature coefficient = 0.00385/Ω/°C.

This meets the ASTM standard 1137 and also meets the IEC 751. All readings based on ITS 90 - International Temperature Scale 1990.