

## Technical Reference

TR\_RTD\_Tab\_2102\_EN

## RTDs

### Reference Table for RTDs (Pt100, Pt500, Pt1000)



## Overview

The following table shows the relationship between temperature and resistance for a 100  $\Omega$  nominal resistance detector. For other nominal resistances  $R_0$ , such as 500  $\Omega$  and 1000  $\Omega$ , the table can be used by multiplying the value found in the table by a factor  $R_0 / 100 \Omega$ .



## Reference Table

°C	Resistance [ $\Omega$ ]									
	0	-1	-2	-3	-4	-5	-6	-7	-8	-9
200	18.49									
-190	22.80	22.37	21.94	21.51	21.08	20.65	20.22	19.79	19.36	18.93
-180	27.08	26.65	26.23	25.80	25.37	24.94	24.52	24.09	23.66	23.23
-170	31.32	30.90	30.47	30.05	29.63	29.20	28.78	28.35	27.93	27.50
-160	35.53	35.11	34.69	34.27	33.85	33.43	33.01	32.59	32.16	31.74
-150	39.71	39.30	38.88	38.46	38.04	37.63	37.21	36.79	36.37	35.95
-140	43.87	43.45	43.04	42.63	42.21	41.79	41.38	40.96	40.55	40.13
-130	48.00	47.59	47.18	46.76	46.35	45.94	45.52	45.11	44.70	44.28
-120	52.11	51.70	51.29	50.88	50.47	50.06	49.64	49.23	48.82	48.41
-110	56.19	55.78	55.38	54.97	54.56	54.15	53.74	53.33	52.92	52.52
-100	60.25	59.85	59.44	59.04	58.63	58.22	57.82	57.41	57.00	56.60
-90	64.30	63.90	63.49	63.09	62.68	62.28	61.87	61.47	61.06	60.66
-80	68.33	67.92	67.52	67.12	66.72	66.31	65.91	65.51	65.11	64.70
-70	72.33	71.93	71.53	71.13	70.73	70.33	69.93	69.53	69.13	68.73
-60	76.33	75.93	75.53	75.13	74.73	74.33	73.93	73.53	73.13	72.73
-50	80.31	79.91	79.51	79.11	78.72	78.32	77.92	77.52	77.13	76.73
-40	84.27	83.88	83.48	83.08	82.69	82.29	81.89	81.50	81.10	80.70
-30	88.22	87.83	87.43	87.04	86.64	86.25	85.85	85.46	85.06	84.67
-20	92.16	91.77	91.37	90.98	90.59	90.19	89.80	89.40	89.01	88.62
-10	96.09	95.69	95.30	94.91	94.52	94.12	93.73	93.34	92.95	92.55
0	100.00	99.61	99.22	98.83	98.44	98.04	97.65	97.26	96.87	96.48







(continues)

°C	Resistance [Ω]									
	0	1	2	3	4	5	6	7	8	9
0	100.00	100.39	100.78	101.17	101.56	101.95	102.34	102.73	103.12	103.51
10	103.90	104.29	104.68	105.07	105.46	105.85	106.24	106.63	107.02	107.40
20	107.79	108.18	108.57	108.96	109.35	109.73	110.12	110.51	110.90	111.28
30	111.67	112.06	112.45	112.83	113.22	113.61	113.99	114.38	114.77	115.15
40	115.54	115.93	116.31	116.70	117.08	117.47	117.85	118.24	118.62	119.01
50	119.40	119.78	120.16	120.55	120.93	121.32	121.70	122.09	122.47	122.86
60	123.24	123.62	124.01	124.39	124.77	125.16	125.54	125.92	126.31	126.69
70	127.07	127.45	127.84	128.22	128.60	128.98	129.37	129.75	130.13	130.51
80	130.89	131.27	131.66	132.04	132.42	132.80	133.18	133.56	133.94	134.32
90	134.70	135.08	135.46	135.84	136.22	136.60	136.98	137.36	137.74	138.12
100	138.50	138.88	139.26	139.64	140.02	140.39	140.77	141.15	141.53	141.91
110	142.29	142.66	143.04	143.42	143.80	144.17	144.55	144.93	145.31	145.68
120	146.06	146.44	146.81	147.19	147.57	147.94	148.32	148.70	149.07	149.45
130	149.82	150.20	150.57	150.95	151.33	151.70	152.08	152.45	152.83	153.20
140	153.58	153.95	154.32	154.70	155.07	155.45	155.82	156.19	156.57	156.94
150	157.31	157.69	158.06	158.43	158.81	159.18	159.55	159.93	160.30	160.67
160	161.04	161.42	161.79	162.16	162.53	162.90	163.27	163.65	164.02	164.39
170	164.76	165.13	165.50	165.87	166.24	166.61	166.98	167.35	167.72	168.09
180	168.46	168.83	169.20	169.57	169.94	170.31	170.68	171.05	171.42	171.79
190	172.16	172.53	172.90	173.26	173.63	174.00	174.37	174.74	175.10	175.47
200	175.84	176.21	176.57	176.94	177.31	177.68	178.04	178.41	178.78	179.14
210	179.51	179.88	180.24	180.61	180.97	181.34	181.71	182.07	182.44	182.80
220	183.17	183.53	183.90	184.26	184.63	184.99	185.36	185.72	186.09	186.45
230	186.82	187.18	187.54	187.91	188.27	188.63	189.00	189.36	189.72	190.09
240	190.45	190.81	191.18	191.54	191.90	192.26	192.63	192.99	193.35	193.71
250	194.07	194.44	194.80	195.16	195.52	195.88	196.24	196.60	196.96	197.33
260	197.69	198.05	198.41	198.77	199.13	199.49	199.85	200.21	200.57	200.93
270	201.29	201.65	202.01	202.36	202.72	203.08	203.44	203.80	204.16	204.52
280	204.88	205.23	205.59	205.95	206.31	206.67	207.02	207.38	207.74	208.10
290	208.45	208.81	209.17	209.52	209.88	210.24	210.59	210.95	211.31	211.66
300	212.02	212.37	212.73	213.09	213.44	213.80	214.15	214.51	214.86	215.22
310	215.57	215.93	216.28	216.64	216.99	217.35	217.70	218.05	218.41	218.76
320	219.12	219.47	219.82	220.18	220.53	220.88	221.24	221.59	221.94	222.29
330	222.65	223.00	223.35	223.70	224.06	224.41	224.76	225.11	225.46	225.81
340	226.17	226.52	226.87	227.22	227.57	227.92	228.27	228.62	228.97	229.32
350	229.67	230.02	230.37	230.72	231.07	231.42	231.77	232.12	232.47	232.82
360	233.17	233.52	233.87	234.22	234.56	234.91	235.26	235.61	235.96	236.31
370	236.65	237.00	237.35	237.70	238.04	238.39	238.74	239.09	239.43	239.78
380	240.13	240.47	240.82	241.17	241.51	241.86	242.20	242.55	242.90	243.24
390	243.59	243.93	244.28	244.62	244.97	245.31	245.66	246.00	246.35	246.69
400	247.04	247.38	247.73	248.07	248.41	248.76	249.10	249.45	249.79	250.13
410	250.48	250.82	251.16	251.50	251.85	252.19	252.53	252.88	253.22	253.56
420	253.90	254.24	254.59	254.93	255.27	255.61	255.95	256.29	256.63	256.98
430	257.32	257.66	258.00	258.34	258.68	259.02	259.36	259.70	260.04	260.38
440	260.72	261.06	261.40	261.74	262.08	262.42	262.76	263.10	263.43	263.77
450	264.11	264.45	264.79	265.13	265.47	265.80	266.14	266.48	266.82	267.15
460	267.49	267.83	268.17	268.50	268.84	269.18	269.51	269.85	270.19	270.52
470	270.86	271.20	271.53	271.87	272.20	272.54	272.88	273.21	273.55	273.88
480	274.22	274.55	274.89	275.22	275.56	275.89	276.23	276.56	276.89	277.23
490	277.56	277.90	278.23	278.56	278.90	279.23	279.56	279.90	280.23	280.56


(continues)


°C	Resistance [Ω]									
	0	1	2	3	4	5	6	7	8	9
500	280.90	281.23	281.56	281.89	282.23	282.56	282.89	283.22	283.55	283.89
510	284.22	284.55	284.88	285.21	285.54	285.87	286.21	286.54	286.87	287.20
520	287.53	287.86	288.19	288.52	288.85	289.18	289.51	289.84	290.17	290.50
530	290.83	291.16	291.49	291.81	292.14	292.47	292.80	293.13	293.46	293.79
540	294.11	294.44	294.77	295.10	295.43	295.75	296.08	296.41	296.74	297.06
550	297.39	297.72	298.04	298.37	298.70	299.02	299.35	299.68	300.00	300.33
560	300.65	300.98	301.31	301.63	301.96	302.28	302.61	302.93	303.26	303.58
570	303.91	304.23	304.56	304.88	305.20	305.53	305.85	306.18	306.50	306.82
580	307.15	307.47	307.79	308.12	308.44	308.76	309.09	309.41	309.73	310.05
590	310.38	310.70	311.02	311.34	311.66	311.99	312.31	312.63	312.95	313.27
600	313.59	313.92	314.24	314.56	314.88	315.20	315.52	315.84	316.16	316.48
610	316.80	317.12	317.44	317.76	318.08	318.40	318.72	319.04	319.36	319.68
620	319.99	320.31	320.63	320.95	321.27	321.59	321.91	322.22	322.54	322.86
630	323.18	323.49	323.81	324.13	324.45	324.76	325.08	325.40	325.71	326.03
640	326.35	326.66	326.98	327.30	327.61	327.93	328.25	328.56	328.88	329.19
650	329.51	329.82	330.14	330.45	330.77	331.08	331.40	331.71	332.03	332.34
660	332.66	332.97	333.28	333.60	333.91	334.23	334.54	334.85	335.17	335.48
670	335.79	336.11	336.42	336.73	337.04	337.36	337.67	337.98	338.29	338.60
680	338.92	339.23	339.54	339.85	340.16	340.47	340.79	341.10	341.41	341.72
690	342.03	342.34	342.65	342.96	343.27	343.58	343.89	344.20	344.51	344.82
700	345.13	345.44	345.75	346.06	346.37	346.68	346.99	347.30	347.60	347.91
710	348.22	348.53	348.84	349.15	349.45	349.76	350.07	350.38	350.69	350.99
720	351.30	351.61	351.91	352.22	352.53	352.83	353.14	353.45	353.75	354.06
730	354.37	354.67	354.98	355.28	355.59	355.90	356.20	356.51	356.81	357.12
740	357.42	357.73	358.03	358.34	358.64	358.94	359.25	359.55	359.86	360.16
750	360.47	360.77	361.07	361.38	361.68	361.98	362.29	362.59	362.89	363.19
760	363.50	363.80	364.10	364.40	364.71	365.01	365.31	365.61	365.91	366.22
770	366.52	366.82	367.12	367.42	367.72	368.02	368.32	368.62	368.93	369.23
780	369.53	369.83	370.13	370.43	370.73	371.03	371.33	371.63	371.92	372.22
790	372.52	372.82	373.12	373.42	373.72	374.02	374.32	374.61	374.91	375.21
800	375.51	375.81	376.10	376.40	376.70	377.00	377.29	377.59	377.89	378.19
810	378.48	378.78	379.08	379.37	379.67	379.97	380.26	380.56	380.85	381.15
820	381.44	381.74	382.04	382.33	382.63	382.92	383.22	383.51	383.81	384.10
830	384.40	384.69	384.98	385.28	385.57	385.87	386.16	386.45	386.75	387.04
840	387.33	387.63	387.92	388.21	388.51	388.80	389.09	389.39	389.68	389.97
850	390.26									

	Contato
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