



# MATERIAL TYPE: G

## AVAILABLE PRODUCTS:

HM, C100, EC95, DC95, MC65, MF65, SC30, SC50

Data for material type : G

Temp Range (°C)	Ratio	Beta
0 to 50	10.48	4147
0 to 70	22.65	4178
25 to 50	2.97	4201
25 to 85	10.91	4252
25 to 100	17.80	4271
25 to 125	37.37	4298
37.8 to 104.4	11.46	4299

Temperature (°C)	Rt/R25 nominal	Temp Coef (%/°C)	β Deviation† (±%)
-50	85.73	7.50%	3.48%
-45	59.31	7.25%	3.27%
-40	41.54	7.01%	3.03%
-35	29.43	6.78%	2.77%
-30	21.09	6.56%	2.50%
-25	15.28	6.35%	2.23%
-20	11.18	6.15%	1.96%
-15	8.261	5.96%	1.70%
-10	6.162	5.77%	1.44%
-5	4.639	5.60%	1.19
0	3.522	5.43%	0.95%
5	2.697	5.26%	0.73%
10	2.081	5.11%	0.53%
15	1.618	4.96%	0.34%
20	1.268	4.82%	0.16%
25	1.000	4.68%	0.00%
30	0.7942	4.55%	0.14%
35	0.6348	4.42%	0.26%
40	0.5106	4.30%	0.37%
45	0.4131	4.18%	0.46%
50	0.3362	4.07%	0.54%
55	0.2751	3.96%	0.60%
60	0.2263	3.86%	0.65%
65	0.1871	3.75%	0.68%
70	0.1555	3.66%	0.70%
75	0.1298	3.56%	0.71%
80	0.1089	3.48%	0.71%
85	0.09170	3.39%	0.69%
90	0.07757	3.31%	0.66%
95	0.06589	3.23%	0.62%
100	0.05619	3.15%	0.57%
105	0.04810	3.07%	0.50
110	0.04133	3.00%	0.41%
115	0.03563	2.92%	0.36%
120	0.03083	2.87%	0.26%
125	0.02676	2.80%	0.15%
130	0.02330	2.73%	0.09%
135	0.02036	2.68%	0.05%
140	0.01784	2.61%	0.17%
145	0.01567	2.55%	0.26%
150	0.01381	2.50%	0.43%

To calculate Rt/R25 at temperatures other than those listed in the table, use the following equation:

$$Rt/R25 = \exp\{A + B/T + C/T^2 + D/T^3\}$$

where T = temperature in K

where K = °C + 273.15

Temp Range (°C)	A	B	C	D
-50 to 0	-1.5617550E+01	5.0690086E+03	-9.6895494E+04	-7.7906095E+06
0 to 50	-1.5573783E+01	5.0310600E+03	-8.5956133E+04	-8.8392667E+06
50 to 100	-1.5358271E+01	4.7986321E+03	-3.1012401E+03	-1.8614924E+07
100 to 150	-1.8012530E+01	7.9402031E+03	-1.2428041E+06	1.4445457E+08

To calculate the actual thermistor temperature as a function of the thermistor resistance, use the following equation:

$$1/T = a + b(\ln Rt/R25) + c(\ln Rt/R25)^2 + d(\ln Rt/R25)^3$$

Rt/R25 range	a	b	c	d
85.730 to 3.5223	3.3537950E-03	2.4096581E-04	2.2453225E-06	1.1817106E-07
3.5223 to 0.33620	3.3540142E-03	2.4060636E-04	2.4402986E-06	8.0075806E-08
0.33620 to 0.05619	3.3541651E-03	2.4087966E-04	2.5742490E-06	8.8745970E-08
0.05619 to 0.01381	3.3357228E-03	2.2502940E-04	-1.9459544E-06	-3.4181652E-07

†The deviation resulting from the tolerance on the material constant, Beta. The deviation must be added to the resistance tolerance of the part as specified at 25°C.