



# MATERIAL TYPE: GC2

## AVAILABLE PRODUCTS: GC32

Data for material type : A

Temp Range (°C)	Ratio	Beta
0 to 50	5.80	3103
0 to 70	10.31	3124
25 to 50	2.26	3146
25 to 85		#num
25 to 100	8.54	3182
25 to 125	14.71	3192
37.8 to 104.4	6.14	3197

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

Temp Range (°C)	A	B	C	D
0 to 50	-1.0002677E+01	2.2618145E+03	3.9046612E+05	-5.2371235E+07
50 to 100	-1.0018470E+01	2.2769273E+03	3.8569064E+05	-5.1873323E+07
100 to 150	-9.2460068E+00	1.3647156E+03	7.4460824E+05	-9.8921481E+07
150 to 200	-9.9508091E+00	2.1864826E+03	4.2612307E+05	-5.7896096E+07

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
2.5637 to 0.4421	3.3540142E-03	3.2116569E-04	4.5588151E-06	6.9704255E-07
0.4421 to 0.11707	3.3539551E-03	3.2094021E-04	4.2243164E-06	5.1596253E-07
0.11707 to 0.04209	3.3610052E-03	3.2911895E-04	7.3455937E-06	9.0795977E-07
0.04209 to 0.01882	3.3565718E-03	3.2303461E-04	4.7149540E-06	5.4432068E-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.

Temperature (°C)	Rt/R25 nominal	Temp Coef (%/°C)
0	2.5637	4.04%
5	2.1006	3.93%
10	1.7309	3.82%
15	1.4340	3.71%
20	1.1944	3.61%
25	1.000	3.50%
30	0.8414	3.40%
35	0.7115	3.31%
40	0.6044	3.22%
45	0.5158	3.13%
50	0.4421	3.04%
55	0.3806	2.96%
60	0.3290	2.87%
65	0.2855	2.80%
70	0.2487	2.72%
75	0.2175	2.65%
80	0.19086	2.58%
85	0.16808	2.51%
90	0.14852	2.44%
95	0.13165	2.38%
100	0.11707	2.31%
105	0.10442	2.26%
110	0.09341	2.20%
115	0.08380	2.15%
120	0.07538	2.09%
125	0.06798	2.04%
130	0.06147	1.99%
135	0.05572	1.94%
140	0.05063	1.90%
145	0.04611	1.84%
150	0.04209	1.81%
155	0.03850	1.75%
160	0.03529	1.71%
165	0.03241	1.68%
170	0.02983	1.64%
175	0.02750	1.60%
180	0.02541	1.57%
185	0.02351	1.53%
190	0.02180	1.49%
195	0.02024	1.46%
200	0.01882	1.43%