



MATERIAL TYPE: GCA

AVAILABLE PRODUCTS: GC32

Data for material type : F

Temp Range (°C)	Ratio	Beta
0 to 50	8.83	3844
0 to 70	17.95	3866
25 to 50	2.74	3883
25 to 85	9.04	3918
25 to 100	14.15	3930
25 to 125	27.82	3948
37.8 to 104.4	9.42	3949

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	-1.3833230E+01	4.2501345E+03	6.3699567E+03	-1.3078224E+07
50 to 100	-1.3719632E+01	4.1310576E+03	4.7757218E+04	-1.7851363E+07
100 to 150	-1.3844485E+01	4.2640808E+03	1.6755449E+02	-1.2128083E+07
150 to 200	-1.2031268E+01	1.8136023E+03	1.1026432E+06	-1.7725232E+08
200 to 250	-3.8834716E+01	4.1376603E+04	-1.8360198E+07	3.0137245E+09

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
3.2224 to 0.3651	3.3540164E-03	2.5963902E-04	2.1959915E-06	9.7373390E-08
0.3651 to 0.07069	3.3540678E-03	2.5974313E-04	2.2488876E-06	9.6198155E-08
0.07069 to 0.01971	3.3534015E-03	2.5907955E-04	2.0007093E-06	6.1335033E-08
0.01971 to 0.00711	3.4061455E-03	2.9467285E-04	9.9638018E-06	6.5192936E-07
0.00711 to 0.00309	1.7981970E-03	-6.2063248E-04	-1.6361114E-04	-1.0315635E-05

†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	3.2224	5.06%
5	2.5128	4.90%
10	1.9745	4.75%
15	1.5630	4.61%
20	1.2460	4.47%
25	1.0000	4.33%
30	0.8078	4.21%
35	0.6566	4.09%
40	0.5369	3.97%
45	0.4415	3.86%
50	0.3651	3.75%
55	0.3035	3.64%
60	0.2536	3.55%
65	0.2129	3.45%
70	0.17957	3.36%
75	0.15215	3.27%
80	0.12948	3.19%
85	0.11064	3.10%
90	0.09493	3.02%
95	0.08175	2.95%
100	0.07069	2.87%
105	0.06133	2.80%
110	0.05340	2.73%
115	0.04665	2.67%
120	0.04088	2.60%
125	0.03594	2.55%
130	0.03169	2.49%
135	0.02803	2.43%
140	0.02486	2.37%
145	0.02210	2.33%
150	0.01971	2.28%
155	0.01762	2.24%
160	0.01579	2.18%
165	0.01418	2.15%
170	0.01277	2.08%
175	0.01152	2.04%
180	0.01042	2.02%
185	0.00944	1.96%
190	0.00857	1.93%
195	0.00780	1.92%
200	0.00711	1.83%
205	0.00649	1.77%
210	0.00594	1.77%
215	0.00544	1.75%
220	0.00500	1.70%
225	0.00460	1.63%
230	0.00423	1.65%
235	0.00390	1.67%
240	0.00361	1.52%
245	0.00334	1.50%
250	0.00309	1.46%