



MATERIAL TYPE: GC3

AVAILABLE PRODUCTS: GC32

Data for material type : A

Temp Range (°C)	Ratio	Beta
0 to 50	7.24	3494
0 to 70	13.87	3522
25 to 50	2.51	3546
25 to 85	7.51	3588
25 to 100	11.33	3601
25 to 125	21.10	3620
37.8 to 104.4	7.83	3624

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	-1.2207744E+01	3.3437579E+03	2.1667458E+05	-3.8290811E+07
50 to 100	-1.1977372E+01	3.1050729E+03	2.9895994E+05	-4.7730431E+07
100 to 150	-1.1513677E+01	2.5226773E+03	5.4012165E+05	-8.0719257E+07
150 to 200	-1.5835957E+01	8.2073594E+03	-1.9551293E+06	2.8476095E+08
200 to 250	-2.5292509E+01	2.2843693E+04	-9.4622559E+06	1.5617899E+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
2.8833 to 0.3985	3.3540150E-03	2.8530773E-04	3.9383904E-06	3.6734699E-07
0.3985 to 0.08824	3.3541211E-03	2.8548790E-04	3.9611383E-06	3.1462189E-07
0.08824 to 0.02730	3.3589282E-03	2.9017072E-04	5.3841029E-06	4.4215354E-07
0.02730 to 0.01073	3.2431160E-03	2.0232491E-04	-1.6902412E-05	-1.4523799E-06
0.01073 to 0.00503	2.4075296E-03	-2.9734651E-04	-1.1563684E-04	-7.8872818E-06

†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	2.8833	4.55%
5	2.3047	4.42%
10	1.8538	4.29%
15	1.5002	4.17%
20	1.2213	4.06%
25	1.0000	3.94%
30	0.8233	3.84%
35	0.6815	3.73%
40	0.5671	3.63%
45	0.4742	3.53%
50	0.3985	3.43%
55	0.3364	3.34%
60	0.2853	3.25%
65	0.2430	3.17%
70	0.2078	3.08%
75	0.17850	3.00%
80	0.15391	2.93%
85	0.13320	2.85%
90	0.11571	2.78%
95	0.10087	2.71%
100	0.08824	2.64%
105	0.07744	2.58%
110	0.06818	2.52%
115	0.06022	2.45%
120	0.05334	2.39%
125	0.04739	2.34%
130	0.04222	2.29%
135	0.03771	2.24%
140	0.03377	2.18%
145	0.03033	2.13%
150	0.02730	2.07%
155	0.02463	2.05%
160	0.02227	2.00%
165	0.02018	1.93%
170	0.01833	1.91%
175	0.01669	1.86%
180	0.01522	1.84%
185	0.01391	1.80%
190	0.01273	1.77%
195	0.01168	1.71%
200	0.01073	1.68%
205	0.00988	1.62%
210	0.00911	1.65%
215	0.00841	1.61%
220	0.00778	1.54%
225	0.00721	1.53%
230	0.00669	1.49%
235	0.00622	1.45%
240	0.00579	1.47%
245	0.00539	1.39%
250	0.00503	1.39%