



MATERIAL TYPE: GC8

AVAILABLE PRODUCTS: GC32

Data for material type : D

Temp Range (°C)	Ratio	Beta
0 to 50	12.26	4424
0 to 70	28.18	4471
25 to 50	3.22	4505
25 to 85	13.11	4580
25 to 100	22.34	4608
25 to 125	50.18	4648
37.8 to 104.4	14.02	4650

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	-1.7230206E+01	5.6565194E+03	-1.0125171E+05	-1.5977209E+07
50 to 100	-1.7177771E+01	5.5993733E+03	-8.0740498E+04	-1.8407244E+07
100 to 150	-1.7992874E+01	6.5466303E+03	-4.4797395E+05	2.9080253E+07
150 to 200	-9.7777277E-01	-1.6072143E+04	9.5732999E+06	-1.4505923E+09
200 to 250	-1.4179005E+01	1.3323768E+03	1.9377447E+06	-3.3585322E+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
3.8085 to 0.3107	3.3540159E-03	2.2532012E-04	3.0064820E-06	1.2267409E-07
0.3107 to 0.04477	3.3539950E-03	2.2526330E-04	2.9353296E-06	9.0517601E-08
0.04477 to 0.00966	3.3494345E-03	2.2141644E-04	1.8447446E-06	-1.3998762E-08
0.00966 to 0.00280	3.6830592E-03	4.1574372E-04	3.9512211E-05	2.4175138E-06
0.00280 to 0.00101	3.4416720E-03	2.7085782E-04	1.0709567E-05	5.2234708E-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	3.8085	5.73%
5	2.8716	5.57%
10	2.1819	5.42%
15	1.6703	5.27%
20	1.2879	5.13%
25	1.0000	5.00%
30	0.7817	4.86%
35	0.6150	4.74%
40	0.4869	4.61%
45	0.3878	4.50%
50	0.3107	4.38%
55	0.2503	4.27%
60	0.2028	4.16%
65	0.16512	4.06%
70	0.13514	3.96%
75	0.1115	3.86%
80	0.09185	3.77%
85	0.07625	3.68%
90	0.06358	3.59%
95	0.05324	3.50%
100	0.04477	3.43%
105	0.03779	3.35%
110	0.03203	3.28%
115	0.02725	3.19%
120	0.02326	3.14%
125	0.01993	3.06%
130	0.01713	2.98%
135	0.01478	2.94%
140	0.01279	2.85%
145	0.01110	2.79%
150	0.00966	2.74%
155	0.00844	2.73%
160	0.00739	2.57%
165	0.00648	2.62%
170	0.00571	2.54%
175	0.00504	2.48%
180	0.00446	2.47%
185	0.00395	2.40%
190	0.00351	2.27%
195	0.00313	2.40%
200	0.00280	2.14%
205	0.00250	2.19%
210	0.00224	2.22%
215	0.00202	1.98%
220	0.00182	2.20%
225	0.00164	2.13%
230	0.00148	2.03%
235	0.00134	1.87%
240	0.00122	1.64%
245	0.00111	1.80%
250	0.00101	1.98%