



MATERIAL TYPE: 2

AVAILABLE PRODUCTS: DK, NK

Data for material type : 2

Temp Range (°C)	Ratio	Beta
0 to 50	7.08	3455
0 to 70	13.45	3480
25 to 50	2.48	3499
25 to 85	7.31	3540
25 to 100	10.99	3555
25 to 125	20.36	3578
37.8 to 104.4	7.61	3578

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

$$\ln(Rt/R25) = A + B / T + C / T^2 + D / T^3$$

where T = temperature in K

Temp Range (°C)	A	B	C	D
-40 to 125	-1.3016325E+01	4.2452100E+03	-9.2520800E+04	-4.8070300E+06
125 to 300	-1.5528425E+01	7.4458500E+03	-1.4535400E+06	1.8832200E+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
0.002575 to 0.04911	3.3201780E-03	2.6017755E-04	-4.7773906E-06	-6.8688143E-07
0.04911 to 22.43	3.3539786E-03	2.8882034E-04	3.4321068E-06	1.1519565E-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)	β Deviation † (±%)
-40	22.43	-5.86	3.16
-35	16.81	-5.67	2.86
-30	12.73	-5.48	2.58
-25	9.719	-5.30	2.30
-20	7.487	-5.13	2.03
-15	5.816	-4.97	1.78
-10	4.554	-4.81	1.53
-5	3.593	-4.67	1.29
0	2.856	-4.52	1.05
5	2.286	-4.39	0.83
10	1.842	-4.26	0.61
15	1.493	-4.13	0.40
20	1.218	-4.01	0.20
25	1.0000	-3.89	0.00
30	0.8253	-3.78	0.19
35	0.6849	-3.68	0.38
40	0.5713	-3.58	0.56
45	0.4789	-3.48	0.74
50	0.4034	-3.38	0.91
55	0.3414	-3.29	1.08
60	0.2902	-3.21	1.24
65	0.2477	-3.12	1.41
70	0.2123	-3.04	1.56
75	0.1827	-2.97	1.71
80	0.1578	-2.89	1.86
85	0.1368	-2.82	2.01
90	0.1190	-2.75	2.15
95	0.1039	-2.68	2.29
100	0.09102	-2.62	2.43
105	0.07998	-2.56	2.56
110	0.07049	-2.50	2.69
115	0.06231	-2.44	2.81
120	0.05524	-2.38	2.94
125	0.04911	-2.33	3.06
130	0.04379	-2.28	3.18
135	0.03912	-2.23	3.29
140	0.03504	-2.18	3.41
145	0.03146	-2.13	3.52
150	0.02831	-2.08	3.63
155	0.02554	-2.04	3.74
160	0.02309	-2.00	3.84
165	0.02092	-1.96	3.94
170	0.01899	-1.92	4.04
175	0.01727	-1.88	4.14
180	0.01574	-1.84	4.24
185	0.01436	-1.81	4.33
190	0.01313	-1.77	4.43
195	0.01203	-1.74	4.52
200	0.01104	-1.71	4.61
205	0.01014	-1.68	4.70
210	0.009331	-1.65	4.79
215	0.008599	-1.62	4.87
220	0.007935	-1.59	4.96
225	0.007333	-1.57	5.04
230	0.006785	-1.54	5.12
235	0.006286	-1.52	5.20
240	0.005831	-1.49	5.28
245	0.005415	-1.47	5.36
250	0.005035	-1.44	5.43
255	0.004687	-1.42	5.51
260	0.004367	-1.40	5.58
265	0.004074	-1.38	5.66
270	0.003805	-1.36	5.73
275	0.003556	-1.34	5.80
280	0.003328	-1.32	5.87
285	0.003117	-1.30	5.94
290	0.002922	-1.28	6.01
295	0.002742	-1.26	6.08
300	0.002575	-1.25	6.14