



MATERIAL TYPE: H

AVAILABLE PRODUCTS:

HM, C100, EC95, DC95, MC65, MF65, SC30, SC50

Data for material type : H

Temp Range (°C)	Ratio	Beta
0 to 50	8.69	3816
0 to 70	17.75	3852
25 to 50	2.73	3877
25 to 85	9.13	3936
25 to 100	14.41	3958
25 to 125	28.81	3989
37.8 to 104.4	9.62	3990

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

where K = °C + 273.15

Temp Range (°C)	A	B	C	D
-50 to 0	-1.4877165E+01	4.9899384E+03	-1.4886502E+05	-4.8905610E+06
0 to 50	-1.4892875E+01	5.0042401E+03	-1.5318397E-05	-4.4577270E+06
50 to 100	-1.4680625E+01	4.7866806E+03	-7.8859743E+04	-1.2919163E+07
100 to 150	-1.6799636E+01	7.2755476E+03	-1.0536149E+06	1.1435743E+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
57.661 to 3.1765	3.3537282E-03	2.6186869E-04	3.2237070E-06	1.9199620E-07
3.1765 to 0.36565	3.3540145E-03	2.6135248E-04	3.5412623E-06	1.1814488E-07
0.36565 to 0.06940	3.3541139E-03	2.6152656E-04	3.6169780E-06	1.1867801E-07
0.06940 to 0.01867	3.3401179E-03	2.4828650E-04	-5.5159237E-07	-3.2074988E-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† (±%)
-50	57.66	6.76%	2.67%
-45	41.36	6.54%	2.43%
-40	29.98	6.34%	2.20%
-35	21.95	6.14%	1.98%
-30	16.23	5.95%	1.77%
-25	12.11	5.77%	1.57%
-20	9.114	5.60%	1.39%
-15	6.920	5.43%	1.21%
-10	5.297	5.27%	1.04%
-5	4.086	5.11%	0.87%
0	3.176	4.97%	0.71%
5	2.487	4.82%	0.56%
10	1.961	4.69%	0.41%
15	1.557	4.55%	0.27%
20	1.244	4.43%	0.13%
25	1.000	4.31%	0.00%
30	0.8088	4.19%	0.13%
35	0.6578	4.08%	0.26%
40	0.5381	3.97%	0.38%
45	0.4424	3.86%	0.50%
50	0.3657	3.76%	0.62%
55	0.3037	3.66%	0.74%
60	0.2534	3.57%	0.85%
65	0.2125	3.48%	0.96%
70	0.1789	3.40%	1.07%
75	0.1513	3.31%	1.18%
80	0.1285	3.23%	1.28%
85	0.1095	3.15%	1.39%
90	0.09373	3.08%	1.48%
95	0.08051	3.01%	1.58%
100	0.06940	2.94%	1.67%
105	0.06003	2.87%	1.77%
110	0.05210	2.80%	1.86%
115	0.04536	2.73%	1.96%
120	0.03962	2.68%	2.04%
125	0.03471	2.62%	2.13%
130	0.03049	2.56%	2.23%
135	0.02687	2.51%	2.31%
140	0.02374	2.46%	2.36%
145	0.02103	2.40%	2.47%
150	0.01867	2.36%	2.57%