

- High Sensitivity
- Glass encapsulated
- Temperature range  $-40^{\circ}\text{C}$  to  $250^{\circ}\text{C}$

The **ENTC-G1B-5k3976-1** has a hermetically sealed glass bead. It offers stability and reliability even at very high temperatures.

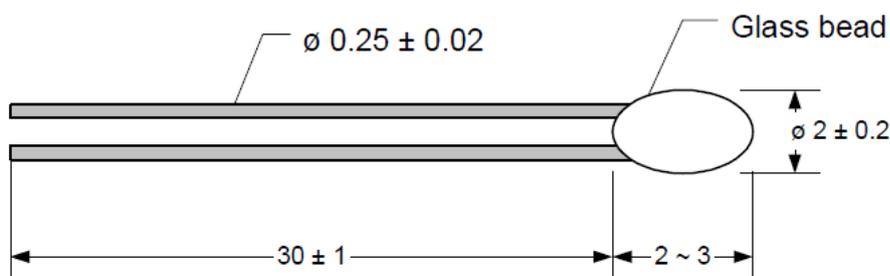
The thermistor can be used in a variety of applications such as heating and cooling systems and hot water boilers. It is well suited for humid environments and where thermal shocks can occur.



## Specifications

Element:	NTC Thermistor
Wire material	$\varnothing$ 0.25mm dumet wire (NiFe alloy w/copper coating)
Resistance at $+25^{\circ}\text{C}$	5000 $\Omega$
Resistance Tolerance at $+25^{\circ}\text{C}$	$\pm 1\%$
Beta Value 25/85 constant	3976K $\pm 1\%$
Dissipation factor (in still air)	1mW/ $^{\circ}\text{C}$
Thermal time constant (in still air)	$\sim 7$ sec
Operating temperature range	$-40^{\circ}\text{C}$ to $+250^{\circ}\text{C}$

## Dimensions in mm



## Ordering Information

Order code: ENTC-G1B-5k3976-1



## Resistance vs. temperature table for 5k3976-1

R(25) = 5000 Ohms

B(25/85) = 3976K ± 1%

Temp. (°C)	R <sub>min</sub> (KΩ)	R <sub>nor.</sub> (KΩ)	R <sub>max</sub> (KΩ)
-40	161.0259	168.4753	176.2517
-39	150.7106	157.5774	164.7406
-38	141.1257	147.4579	154.0588
-37	132.2149	138.0563	144.1413
-36	123.9264	129.317	134.9285
-35	116.2128	121.1891	126.3659
-34	109.0305	113.626	118.4034
-33	102.3397	106.585	110.9953
-32	96.1036	100.0267	104.0995
-31	90.2884	93.9149	97.6773
-30	84.8633	88.2166	91.6933
-29	79.7994	82.9011	86.1148
-28	75.0706	77.9404	80.9118
-27	70.6526	73.3086	76.0568
-26	66.5231	68.9819	71.5244
-25	62.6616	64.9384	67.2912
-24	59.049	61.1578	63.3356
-23	55.6676	57.6213	59.6377
-22	52.5013	54.3118	56.1791
-21	49.5352	51.2133	52.943
-20	46.7554	48.3111	49.9136
-19	44.149	45.5916	47.0766
-18	41.7044	43.0423	44.4187
-17	39.4102	40.6513	41.9273
-16	37.2566	38.4081	39.5912
-15	35.234	36.3025	37.3997
-14	33.3338	34.3254	35.343
-13	31.5477	32.4681	33.412
-12	29.8682	30.7227	31.5984
-11	28.2884	29.0817	29.8942
-10	26.8018	27.5384	28.2924
-9	25.4024	26.0864	26.7861
-8	24.0845	24.7197	25.3691
-7	22.843	23.4329	24.0357
-6	21.6728	22.2207	22.7802
-5	20.5697	21.0786	21.5979
-4	19.5292	20.0019	20.4839
-3	18.5477	18.9867	19.4342
-2	17.6213	18.029	18.4443
-1	16.7465	17.1252	17.5107
0	15.9204	16.2721	16.6299
1	15.1399	15.4665	15.7986
2	14.4022	14.7055	15.0136
3	13.7048	13.9864	14.2723
4	13.0452	13.3066	13.5719
5	12.4212	12.6638	12.9099
6	11.8307	12.0558	12.284
7	11.2715	11.4804	11.692

Temp. (°C)	R <sub>min</sub> (KΩ)	R <sub>nor.</sub> (KΩ)	R <sub>max</sub> (KΩ)
8	10.742	10.9358	11.1319
9	10.2405	10.4202	10.602
10	9.7653	9.9319	10.1003
11	9.3147	9.4691	9.6251
12	8.8876	9.0306	9.175
13	8.4825	8.6149	8.7485
14	8.098	8.2206	8.3442
15	7.7332	7.8466	7.9609
16	7.387	7.4918	7.5974
17	7.058	7.1549	7.2524
18	6.7456	6.8351	6.9251
19	6.4487	6.5313	6.6143
20	6.1667	6.2428	6.3192
21	5.8984	5.9685	6.0389
22	5.6433	5.7079	5.7726
23	5.4006	5.46	5.5195
24	5.1698	5.2243	5.2789
25	4.95	5	5.05
26	4.7367	4.7866	4.8366
27	4.5336	4.5834	4.6333
28	4.3404	4.39	4.4397
29	4.1565	4.2058	4.2552
30	3.9814	4.0303	4.0794
31	3.8145	3.863	3.9117
32	3.6557	3.7037	3.752
33	3.5042	3.5517	3.5995
34	3.3598	3.4068	3.4541
35	3.2221	3.2685	3.3152
36	3.0908	3.1366	3.1828
37	2.9656	3.0108	3.0564
38	2.8461	2.8906	2.9355
39	2.732	2.7759	2.8202
40	2.6231	2.6663	2.7099
41	2.5191	2.5616	2.6046
42	2.4198	2.4616	2.5039
43	2.3249	2.366	2.4076
44	2.2342	2.2746	2.3155
45	2.1475	2.1872	2.2274
46	2.0646	2.1036	2.1431
47	1.9854	2.0237	2.0625
48	1.9096	1.9472	1.9853
49	1.8371	1.874	1.9114
50	1.7677	1.8039	1.8406
51	1.7013	1.7368	1.7728
52	1.6377	1.6725	1.7078
53	1.5769	1.611	1.6456
54	1.5186	1.552	1.586
55	1.4627	1.4954	1.5287



## Resistance vs. temperature table for 5k3976-1 (cont.)

Temp. (°C)	R <sub>min</sub> (KΩ)	R <sub>nor.</sub> (KΩ)	R <sub>max</sub> (KΩ)
56	1.4092	1.4413	1.4739
57	1.3579	1.3893	1.4213
58	1.3088	1.3395	1.3708
59	1.2616	1.2917	1.3224
60	1.2164	1.2459	1.276
61	1.173	1.2019	1.2313
62	1.1314	1.1597	1.1885
63	1.0915	1.1192	1.1474
64	1.0532	1.0803	1.1079
65	1.0164	1.0429	1.07
66	0.9812	1.0071	1.0336
67	0.9472	0.9726	0.9985
68	0.9147	0.9395	0.9649
69	0.8834	0.9077	0.9326
70	0.8533	0.8771	0.9014
71	0.8244	0.8476	0.8714
72	0.7967	0.8194	0.8427
73	0.77	0.7922	0.815
74	0.7442	0.766	0.7883
75	0.7195	0.7408	0.7626
76	0.6958	0.7166	0.738
77	0.6729	0.6933	0.7142
78	0.6509	0.6708	0.6913
79	0.6297	0.6492	0.6692
80	0.6093	0.6284	0.648
81	0.5898	0.6084	0.6276
82	0.5709	0.5891	0.6079
83	0.5527	0.5705	0.5888
84	0.5352	0.5526	0.5706
85	0.5182	0.5353	0.5529
86	0.5019	0.5186	0.5358
87	0.4863	0.5026	0.5194
88	0.4711	0.4871	0.5036
89	0.4565	0.4721	0.4882
90	0.4424	0.4577	0.4735
91	0.4288	0.4438	0.4592
92	0.4158	0.4304	0.4455
93	0.4032	0.4175	0.4323
94	0.391	0.405	0.4195
95	0.3792	0.3929	0.4071
96	0.3679	0.3813	0.3952
97	0.357	0.3701	0.3837
98	0.3464	0.3592	0.3725
99	0.3361	0.3487	0.3617
100	0.3263	0.3386	0.3513
101	0.3168	0.3288	0.3413
102	0.3075	0.3193	0.3315
103	0.2987	0.3102	0.3221
104	0.29	0.3013	0.313

Temp. (°C)	R <sub>min</sub> (KΩ)	R <sub>nor.</sub> (KΩ)	R <sub>max</sub> (KΩ)
105	0.2818	0.2928	0.3042
106	0.2737	0.2845	0.2957
107	0.2659	0.2765	0.2875
108	0.2584	0.2688	0.2795
109	0.2512	0.2613	0.2718
110	0.2441	0.254	0.2643
111	0.2373	0.247	0.2571
112	0.2307	0.2402	0.2501
113	0.2244	0.2337	0.2434
114	0.2182	0.2273	0.2368
115	0.2123	0.2212	0.2305
116	0.2065	0.2152	0.2243
117	0.2008	0.2094	0.2183
118	0.1955	0.2039	0.2126
119	0.1902	0.1984	0.207
120	0.1851	0.1932	0.2016
121	0.1802	0.1881	0.1963
122	0.1755	0.1832	0.1913
123	0.1708	0.1784	0.1863
124	0.1664	0.1738	0.1815
125	0.162	0.1693	0.1769
126	0.1578	0.1649	0.1723
127	0.1537	0.1607	0.168
128	0.1498	0.1566	0.1637
129	0.1459	0.1526	0.1596
130	0.1422	0.1488	0.1557
131	0.1387	0.1451	0.1518
132	0.1351	0.1414	0.148
133	0.1317	0.1379	0.1444
134	0.1284	0.1345	0.1408
135	0.1252	0.1312	0.1374
136	0.1221	0.1279	0.134
137	0.1191	0.1248	0.1308
138	0.1162	0.1218	0.1277
139	0.1133	0.1188	0.1246
140	0.1106	0.116	0.1217
141	0.1079	0.1132	0.1187
142	0.1053	0.1105	0.1159
143	0.1028	0.1079	0.1132
144	0.1003	0.1053	0.1105
145	0.0979	0.1028	0.1079
146	0.0956	0.1004	0.1054
147	0.0934	0.0981	0.1031
148	0.0912	0.0958	0.1007
149	0.0891	0.0936	0.0984
150	0.0869	0.0914	0.0961
151	0.0849	0.0893	0.0939
152	0.083	0.0873	0.0918
153	0.0811	0.0853	0.0897



## Resistance vs. temperature table for 5k3976-1 (cont.)

Temp. (°C)	R <sub>min</sub> (KΩ)	R <sub>nor.</sub> (KΩ)	R <sub>max</sub> (KΩ)
154	0.0793	0.0834	0.0878
155	0.0774	0.0815	0.0858
156	0.0757	0.0797	0.0839
157	0.074	0.0779	0.082
158	0.0723	0.0762	0.0803
159	0.0707	0.0745	0.0785
160	0.0691	0.0728	0.0767
161	0.0676	0.0712	0.075
162	0.0661	0.0697	0.0735
163	0.0647	0.0682	0.0719
164	0.0632	0.0667	0.0703
165	0.0619	0.0653	0.0689
166	0.0606	0.0639	0.0674
167	0.0592	0.0625	0.066
168	0.058	0.0612	0.0646
169	0.0567	0.0599	0.0632
170	0.0555	0.0586	0.0619
171	0.0543	0.0574	0.0606
172	0.0532	0.0562	0.0594
173	0.052	0.055	0.0581
174	0.051	0.0539	0.057
175	0.0499	0.0528	0.0558
176	0.0489	0.0517	0.0547
177	0.0478	0.0506	0.0535
178	0.0469	0.0496	0.0525
179	0.0459	0.0486	0.0514
180	0.045	0.0476	0.0504
181	0.0441	0.0467	0.0494
182	0.0432	0.0457	0.0484
183	0.0423	0.0448	0.0474
184	0.0415	0.044	0.0466
185	0.0407	0.0431	0.0457
186	0.0398	0.0422	0.0447
187	0.0391	0.0414	0.0439
188	0.0383	0.0406	0.043
189	0.0375	0.0398	0.0422
190	0.0369	0.0391	0.0415
191	0.0361	0.0383	0.0406
192	0.0354	0.0376	0.0399
193	0.0348	0.0369	0.0391
194	0.0341	0.0362	0.0384
195	0.0334	0.0355	0.0377
196	0.0328	0.0348	0.0369
197	0.0322	0.0342	0.0363
198	0.0315	0.0335	0.0356
199	0.031	0.0329	0.0349
200	0.0304	0.0323	0.0343
201	0.0298	0.0317	0.0337
202	0.0294	0.0312	0.0332

Temp. (°C)	R <sub>min</sub> (KΩ)	R <sub>nor.</sub> (KΩ)	R <sub>max</sub> (KΩ)
203	0.0288	0.0306	0.0325
204	0.0282	0.03	0.0319
205	0.0277	0.0295	0.0314
206	0.0273	0.029	0.0308
207	0.0267	0.0284	0.0302
208	0.0262	0.0279	0.0297
209	0.0257	0.0274	0.0292
210	0.0254	0.027	0.0287
211	0.0249	0.0265	0.0282
212	0.0244	0.026	0.0277
213	0.024	0.0256	0.0273
214	0.0236	0.0251	0.0267
215	0.0232	0.0247	0.0263
216	0.0228	0.0243	0.0259
217	0.0224	0.0239	0.0255
218	0.0221	0.0235	0.025
219	0.0217	0.0231	0.0246
220	0.0213	0.0227	0.0242
221	0.0209	0.0223	0.0238
222	0.0205	0.0219	0.0234
223	0.0203	0.0216	0.023
224	0.0199	0.0212	0.0226
225	0.0196	0.0209	0.0223
226	0.0192	0.0205	0.0219
227	0.0189	0.0202	0.0216
228	0.0186	0.0199	0.0212
229	0.0183	0.0195	0.0208
230	0.018	0.0192	0.0205
231	0.0177	0.0189	0.0202
232	0.0174	0.0186	0.0199
233	0.0171	0.0183	0.0195
234	0.0168	0.018	0.0192
235	0.0166	0.0177	0.0189
236	0.0164	0.0175	0.0187
237	0.0161	0.0172	0.0184
238	0.0158	0.0169	0.0181
239	0.0156	0.0167	0.0179
240	0.0153	0.0164	0.0175
241	0.0151	0.0162	0.0173
242	0.0149	0.0159	0.017
243	0.0147	0.0157	0.0168
244	0.0144	0.0154	0.0165
245	0.0142	0.0152	0.0163
246	0.014	0.015	0.0161
247	0.0138	0.0148	0.0158
248	0.0135	0.0145	0.0155
249	0.0134	0.0143	0.0153
250	0.0132	0.0141	0.0151

