

- High Sensitivity
- Glass encapsulated
- Temperature range -40° C to 250° C

The **ENTC-G1B-30k3942-1** has a hermetically sealed glass bead. It offers stability and reliability even at very high temperatures.

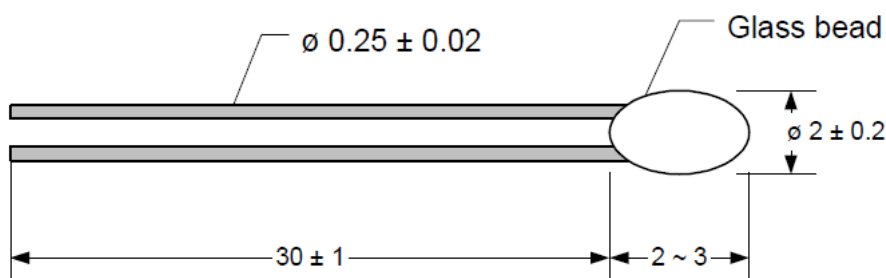
The thermistor can be used in a variety of applications such as heating and cooling systems and hot water boilers. It is well suited for humid environments and where thermal shocks can occur.



Specifications

Element:	NTC Thermistor
Wire material	Ø 0.25mm dumet wire (NiFe alloy w/copper coating)
Resistance at +25°C	30000 Ω
Resistance Tolerance at +25°C	±1%
Beta Value 25/85 constant	3942K ± 1%
Dissipation factor (in still air)	1mW/°C
Thermal time constant (in still air)	~7 sec
Operating temperature range	-40° C to + 250° C

Dimensions in mm



Ordering Information

Order code: ENTC-G1B-30k3942-1



Resistance vs. temperature table for 30k3942-1

R(25) = 30000 Ohms

B(25/85) = 3942K ± 1%

Temp. (°C)	R _{min} (KΩ)	R _{nor.} (KΩ)	R _{max} (KΩ)
-40	873.934	913.4379	954.632
-39	819.8135	856.3179	894.3583
-38	769.4047	803.1495	838.2904
-37	722.4289	753.6337	786.1077
-36	678.6312	707.4971	737.5171
-35	637.7761	664.4873	692.248
-34	599.6476	624.373	650.0529
-33	564.0467	586.9412	610.7039
-32	530.7901	551.9958	573.9913
-31	499.7089	519.3562	539.722
-30	470.6473	488.856	507.7184
-29	443.4618	460.342	477.817
-28	418.0197	433.6726	449.8666
-27	394.1987	408.7173	423.7282
-26	371.8856	385.3555	399.2734
-25	350.9757	363.4757	376.3833
-24	331.3725	342.9752	354.9486
-23	312.9864	323.7586	334.868
-22	295.7347	305.738	316.048
-21	279.5406	288.8318	298.4019
-20	264.333	272.9644	281.8495
-19	250.0459	258.0659	266.3165
-18	236.6183	244.0715	251.7343
-17	223.9935	230.9211	238.0392
-16	212.1186	218.5587	225.1718
-15	200.945	206.9327	213.0775
-14	190.4271	195.9949	201.7053
-13	180.5226	185.7006	191.008
-12	171.1923	176.0083	180.9417
-11	162.3997	166.8794	171.4656
-10	154.1105	158.2778	162.5415
-9	146.2933	150.1702	154.1345
-8	138.9184	142.5254	146.2114
-7	131.9583	135.3143	138.7418
-6	125.3874	128.51	131.6972
-5	119.1819	122.0873	125.0511
-4	113.3191	116.0225	118.7785
-3	107.7786	110.2939	112.8567
-2	102.5406	104.8809	107.2639
-1	97.587	99.7643	101.98
0	92.9008	94.9264	96.9864
1	88.4663	90.3505	92.2656
2	84.2683	86.0209	87.8011
3	80.2931	81.923	83.5776
4	76.5277	78.0433	79.581
5	72.9598	74.3689	75.7976
6	69.5781	70.8879	72.2151
7	66.3718	67.589	68.8216

Temp. (°C)	R _{min} (KΩ)	R _{nor.} (KΩ)	R _{max} (KΩ)
8	63.3309	64.4618	65.6063
9	60.446	61.4964	62.5588
10	57.7083	58.6836	59.6695
11	55.1094	56.0147	56.9292
12	52.6417	53.4817	54.3297
13	50.2979	51.077	51.863
14	48.0709	48.7932	49.5214
15	45.9545	46.6238	47.2981
16	43.9427	44.5625	45.1866
17	42.0295	42.6032	43.1804
18	40.2099	40.7405	41.274
19	38.4785	38.969	39.4618
20	36.8309	37.2839	37.7387
21	35.2624	35.6804	36.0997
22	33.7689	34.1543	34.5406
23	32.3465	32.7014	33.0569
24	30.9914	31.3179	31.6447
25	29.7	30	30.3
26	28.4448	28.7444	29.0443
27	27.249	27.5477	27.8469
28	26.1096	26.407	26.7051
29	25.0236	25.3193	25.6159
30	23.9883	24.2819	24.5766
31	23.0011	23.2923	23.5848
32	22.0595	22.348	22.638
33	21.1611	21.4467	21.734
34	20.3037	20.5862	20.8705
35	19.4855	19.7646	20.0457
36	18.7043	18.9799	19.2577
37	17.9581	18.2301	18.5043
38	17.2455	17.5137	17.7843
39	16.5647	16.829	17.0958
40	15.914	16.1744	16.4374
41	15.2921	15.5484	15.8074
42	14.6975	14.9497	15.2047
43	14.1289	14.377	14.628
44	13.5851	13.829	14.0759
45	13.0648	13.3045	13.5473
46	12.5669	12.8024	13.041
47	12.0903	12.3216	12.556
48	11.6341	11.8612	12.0915
49	11.1973	11.4202	11.6463
50	10.779	10.9977	11.2197
51	10.3783	10.5928	10.8107
52	9.9943	10.2047	10.4185
53	9.6263	9.8326	10.0423
54	9.2736	9.4759	9.6816
55	8.9355	9.1337	9.3354



Resistance vs. temperature table for 30k3942-1 (cont.)

Temp. (°C)	R _{min} (KΩ)	R _{nor.} (KΩ)	R _{max} (KΩ)
56	8.6112	8.8055	9.0032
57	8.3003	8.4906	8.6844
58	8.0019	8.1884	8.3784
59	7.7158	7.8984	8.0846
60	7.441	7.6199	7.8023
61	7.1774	7.3526	7.5313
62	6.9243	7.0958	7.2708
63	6.6813	6.8492	7.0206
64	6.4478	6.6122	6.7801
65	6.2237	6.3846	6.549
66	6.0083	6.1658	6.3268
67	5.8013	5.9554	6.113
68	5.6024	5.7532	5.9075
69	5.4111	5.5587	5.7097
70	5.2273	5.3717	5.5195
71	5.0505	5.1918	5.3365
72	4.8805	5.0187	5.1603
73	4.717	4.8522	4.9908
74	4.5596	4.6919	4.8276
75	4.4082	4.5376	4.6704
76	4.2625	4.3891	4.519
77	4.1221	4.246	4.3731
78	3.9871	4.1082	4.2326
79	3.857	3.9755	4.0972
80	3.7318	3.8477	3.9668
81	3.6111	3.7245	3.841
82	3.4949	3.6058	3.7198
83	3.3829	3.4914	3.603
84	3.275	3.3811	3.4903
85	3.1709	3.2747	3.3815
86	3.0707	3.1722	3.2767
87	2.974	3.0733	3.1756
88	2.8808	2.9779	3.078
89	2.7908	2.8858	2.9837
90	2.7041	2.797	2.8928
91	2.6204	2.7113	2.805
92	2.5396	2.6285	2.7202
93	2.4618	2.5487	2.6384
94	2.3866	2.4716	2.5594
95	2.3139	2.3971	2.483
96	2.2438	2.3252	2.4093
97	2.1761	2.2557	2.338
98	2.1107	2.1886	2.2691
99	2.0476	2.1238	2.2026
100	1.9867	2.0612	2.1383
101	1.9277	2.0006	2.0761
102	1.8708	1.9421	2.016
103	1.8157	1.8855	1.9578
104	1.7625	1.8308	1.9015

Temp. (°C)	R _{min} (KΩ)	R _{nor.} (KΩ)	R _{max} (KΩ)
105	1.7111	1.7779	1.8471
106	1.6614	1.7268	1.7946
107	1.6133	1.6773	1.7436
108	1.5668	1.6294	1.6943
109	1.5218	1.5831	1.6467
110	1.4783	1.5383	1.6005
111	1.4363	1.495	1.5559
112	1.3956	1.453	1.5126
113	1.3562	1.4124	1.4708
114	1.318	1.373	1.4302
115	1.2811	1.3349	1.3909
116	1.2454	1.2981	1.3529
117	1.2107	1.2623	1.316
118	1.1772	1.2277	1.2802
119	1.1448	1.1942	1.2457
120	1.1134	1.1618	1.2122
121	1.0829	1.1303	1.1797
122	1.0534	1.0998	1.1481
123	1.0249	1.0703	1.1176
124	0.9971	1.0416	1.088
125	0.9702	1.0138	1.0592
126	0.9442	0.9869	1.0314
127	0.919	0.9608	1.0044
128	0.8946	0.9355	0.9782
129	0.8709	0.911	0.9528
130	0.8478	0.8871	0.9281
131	0.8255	0.864	0.9042
132	0.8039	0.8416	0.8809
133	0.783	0.8199	0.8585
134	0.7627	0.7988	0.8366
135	0.7429	0.7783	0.8153
136	0.7237	0.7584	0.7947
137	0.7051	0.7391	0.7747
138	0.687	0.7203	0.7551
139	0.6695	0.7021	0.7363
140	0.6525	0.6845	0.718
141	0.636	0.6673	0.7001
142	0.6199	0.6506	0.6828
143	0.6043	0.6344	0.6659
144	0.5892	0.6187	0.6496
145	0.5745	0.6034	0.6337
146	0.5603	0.5886	0.6183
147	0.5464	0.5742	0.6033
148	0.5329	0.5601	0.5887
149	0.5198	0.5465	0.5745
150	0.5071	0.5333	0.5608
151	0.4947	0.5204	0.5474
152	0.4826	0.5078	0.5342
153	0.471	0.4957	0.5216



Resistance vs. temperature table for 10k3942-1 (cont.)

Temp. (°C)	R _{min} (KΩ)	R _{nor.} (KΩ)	R _{max} (KΩ)
154	0.4596	0.4838	0.5092
155	0.4486	0.4723	0.4972
156	0.4378	0.4611	0.4856
157	0.4274	0.4502	0.4742
158	0.4172	0.4396	0.4631
159	0.4073	0.4293	0.4524
160	0.3978	0.4193	0.442
161	0.3884	0.4095	0.4317
162	0.3793	0.4	0.4218
163	0.3704	0.3907	0.4121
164	0.3617	0.3817	0.4027
165	0.3534	0.373	0.3936
166	0.3452	0.3644	0.3846
167	0.3372	0.3561	0.376
168	0.3295	0.348	0.3675
169	0.3219	0.3401	0.3592
170	0.3147	0.3325	0.3513
171	0.3075	0.325	0.3434
172	0.3005	0.3177	0.3358
173	0.2938	0.3106	0.3284
174	0.2872	0.3037	0.3212
175	0.2808	0.297	0.3141
176	0.2745	0.2904	0.3072
177	0.2684	0.284	0.3005
178	0.2624	0.2778	0.294
179	0.2566	0.2717	0.2876
180	0.251	0.2658	0.2815
181	0.2455	0.26	0.2754
182	0.2401	0.2544	0.2695
183	0.2349	0.2489	0.2637
184	0.2298	0.2436	0.2582
185	0.2249	0.2384	0.2527
186	0.22	0.2333	0.2474
187	0.2153	0.2283	0.2421
188	0.2107	0.2235	0.2371
189	0.2061	0.2187	0.232
190	0.2017	0.2141	0.2272
191	0.1975	0.2096	0.2225
192	0.1934	0.2053	0.218
193	0.1893	0.201	0.2134
194	0.1853	0.1968	0.209
195	0.1814	0.1927	0.2047
196	0.1777	0.1888	0.2006
197	0.174	0.1849	0.1965
198	0.1704	0.1811	0.1925
199	0.1668	0.1774	0.1886
200	0.1634	0.1738	0.1848
201	0.1601	0.1703	0.1811
202	0.1568	0.1668	0.1774

Temp. (°C)	R _{min} (KΩ)	R _{nor.} (KΩ)	R _{max} (KΩ)
203	0.1535	0.1634	0.1739
204	0.1505	0.1602	0.1705
205	0.1475	0.157	0.1671
206	0.1444	0.1538	0.1637
207	0.1416	0.1508	0.1606
208	0.1388	0.1478	0.1574
209	0.136	0.1449	0.1544
210	0.1333	0.142	0.1513
211	0.1306	0.1392	0.1484
212	0.128	0.1365	0.1455
213	0.1255	0.1338	0.1427
214	0.123	0.1312	0.1399
215	0.1207	0.1287	0.1373
216	0.1183	0.1262	0.1346
217	0.116	0.1238	0.1321
218	0.1137	0.1214	0.1296
219	0.1116	0.1191	0.1271
220	0.1094	0.1168	0.1247
221	0.1073	0.1146	0.1224
222	0.1052	0.1124	0.12
223	0.1032	0.1103	0.1178
224	0.1013	0.1082	0.1156
225	0.0994	0.1062	0.1135
226	0.0975	0.1042	0.1114
227	0.0957	0.1023	0.1094
228	0.0939	0.1004	0.1074
229	0.0921	0.0985	0.1053
230	0.0904	0.0967	0.1034
231	0.0887	0.0949	0.1015
232	0.0871	0.0932	0.0997
233	0.0855	0.0915	0.0979
234	0.0839	0.0898	0.0961
235	0.0824	0.0882	0.0944
236	0.0809	0.0866	0.0927
237	0.0794	0.085	0.091
238	0.0779	0.0835	0.0894
239	0.0765	0.082	0.0879
240	0.0751	0.0805	0.0863
241	0.0738	0.0791	0.0848
242	0.0725	0.0777	0.0833
243	0.0712	0.0763	0.0818
244	0.0698	0.0749	0.0803
245	0.0686	0.0736	0.0789
246	0.0674	0.0723	0.0776
247	0.0663	0.0711	0.0763
248	0.065	0.0698	0.0749
249	0.0639	0.0686	0.0736
250	0.0628	0.0674	0.0724

