



- ▶ **Stainless Steel Tubular Sensor**
- ▶ **Miniature design with 316 stainless steel tubular housing - IP67 sealing**
- ▶ **Temperature range -40 to +125°C**
- ▶ **Resistance values from 2.2 - 100 kΩ**
- ▶ **Improved potting epoxy has outstanding thermal conductivity for faster response times**

**Applications:**

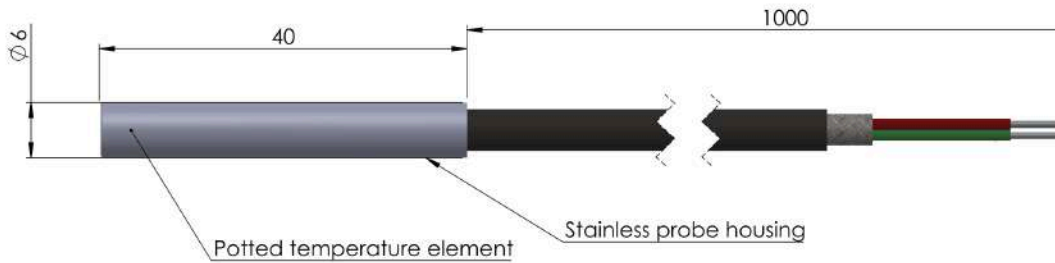
Heating / cooling systems  
Energy

Laboratory  
HVAC

Industrial process  
Drilling

Specifications		
	Unit	Value
Sensing element		10K3A1B
Nominal resistance at +25°C	Ohms	10,000
Resistance tolerance from 0..70°C	°C	+/- 0.2
Beta value 25/85	K	3976
Tolerance on Beta value 25/85	%	+/- 0.5
Dissipation constant in still air	mW/°C	2
Working temperature	°C	-40..125
Environmental temperature	°C	-40..70
Epoxy thermal conductivity	W/(m.K)	1.7
Response time in liquids:t90	s	Approx 25s
Isolation resistance	kV	1
Sealing		IP67
Material		
Leads and insulation	PVC shielded 1m	
Probe Material	316 stainless steel	
Wiring		
Red + Blue	Thermistor	
Green + Yellow	No connect	

Reference dimensions



Ordering information

Example Code: 94052 - ETP-TP-SS-40-6-100-GA10K3A1B

Resistance vs. Temperature Table for 10K3A1B Thermistor

Temp. °C	Ohms
-40	336,052
-39	314,512
-38	294,487
-37	275,863
-36	258,533
-35	242,399
-34	227,373
-33	213,371
-32	200,318
-31	188,144
-30	176,786
-29	166,183
-28	156,280
-27	147,029
-26	138,382
-25	130,296
-24	122,732
-23	115,653
-22	109,025
-21	102,817
-20	97,000
-19	91,547
-18	86,433
-17	81,636
-16	77,134
-15	72,907
-14	68,937
-13	65,206
-12	61,700
-11	58,403
-10	55,301
-9	52,383
-8	49,636
-7	47,049
-6	44,612
-5	42,315
-4	40,150
-3	38,109
-2	36,183
-1	34,366
0	32650
1	31,030
2	29,500

Temp. °C	Ohms
3	28,054
4	26,687
5	25,395
6	24,172
7	23,016
8	21,921
9	20,884
10	19,903
11	18,973
12	18,092
13	17,257
14	16,465
15	15,714
16	15,001
17	14,324
18	13,682
19	13,073
20	12,493
21	11,943
22	11,420
23	10,923
24	10,450
25	10,000
26	9,572.0
27	9,164.7
28	8,777.0
29	8,407.8
30	8,056.1
31	7,721.0
32	7,401.7
33	7,097.3
34	6,807.1
35	6,530.3
36	6,266.3
37	6,014.3
38	5,773.8
39	5,544.3
40	5,325.0
41	5,115.7
42	4,915.6
43	4,724.5
44	4,541.7
45	4,367.1

Temp. °C	Ohms
46	4,200.0
47	4,040.2
48	3,887.4
49	3,741.1
50	3,601.1
51	3,467.1
52	3,338.7
53	3,215.8
54	3,098.0
55	2,985.2
56	2,877.0
57	2,773.3
58	2,673.9
59	2,578.6
60	2,487.1
61	2,399.4
62	2,315.2
63	2,234.4
64	2,156.8
65	2,082.3
66	2,010.8
67	1,942.1
68	1,876.0
69	1,812.6
70	1,751.6
71	1,693.0
72	1,636.6
73	1,582.4
74	1,530.2
75	1,480.1
76	1,431.8
77	1,385.3
78	1,340.6
79	1,297.5
80	1,256.1
81	1,216.1
82	1,177.7
83	1,140.6
84	1,104.9
85	1,070.4
86	1,037.3
87	1,005.3
88	974.4

Temp. °C	Ohms
89	944.7
90	916.0
91	888.3
92	861.5
93	835.7
94	810.8
95	786.8
96	763.6
97	741.2
98	719.5
99	698.6
100	678.4
101	658.9
102	640.0
103	621.8
104	604.1
105	587.1
106	570.6
107	554.6
108	539.2
109	524.3
110	509.8
111	495.8
112	482.3
113	469.2
114	456.5
115	444.2
116	432.3
117	420.8
118	409.6
119	398.8
120	388.3
121	378.2
122	368.3
123	358.8
124	349.5
125	340.6