

MINI BETACURVE THERMISTOR PROBE (MBD)

SPECIFICATIONS

- NTC Temperature Sensor
- Fast time response
- Small tip diameter
- Various lead lengths available

NTC thermistor soldered to 30 AWG Solid Silver Plated Copper Wire with PVDF Insulation. Unit is potted in a polyimide tube with thermally conductive black epoxy.

FEATURES

- Rapid Time Constant
(400 milliseconds in liquids).
- Standards supplied with $\pm 0.2^{\circ}\text{C}$ tolerance
(0°C to 70°C).
- Custom tolerances available on request
- Temperature range -40°C to $+125^{\circ}\text{C}$

APPLICATIONS

- Reduced size allows localized
temperature sensing
- Small Medical probes
- Micro-flow sensing

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PERFORMANCE SPECS

Parameters	Units	Value
Nominal Resistance at +25°C	Ohms	3000
Resistance tolerance from 0°C to +70°C	°C	± 0.2
Alpha Value at +25°C	%/°C	4.39
Beta Value 25/85	K	3976
Tolerance on Beta Value 25/85	%	± 0.5
Time response in Liquids	milliseconds	400
Dissipation Constant in still air	mW/°C	0.5

MECHANICAL DETAILS

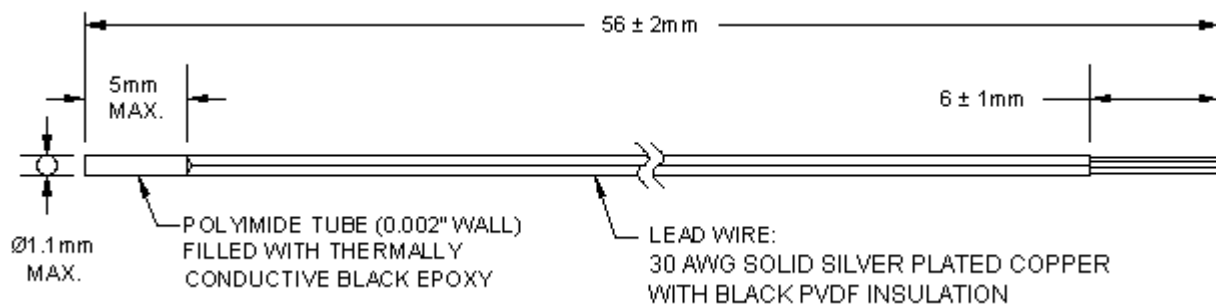


Figure 1: Mini BetaCURVE Thermistor Probe (MBD)

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RESISTANCE V TEMPERATURE TABLE

Temp °C	Ohms
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-40	100,621.4
-39	94,182.5
-38	88,195.7
-37	82,626.6
-36	77,443.6
-35	72,617.7
-34	68,122.3
-33	63,932.9
-32	60,026.8
-31	56,383.4
-30	52,983.4
-29	49,809.1
-28	46,844.4
-27	44,074.2
-26	41,484.6
-25	39,062.8
-24	36,797.1
-23	34,676.5
-22	32,690.8
-21	30,830.8
-20	29,087.8
-19	27,453.8
-18	25,921.3
-17	24,483.5
-16	23,134.0
-15	21,866.9
-14	20,676.7
-13	19,558.4
-12	18,507.1
-11	17,518.6
-10	16,588.6
-9	15,713.5
-8	14,889.7
-7	14,113.9
-6	13,383.0
-5	12,694.3
-4	12,045.0
-3	11,432.7
-2	10,855.0
-1	10,309.9
0	9,795.3
1	9,309.3

Temp °C	Ohms
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2	8,850.3
3	8,416.5
4	8,006.5
5	7,618.8
6	7,252.0
7	6,905.0
8	6,576.6
9	6,265.7
10	5,971.2
11	5,692.3
12	5,427.9
13	5,177.3
14	4,939.7
15	4,714.3
16	4,500.4
17	4,297.5
18	4,104.8
19	3,921.9
20	3,748.1
21	3,583.0
22	3,426.0
23	3,276.8
24	3,135.0
25	3,000.0
26	2,871.6
27	2,749.4
28	2,633.1
29	2,522.3
30	2,416.8
31	2,316.2
32	2,220.4
33	2,129.1
34	2,042.0
35	1,959.0
36	1,879.8
37	1,804.2
38	1,732.0
39	1,663.2
40	1,597.4
41	1,534.6
42	1,474.6
43	1,417.2

Temp °C	Ohms
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44	1,362.4
45	1,310.0
46	1,259.9
47	1,212.0
48	1,166.1
49	1,122.2
50	1,080.2
51	1,040.0
52	1,001.5
53	964.6
54	929.3
55	895.5
56	863.0
57	831.9
58	802.1
59	773.5
60	746.1
61	719.8
62	694.5
63	670.3
64	647.0
65	624.7
66	603.2
67	582.6
68	562.8
69	543.8
70	525.5
71	507.9
72	491.0
73	474.7
74	459.1
75	444.0
76	429.6
77	415.6
78	402.2
79	389.3
80	376.9
81	364.9
82	353.4
83	342.2
84	331.5
85	321.2

Temp °C	Ohms
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86	311.3
87	301.7
88	292.4
89	283.5
90	274.9
91	266.6
92	258.6
93	250.8
94	243.4
95	236.1
96	229.2
97	222.5
98	216.0
99	209.7
100	203.6
101	197.8
102	192.1
103	186.7
104	181.4
105	176.2
106	171.3
107	166.5
108	161.9
109	157.4
110	153.1
111	148.9
112	144.8
113	140.9
114	137.1
115	133.4
116	129.8
117	126.4
118	123.0
119	119.8
120	116.6
121	113.6
122	110.6
123	107.8
124	105.0
125	102.3

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ORDERING INFORMATION

Part Number	Description	Ω @25°C	MOQ
3K3MBD1	Mini BetaCurve Thermistor Probe (MBD)	3000	1000 *

* For quantities less than Minimum Order Quantity – contact distribution

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