

MINI BETACURVE (MBD)

Thermistor Probe

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

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FEATURES

- Rapid Time Constant
(400 milliseconds in liquids).
- Standards supplied with $\pm 0.2^{\circ}\text{C}$ tolerance
(0°C to $+70^{\circ}\text{C}$).
- 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

PERFORMANCE SPECS

Parameters	Units	Value
Nominal Resistance at $+25^{\circ}\text{C}$	Ohms	100000
Resistance tolerance from 0°C to $+70^{\circ}\text{C}$	$^{\circ}\text{C}$	± 0.2
Alpha Value at $+25^{\circ}\text{C}$	$\%/^{\circ}\text{C}$	4.68
Beta Value 25/85	K	4261
Tolerance on Beta Value 25/85	%	± 0.5
Time response in Liquids	milliseconds	400
Dissipation Constant in still air	$\text{mW}/^{\circ}\text{C}$	0.5

MECHANICAL DETAILS

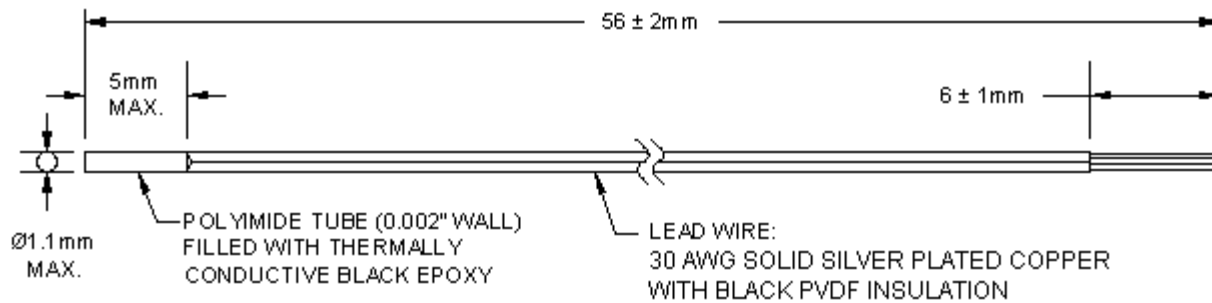


Figure 1: Mini BetaCURVE Thermistor Probe (MBD)

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RESISTANCE V TEMPERATURE TABLE

Temp. °C	Ohms
-40	4,071,370
-39	3,799,004
-38	3,546,481
-37	3,312,243
-36	3,094,866
-35	2,893,041
-34	2,705,570
-33	2,531,351
-32	2,369,375
-31	2,218,714
-30	2,078,515
-29	1,947,995
-28	1,826,432
-27	1,713,162
-26	1,607,574
-25	1,509,106
-24	1,417,239
-23	1,331,495
-22	1,251,431
-21	1,176,643
-20	1,106,752
-19	1,041,413
-18	980,305
-17	923,131
-16	869,616
-15	819,508
-14	772,570
-13	728,587
-12	687,355
-11	648,689
-10	612,416
-9	578,374
-8	546,415
-7	516,401
-6	488,202
-5	461,700
-4	436,784
-3	413,350
-2	391,304
-1	370,555
0	351,020

Temp. °C	Ohms
1	332,623
2	315,290
3	298,956
4	283,557
5	269,036
6	255,337
7	242,410
8	230,207
9	218,685
10	207,801
11	197,518
12	187,800
13	178,611
14	169,921
15	161,701
16	153,922
17	146,559
18	139,587
19	132,983
20	126,727
21	120,799
22	115,179
23	109,850
24	104,795
25	100,000
26	95,449
27	91,129
28	87,027
29	83,131
30	79,430
31	75,913
32	72,569
33	69,390
34	66,367
35	63,491
36	60,754
37	58,150
38	55,670
39	53,309
40	51,060
41	48,917

Temp. °C	Ohms
42	46,875
43	44,929
44	43,073
45	41,303
46	39,615
47	38,004
48	36,467
49	35,000
50	33,599
51	32,262
52	30,984
53	29,763
54	28,596
55	27,481
56	26,415
57	25,395
58	24,420
59	23,487
60	22,594
61	21,740
62	20,922
63	20,138
64	19,388
65	18,670
66	17,981
67	17,322
68	16,689
69	16,083
70	15,502
71	14,945
72	14,410
73	13,897
74	13,405
75	12,932
76	12,478
77	12,043
78	11,625
79	11,223
80	10,837
81	10,466
82	10,109

Temp. °C	Ohms
83	9,767
84	9,437
85	9,121
86	8,816
87	8,523
88	8,241
89	7,970
90	7,708
91	7,457
92	7,215
93	6,982
94	6,758
95	6,541
96	6,333
97	6,132
98	5,939
99	5,753
100	5,573
101	5,400
102	5,232
103	5,071
104	4,916
105	4,766
106	4,621
107	4,481
108	4,346
109	4,216
110	4,090
111	3,969
112	3,852
113	3,738
114	3,629
115	3,523
116	3,421
117	3,322
118	3,227
119	3,134
120	3,045
121	2,959
122	2,875
123	2,794
124	2,716
125	2,640

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ORDERING INFORMATION

Part Number	Description	Ω @25°C	MOQ
100K6MBD1	Mini BetaCurve Thermistor Probe (MBD)	100000	1000 *

* For quantities less than Minimum Order Quantity – contact distribution

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