

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

MINI BETACURVE THERMISTOR PROBE (MBD)

PERFORMANCE SPECS

Parameters	Units	Value
Nominal Resistance at +25°C	Ohms	5000
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

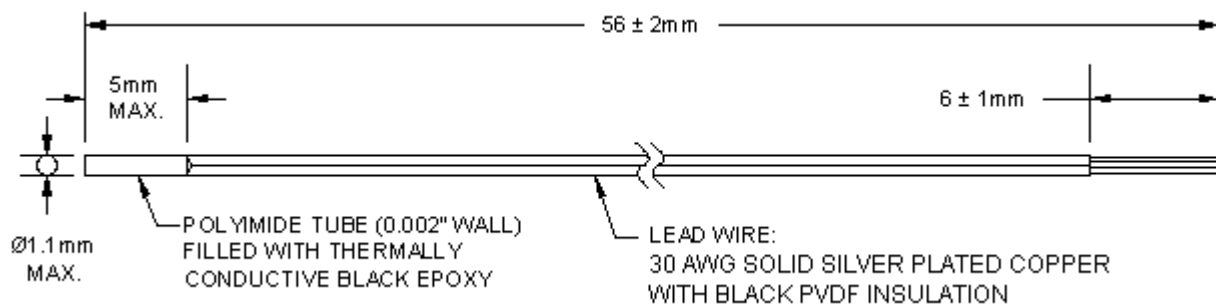


Figure 1: Mini BetaCURVE Thermistor Probe (MBD)

MINI BETACURVE THERMISTOR PROBE (MBD)

RESISTANCE V TEMPERATURE TABLE

Temp °C	Ohms
---------	------

-40	167,863.9
-39	157,113.5
-38	147,118.6
-37	137,821.8
-36	129,170.3
-35	121,115.5
-34	113,612.9
-33	106,621.3
-32	100,103.2
-31	94,023.6
-30	88,350.5
-29	83,054.5
-28	78,108.4
-27	73,487.0
-26	69,167.2
-25	65,127.6
-24	61,348.4
-23	57,811.4
-22	54,499.6
-21	51,397.6
-20	48,490.8
-19	45,765.8
-18	43,210.3
-17	40,812.8
-16	38,562.6
-15	36,449.9
-14	34,465.4
-13	32,600.8
-12	30,848.2
-11	29,200.1
-10	27,649.7
-9	26,190.8
-8	24,817.5
-7	23,524.2
-6	22,305.9
-5	21,157.7
-4	20,075.4
-3	19,054.7
-2	18,091.9
-1	17,183.2
0	16,325.5
1	15,515.5

Temp °C	Ohms
---------	------

2	14,750.4
3	14,027.4
4	13,344.0
5	12,697.8
6	12,086.5
7	11,508.2
8	10,960.8
9	10,442.6
10	9,951.8
11	9,486.9
12	9,046.3
13	8,628.6
14	8,232.6
15	7,857.0
16	7,500.6
17	7,162.4
18	6,841.3
19	6,536.4
20	6,246.7
21	5,971.6
22	5,710.0
23	5,461.4
24	5,224.9
25	5,000.0
26	4,786.0
27	4,582.3
28	4,388.5
29	4,203.8
30	4,028.0
31	3,860.4
32	3,700.8
33	3,548.6
34	3,403.5
35	3,265.1
36	3,133.0
37	3,007.0
38	2,886.8
39	2,772.0
40	2,662.4
41	2,557.7
42	2,457.7
43	2,362.1

Temp °C	Ohms
---------	------

44	2,270.8
45	2,183.4
46	2,099.9
47	2,020.0
48	1,943.6
49	1,870.5
50	1,800.5
51	1,733.4
52	1,669.3
53	1,607.8
54	1,548.9
55	1,492.5
56	1,438.4
57	1,386.6
58	1,336.9
59	1,289.2
60	1,243.5
61	1,199.7
62	1,157.6
63	1,117.2
64	1,078.4
65	1,041.1
66	1,005.4
67	971.0
68	938.0
69	906.3
70	875.8
71	846.5
72	818.3
73	791.2
74	765.1
75	740.1
76	715.9
77	692.7
78	670.3
79	648.8
80	628.1
81	608.1
82	588.9
83	570.4
84	552.5
85	535.3

Temp °C	Ohms
---------	------

86	518.7
87	502.7
88	487.3
89	472.4
90	458.1
91	444.2
92	430.9
93	418.0
94	405.5
95	393.5
96	381.9
97	370.7
98	359.9
99	349.4
100	339.3
101	329.6
102	320.1
103	311.0
104	302.2
105	293.7
106	285.4
107	277.4
108	269.7
109	262.3
110	255.0
111	248.0
112	241.3
113	234.7
114	228.4
115	222.2
116	216.3
117	210.5
118	205.0
119	199.5
120	194.3
121	189.2
122	184.3
123	179.5
124	174.9
125	170.4

MINI BETACURVE THERMISTOR PROBE (MBD)

ORDERING INFORMATION

Part Number	Description	Ω @25°C	MOQ
5K3MBD1	Mini BetaCurve Thermistor Probe (MBD)	5000	1000 *

* For quantities less than Minimum Order Quantity – contact distribution

NORTH AMERICA

Measurement Specialties, Inc.,
a TE Connectivity Company
1711 139th Lane NW
Andover, MN 55304
Tel: +1 763 689 4870
Fax: +1 763 689 5033
customer care.ando@te.com

EUROPE

Measurement Specialties (Europe), Ltd.,
a TE Connectivity Company
Ballybrit Business Park
Galway Ireland
Tel : +353-91-753238
Fax : +353-91-770789
Email: customer care.glw@te.com

ASIA

Measurement Specialties (China), Ltd.,
a TE Connectivity Company
No. 368 Wulian 1st Road
Gongxing Town
Shuangliu, Chengdu
Sichuan, 610200
China
Tel: +86 (0) 28 8573 9088
Fax: +86 (0) 28 8573 9070
Email: customer care.chdu@te.com

te.com/sensorsolutions

Measurement Specialties, Inc., a TE Connectivity company.

Measurement Specialties (MEAS), American Sensor Technologies (AST), TE Connectivity, TE Connectivity (logo) and EVERY CONNECTION COUNTS are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

© 2016 TE Connectivity Ltd. family of companies All Rights Reserved.