

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.

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	10000
Resistance tolerance from 0°C to $+70^{\circ}\text{C}$	$^{\circ}\text{C}$	± 0.2
Alpha Value at $+25^{\circ}\text{C}$	$\%/^{\circ}\text{C}$	4.39
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	$\text{mW}/^{\circ}\text{C}$	0.5

MECHANICAL DETAILS

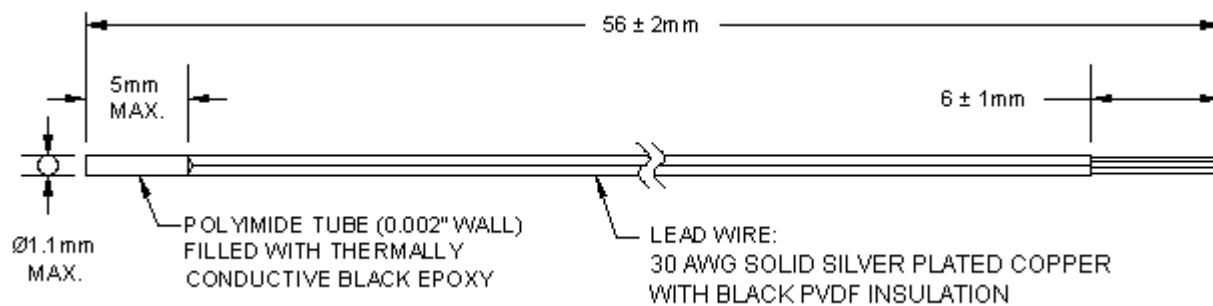


Figure 1: Mini BetaCURVE Thermistor Probe (MBD)

RESISTANCE V TEMPERATURE TABLE

Temp. °C	Ohms	Temp. °C	Ohms	Temp. °C	Ohms	Temp. °C	Ohms
-40	336103.2	1	31030.8	42	4915.6	83	1140.6
-39	314558.0	2	29500.5	43	4724.4	84	1104.9
-38	294529.1	3	28054.4	44	4541.7	85	1070.5
-37	275900.8	4	26687.5	45	4367.0	86	1037.3
-36	258567.0	5	25395.0	46	4200.0	87	1005.3
-35	242430.2	6	24172.5	47	4040.2	88	974.4
-34	227400.9	7	23015.9	48	3887.4	89	944.7
-33	213396.6	8	21921.2	49	3741.1	90	916.0
-32	200341.4	9	20884.7	50	3601.1	91	888.3
-31	188165.5	10	19903.2	51	3467.0	92	861.5
-30	176804.8	11	18973.3	52	3338.7	93	835.8
-29	166199.8	12	18092.2	53	3215.8	94	810.9
-28	156296.1	13	17256.9	54	3098.0	95	786.8
-27	147043.2	14	16464.9	55	2985.2	96	763.6
-26	138394.7	15	15713.7	56	2877.0	97	741.2
-25	130307.6	16	15000.9	57	2773.3	98	719.6
-24	122742.3	17	14324.5	58	2673.9	99	698.6
-23	115662.2	18	13682.3	59	2578.6	100	678.4
-22	109033.4	19	13072.6	60	2487.1	101	658.9
-21	102824.6	20	12493.3	61	2399.4	102	640.0
-20	97006.9	21	11943.0	62	2315.2	103	621.8
-19	91553.3	22	11419.9	63	2234.4	104	604.2
-18	86439.2	23	10922.7	64	2156.8	105	587.1
-17	81641.4	24	10449.8	65	2082.3	106	570.6
-16	77138.6	25	10000.0	66	2010.8	107	554.6
-15	72911.1	26	9572.0	67	1942.1	108	539.2
-14	68940.4	27	9164.7	68	1876.0	109	524.3
-13	65209.7	28	8777.0	69	1812.6	110	509.8
-12	61702.9	29	8407.7	70	1751.6	111	495.9
-11	58405.5	30	8056.1	71	1693.0	112	482.3
-10	55303.9	31	7721.0	72	1636.6	113	469.2
-9	52385.2	32	7401.7	73	1582.4	114	456.5
-8	49637.8	33	7097.3	74	1530.2	115	444.2
-7	47050.6	34	6807.1	75	1480.1	116	432.3
-6	44613.4	35	6530.3	76	1431.8	117	420.8
-5	42316.7	36	6266.2	77	1385.3	118	409.7
-4	40151.6	37	6014.3	78	1340.6	119	398.8
-3	38110.0	38	5773.8	79	1297.5	120	388.4
-2	36184.0	39	5544.2	80	1256.1	121	378.2
-1	34366.6	40	5325.0	81	1216.1	122	368.3
0	32650.9	41	5115.6	82	1177.7	123	358.8
						124	349.5
						125	340.6

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ORDERING INFORMATION

Part Number	Description	Ω @25°C	MOQ
10K3MBD1	Mini BetaCurve Thermistor Probe (MBD)	10000	1000 *

* For quantities less than Minimum Order Quantity – contact distribution

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