

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
Resistance @ +25°C	Ohms	10,000
Resistance tolerance from 0°C to +70°C	°C	± 0.2
Alpha Value @ 25°C	%/°C	4.04
Beta Value 25/85	K	3694
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

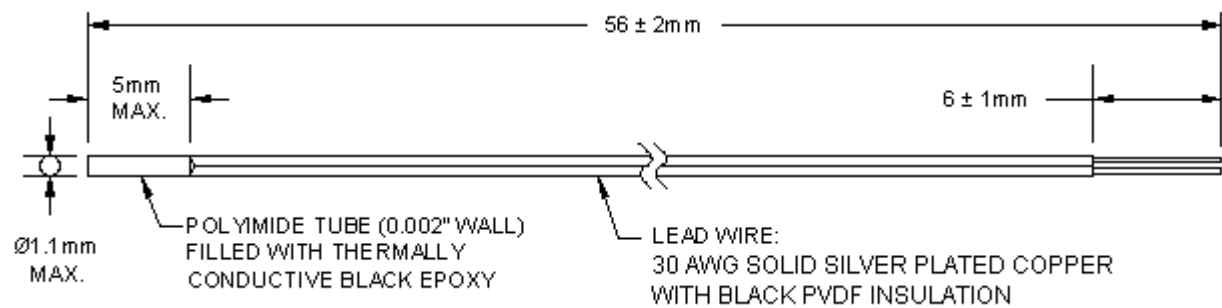


Figure 1: Mini BetaCURVE Thermistor Probe (MBD)

RESISTANCE V TEMPERATURE TABLE

Temp °C	Ohms	Temp °C	Ohms	Temp °C	Ohms	Temp °C	Ohms
-40	239,828.4	2	26,891.1	44	4,827.9	86	1,218.3
-39	226,102.9	3	25,689.0	45	4,655.6	87	1,183.0
-38	213,242.6	4	24,547.0	46	4,490.4	88	1,148.8
-37	201,188.1	5	23,461.9	47	4,331.8	89	1,115.8
-36	189,884.7	6	22,430.6	48	4,179.7	90	1,084.0
-35	179,281.5	7	21,450.0	49	4,033.6	91	1,053.1
-34	169,331.4	8	20,517.5	50	3,893.3	92	1,023.3
-33	159,990.6	9	19,630.5	51	3,758.6	93	994.5
-32	151,218.6	10	18,786.5	52	3,629.2	94	966.6
-31	142,977.6	11	17,983.3	53	3,504.9	95	939.6
-30	135,232.8	12	17,218.6	54	3,385.5	96	913.5
-29	127,951.6	13	16,490.4	55	3,270.7	97	888.2
-28	121,103.8	14	15,796.9	56	3,160.4	98	863.8
-27	114,661.2	15	15,136.1	57	3,054.3	99	840.1
-26	108,597.9	16	14,506.5	58	2,952.3	100	817.2
-25	102,889.5	17	13,906.3	59	2,854.2	101	795.0
-24	97,513.2	18	13,334.0	60	2,759.9	102	773.5
-23	92,448.2	19	12,788.3	61	2,669.1	103	752.7
-22	87,674.6	20	12,267.8	62	2,581.7	104	732.6
-21	83,174.3	21	11,771.1	63	2,497.6	105	713.0
-20	78,930.1	22	11,297.1	64	2,416.7	106	694.1
-19	74,926.2	23	10,844.6	65	2,338.7	107	675.8
-18	71,147.7	24	10,412.6	66	2,263.7	108	658.0
-17	67,580.8	25	10,000.0	67	2,191.4	109	640.8
-16	64,212.4	26	9,605.9	68	2,121.7	110	624.1
-15	61,030.6	27	9,229.3	69	2,054.7	111	607.9
-14	58,024.0	28	8,869.4	70	1,990.0	112	592.2
-13	55,182.1	29	8,525.4	71	1,927.7	113	577.0
-12	52,495.1	30	8,196.4	72	1,867.6	114	562.2
-11	49,953.6	31	7,881.9	73	1,809.7	115	547.9
-10	47,549.2	32	7,581.0	74	1,753.9	116	534.0
-9	45,273.6	33	7,293.1	75	1,700.0	117	520.6
-8	43,119.3	34	7,017.6	76	1,648.1	118	507.5
-7	41,079.3	35	6,753.9	77	1,597.9	119	494.8
-6	39,146.9	36	6,501.4	78	1,549.6	120	482.5
-5	37,315.9	37	6,259.6	79	1,502.9	121	470.5
-4	35,580.5	38	6,028.1	80	1,457.9	122	458.9
-3	33,935.2	39	5,806.2	81	1,414.4	123	447.6
-2	32,374.8	40	5,593.7	82	1,372.4	124	436.7
-1	30,894.6	41	5,390.0	83	1,331.8	125	426.0
0	29,490.0	42	5,194.7	84	1,292.7		
1	28,156.8	43	5,007.4	85	1,254.8		

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ORDERING INFORMATION

Part Number	Description	Ω @25°C	MOQ
10K4MBD1	Mini BetaCurve Thermistor Probe (MBD)	10,000	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.glwy@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

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