

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	50,000
Resistance tolerance from 0°C to +70°C	°C	± 0.2
Alpha Value @ 25°C	%/°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	mW/°C	0.5

MECHANICAL DETAILS

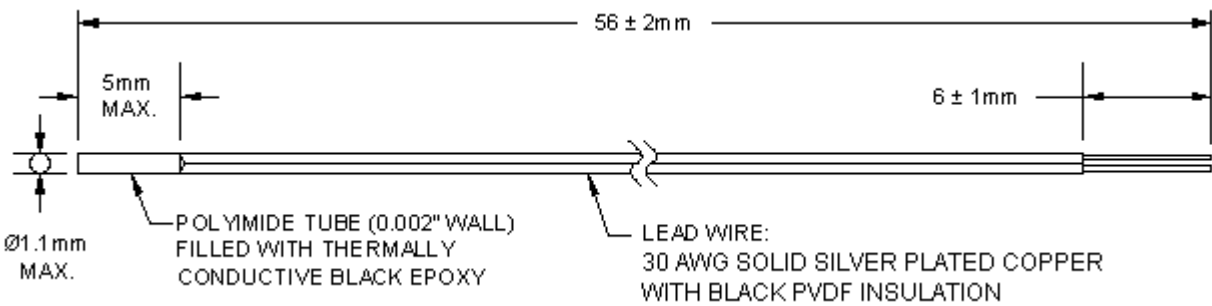


Figure 1: Mini BetaCURVE Thermistor Probe (MBD)

RESISTANCE V TEMPERATURE TABLE

Temp °C	Ohms	Temp °C	Ohms	Temp °C	Ohms	Temp °C	Ohms
-40	2,033,641	2	157,646	44	21,536	86	4,408
-39	1,897,702	3	149,480	45	20,651	87	4,262
-38	1,771,656	4	141,781	46	19,807	88	4,121
-37	1,654,729	5	134,520	47	19,001	89	3,985
-36	1,546,208	6	127,671	48	18,233	90	3,855
-35	1,445,445	7	121,207	49	17,499	91	3,729
-34	1,351,841	8	115,106	50	16,799	92	3,608
-33	1,264,847	9	109,345	51	16,130	93	3,492
-32	1,183,962	10	103,903	52	15,491	94	3,379
-31	1,108,722	11	98,761	53	14,881	95	3,271
-30	1,038,702	12	93,902	54	14,297	96	3,167
-29	973,512	13	89,307	55	13,740	97	3,067
-28	912,792	14	84,962	56	13,207	98	2,970
-27	856,212	15	80,852	57	12,697	99	2,877
-26	803,466	16	76,962	58	12,209	100	2,787
-25	754,274	17	73,280	59	11,743	101	2,701
-24	708,378	18	69,794	60	11,297	102	2,617
-23	665,538	19	66,493	61	10,869	103	2,536
-22	625,535	20	63,364	62	10,460	104	2,459
-21	588,165	21	60,400	63	10,069	105	2,384
-20	553,242	22	57,590	64	9,694	106	2,311
-19	520,592	23	54,925	65	9,335	107	2,241
-18	490,054	24	52,398	66	8,991	108	2,174
-17	461,482	25	50,000	67	8,661	109	2,109
-16	434,737	26	47,724	68	8,345	110	2,046
-15	409,694	27	45,564	69	8,042	111	1,985
-14	386,235	28	43,513	70	7,751	112	1,927
-13	364,251	29	41,565	71	7,472	113	1,870
-12	343,643	30	39,715	72	7,205	114	1,815
-11	324,316	31	37,956	73	6,949	115	1,763
-10	306,184	32	36,284	74	6,702	116	1,711
-9	289,168	33	34,694	75	6,466	117	1,662
-8	273,192	34	33,183	76	6,239	118	1,614
-7	258,188	35	31,745	77	6,022	119	1,568
-6	244,092	36	30,376	78	5,813	120	1,523
-5	230,843	37	29,074	79	5,612	121	1,480
-4	218,387	38	27,834	80	5,419	122	1,439
-3	206,672	39	26,654	81	5,233	123	1,398
-2	195,650	40	25,529	82	5,055	124	1,359
-1	185,276	41	24,458	83	4,884	125	1,321
0	175,510	42	23,437	84	4,719		
1	166,312	43	22,463	85	4,561		

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ORDERING INFORMATION

Part Number	Description	Ω @25°C	MOQ
50K6MBD1	Mini BetaCurve Thermistor Probe (MBD)	50,000	1000 *

* For quantities less than Minimum Order Quantity – contact distribution

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