

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	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

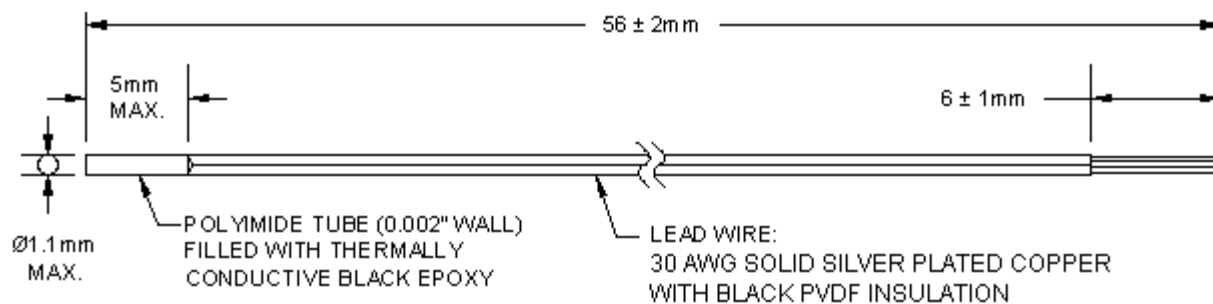


Figure 1: Mini BetaCURVE Thermistor Probe (MBD)

RESISTANCE V TEMPERATURE TABLE

Temp. °C	Ohms	Temp. °C	Ohms	Temp. °C	Ohms	Temp. °C	Ohms
-40	4,071,370	1	332,623	42	46,875	83	9,767
-39	3,799,004	2	315,290	43	44,929	84	9,437
-38	3,546,481	3	298,956	44	43,073	85	9,121
-37	3,312,243	4	283,557	45	41,303	86	8,816
-36	3,094,866	5	269,036	46	39,615	87	8,523
-35	2,893,041	6	255,337	47	38,004	88	8,241
-34	2,705,570	7	242,410	48	36,467	89	7,970
-33	2,531,351	8	230,207	49	35,000	90	7,708
-32	2,369,375	9	218,685	50	33,599	91	7,457
-31	2,218,714	10	207,801	51	32,262	92	7,215
-30	2,078,515	11	197,518	52	30,984	93	6,982
-29	1,947,995	12	187,800	53	29,763	94	6,758
-28	1,826,432	13	178,611	54	28,596	95	6,541
-27	1,713,162	14	169,921	55	27,481	96	6,333
-26	1,607,574	15	161,701	56	26,415	97	6,132
-25	1,509,106	16	153,922	57	25,395	98	5,939
-24	1,417,239	17	146,559	58	24,420	99	5,753
-23	1,331,495	18	139,587	59	23,487	100	5,573
-22	1,251,431	19	132,983	60	22,594	101	5,400
-21	1,176,643	20	126,727	61	21,740	102	5,232
-20	1,106,752	21	120,799	62	20,922	103	5,071
-19	1,041,413	22	115,179	63	20,138	104	4,916
-18	980,305	23	109,850	64	19,388	105	4,766
-17	923,131	24	104,795	65	18,670	106	4,621
-16	869,616	25	100,000	66	17,981	107	4,481
-15	819,508	26	95,449	67	17,322	108	4,346
-14	772,570	27	91,129	68	16,689	109	4,216
-13	728,587	28	87,027	69	16,083	110	4,090
-12	687,355	29	83,131	70	15,502	111	3,969
-11	648,689	30	79,430	71	14,945	112	3,852
-10	612,416	31	75,913	72	14,410	113	3,738
-9	578,374	32	72,569	73	13,897	114	3,629
-8	546,415	33	69,390	74	13,405	115	3,523
-7	516,401	34	66,367	75	12,932	116	3,421
-6	488,202	35	63,491	76	12,478	117	3,322
-5	461,700	36	60,754	77	12,043	118	3,227
-4	436,784	37	58,150	78	11,625	119	3,134
-3	413,350	38	55,670	79	11,223	120	3,045
-2	391,304	39	53,309	80	10,837	121	2,959
-1	370,555	40	51,060	81	10,466	122	2,875
0	351,020	41	48,917	82	10,109	123	2,794
						124	2,716
						125	2,640

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Thermistor Probe

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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