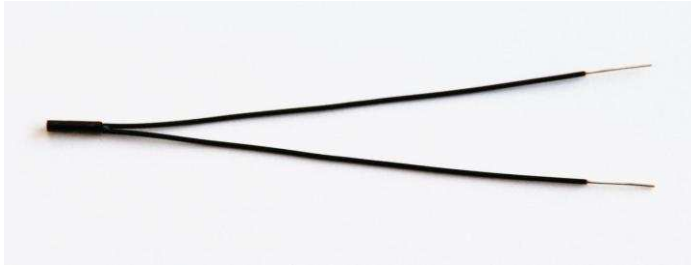


# Mini BetaCURVE Thermistor Probe (MBD)



- NTC Temperature Sensor
- Fast time response
- Small tip diameter
- Various lead lengths available

## DESCRIPTION

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  
( $0^\circ\text{C}$  to  $+70^\circ\text{C}$ ).  
Custom tolerances available on request  
Temperature range  $-40^\circ\text{C}$  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 $0^\circ\text{C}$ to $+70^\circ\text{C}$	$^\circ\text{C}$	$\pm 0.2$
Alpha Value at $+25^\circ\text{C}$	$\%/^\circ\text{C}$	4.68
Beta Value 25/85	K	4261
Tolerance on Beta Value 25/85	%	$\pm 0.5$
Time response in Liquids	milliseconds	400
Dissipation Constant in still air	$\text{mW}/^\circ\text{C}$	0.5

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## MECHANICAL DETAILS

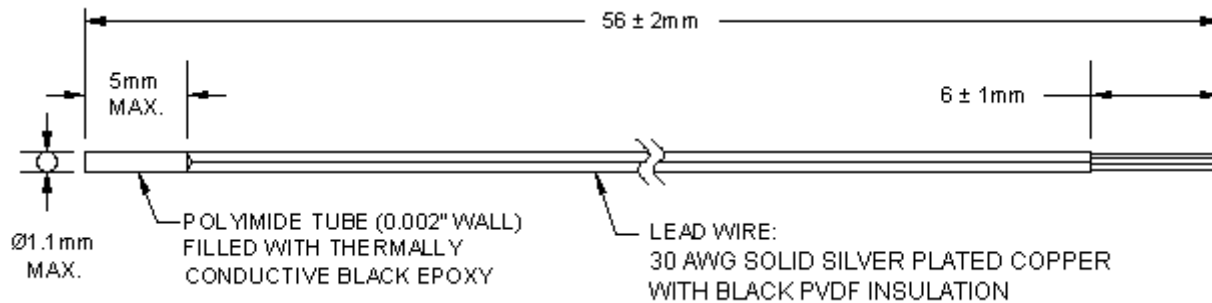


Figure 1: Mini BetaCURVE Thermistor Probe (MBD)

## RESISTANCE V TEMPERATURE TABLE

Temp. °C	Ohms	Temp. °C	Ohms	Temp. °C	Ohms	Temp. °C	Ohms
-40	4,071,370	-12	687,355	16	153,922	44	43,073
-39	3,799,004	-11	648,689	17	146,559	45	41,303
-38	3,546,481	-10	612,416	18	139,587	46	39,615
-37	3,312,243	-9	578,374	19	132,983	47	38,004
-36	3,094,866	-8	546,415	20	126,727	48	36,467
-35	2,893,041	-7	516,401	21	120,799	49	35,000
-34	2,705,570	-6	488,202	22	115,179	50	33,599
-33	2,531,351	-5	461,700	23	109,850	51	32,262
-32	2,369,375	-4	436,784	24	104,795	52	30,984
-31	2,218,714	-3	413,350	<b>25</b>	<b>100,000</b>	53	29,763
-30	2,078,515	-2	391,304	26	95,449	54	28,596
-29	1,947,995	-1	370,555	27	91,129	55	27,481
-28	1,826,432	0	351,020	28	87,027	56	26,415
-27	1,713,162	1	332,623	29	83,131	57	25,395
-26	1,607,574	2	315,290	30	79,430	58	24,420
-25	1,509,106	3	298,956	31	75,913	59	23,487
-24	1,417,239	4	283,557	32	72,569	60	22,594
-23	1,331,495	5	269,036	33	69,390	61	21,740
-22	1,251,431	6	255,337	34	66,367	62	20,922
-21	1,176,643	7	242,410	35	63,491	63	20,138
-20	1,106,752	8	230,207	36	60,754	64	19,388
-19	1,041,413	9	218,685	37	58,150	65	18,670
-18	980,305	10	207,801	38	55,670	66	17,981
-17	923,131	11	197,518	39	53,309	67	17,322
-16	869,616	12	187,800	40	51,060	68	16,689
-15	819,508	13	178,611	41	48,917	69	16,083
-14	772,570	14	169,921	42	46,875	70	15,502
-13	728,587	15	161,701	43	44,929	71	14,945

# Mini BetaCURVE Thermistor Probe (MBD)

72	14,410	86	8,816	100	5,573	114	3,629
73	13,897	87	8,523	101	5,400	115	3,523
74	13,405	88	8,241	102	5,232	116	3,421
75	12,932	89	7,970	103	5,071	117	3,322
76	12,478	90	7,708	104	4,916	118	3,227
77	12,043	91	7,457	105	4,766	119	3,134
78	11,625	92	7,215	106	4,621	120	3,045
79	11,223	93	6,982	107	4,481	121	2,959
80	10,837	94	6,758	108	4,346	122	2,875
81	10,466	95	6,541	109	4,216	123	2,794
82	10,109	96	6,333	110	4,090	124	2,716
83	9,767	97	6,132	111	3,969	125	2,640
84	9,437	98	5,939	112	3,852		
85	9,121	99	5,753	113	3,738		

## ORDERING INFORMATION

Part Number	Description	$\Omega$ @25°C	MOQ
100K6MBD1	Mini BetaCurve Thermistor Probe (MBD)	100000	1000 *

\* For quantities less than Minimum Order Quantity – contact distribution

### NORTH AMERICA

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