

MICRO-BETACHIP THERMISTOR PROBE (MCD)

SPECIFICATIONS

- NTC Temperature Sensor
- Fast time response
- Small tip diameter (Ø0.5mm Max)
- Various lead lengths available

FEATURES

- Rapid Time Constant (200 milliseconds in liquids).
- Custom tolerances available on request
- 0.3 mW/°C typ. Dissipation Constant In air at +25°C.
- Smaller than mini-BetaCURVE device.
- Temperature range -40°C to +125°C

NTC Thermistor soldered to 38 AWG Solid Nickel Bifilar with Polyester Type Insulation. Unit potted in polyimide tube using Epoxy Resin.

APPLICATIONS

- Low volume flow sensors (liquids or gases)
- Laboratory animal research.
- Peltiere (thermal cooler) temperature tracking sensors.
- Temperature control for bath showers.
- DNA research sensors.
- Medical catheters.

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PERFORMANCE SPECS

Parameters	Units	Value
Nominal Resistance at +25°C	Ohms	2000
Resistance tolerance at +25°C	°C	± 0.2
Alpha Value @ 25°C	%/°C	-3.87
Beta Value 25/85	K	3499
Tolerance on Beta Value 25/85	%	± 0.5
Time response in Liquids	milliseconds	200
Dissipation Constant in still air	mW/°C	0.3

MECHANICAL DETAILS

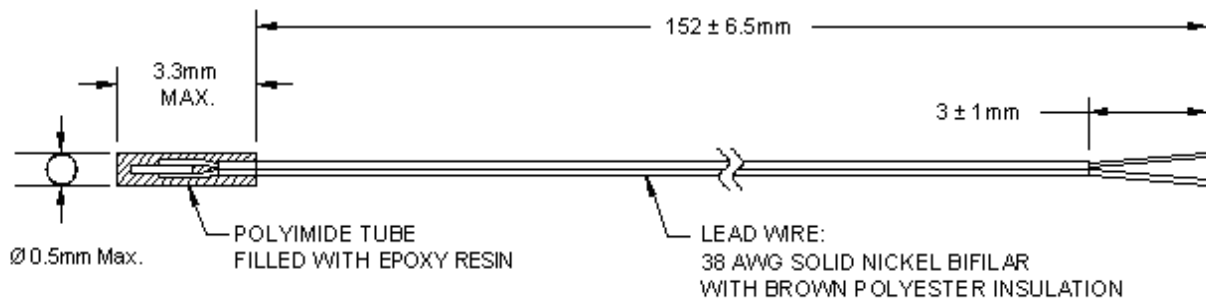


Figure 1: Micro-BetaCHIP Thermistor Probe (MCD)

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RESISTANCE V TEMPERATURE TABLE

Temp °C	Ohms
-40	43,423.1
-39	40,984.0
-38	38,697.1
-37	36,552.0
-36	34,539.1
-35	32,649.5
-34	30,874.9
-33	29,207.7
-32	27,640.8
-31	26,167.5
-30	24,781.8
-29	23,478.0
-28	22,250.6
-27	21,094.9
-26	20,006.2
-25	18,980.4
-24	18,013.3
-23	17,101.3
-22	16,241.0
-21	15,429.1
-20	14,662.7
-19	13,938.9
-18	13,255.2
-17	12,609.1
-16	11,998.3
-15	11,420.8
-14	10,874.4
-13	10,357.4
-12	9,868.1
-11	9,404.7
-10	8,965.9
-9	8,550.0
-8	8,155.9
-7	7,782.3
-6	7,427.9
-5	7,091.8
-4	6,772.8
-3	6,470.0
-2	6,182.5
-1	5,909.4
0	5,650.0
1	5,403.4

Temp °C	Ohms
2	5,169.1
3	4,946.2
4	4,734.2
5	4,532.5
6	4,340.5
7	4,157.8
8	3,983.8
9	3,818.0
10	3,660.1
11	3,509.6
12	3,366.2
13	3,229.4
14	3,098.9
15	2,974.4
16	2,855.6
17	2,742.3
18	2,634.0
19	2,530.7
20	2,431.9
21	2,337.6
22	2,247.4
23	2,161.2
24	2,078.8
25	2,000.0
26	1,924.6
27	1,852.5
28	1,783.4
29	1,717.3
30	1,654.0
31	1,593.4
32	1,535.3
33	1,479.7
34	1,426.4
35	1,375.3
36	1,326.2
37	1,279.2
38	1,234.2
39	1,190.9
40	1,149.4
41	1,109.6
42	1,071.3
43	1,034.6

Temp °C	Ohms
44	999.3
45	965.4
46	932.8
47	901.6
48	871.5
49	842.6
50	814.8
51	788.0
52	762.3
53	737.5
54	713.7
55	690.8
56	668.7
57	647.4
58	627.0
59	607.2
60	588.2
61	569.9
62	552.3
63	535.3
64	518.9
65	503.1
66	487.8
67	473.1
68	458.9
69	445.2
70	432.0
71	419.2
72	406.9
73	395.0
74	383.5
75	372.4
76	361.7
77	351.4
78	341.3
79	331.7
80	322.3
81	313.3
82	304.5
83	296.0
84	287.9
85	279.9

Temp °C	Ohms
86	272.3
87	264.9
88	257.7
89	250.7
90	244.0
91	237.5
92	231.2
93	225.1
94	219.2
95	213.4
96	207.9
97	202.5
98	197.3
99	192.2
100	187.3
101	182.5
102	177.9
103	173.4
104	169.1
105	164.9
106	160.8
107	156.8
108	153.0
109	149.2
110	145.6
111	142.1
112	138.6
113	135.3
114	132.1
115	128.9
116	125.9
117	122.9
118	120.0
119	117.2
120	114.5
121	111.9
122	109.3
123	106.8
124	104.4
125	102.0

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ORDERING INFORMATION

Part Number	Description	Ω @25°C	MOQ
2K7MCD1	Micro-BetaCHIP Thermistor Probe (MCD)	2000	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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