



HIGH HUMIDITY ENVIRONMENTS MINI PROBE (MRBD)

SPECIFICATIONS

- High degree of resistance to moisture and high humidity environments (Standard IEC 60068-2-3. Storage in Damp Heat, Air temperature @ +50°C, Relative Humidity 95% for 56 Days)
- Smaller than regular BetaCURVE Interchangeable Series
- Fast time response
- Suitable for encapsulation into small housings or special enclosures
- Various lead lengths available

NTC Thermistor soldered to 32 AWG Solid Silver Plated Copper Wire with PTFE Insulation. Unit is potted in a polyimide tube with thermally conductive epoxy.

FEATURES

- High degree of resistance to moisture and high humidity environments (Standard IEC 60068-2-3)
- 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 $+100^{\circ}\text{C}$

APPLICATIONS

- Reduced size allows localized and rapid temperature sensing
- Small Biomedical probes and catheter assemblies
- Temperature monitoring in Communication systems
- Micro-flow sensing
- Instrumentation and specialist probes

PERFORMANCE SPECS

Parameters	Units	Value
Nominal Resistance at $+25^{\circ}\text{C}$	Ohms	10000
Resistance tolerance from 0°C to $+70^{\circ}\text{C}$	$^{\circ}\text{C}$	± 0.2
Alpha Value at $+25^{\circ}\text{C}$	$\%/^{\circ}\text{C}$	- 4.39
Beta Value 25/85	K	3976
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

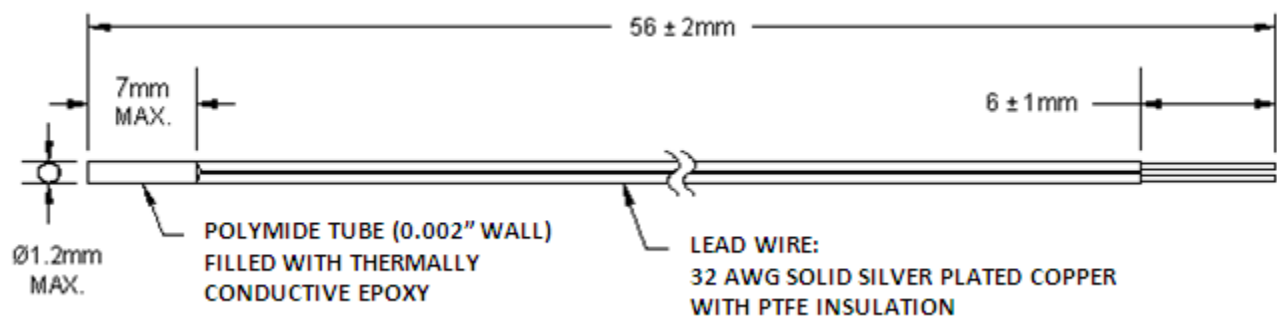


Figure 1: Mini BetaCURVE Thermistor Probe (MRBD) – High Humidity environments

RESISTANCE V TEMPERATURE TABLE

Temp. °C	Ohms	Temp. °C	Ohms	Temp. °C	Ohms	Temp. °C	Ohms
-40	336,109	-4	40,152	31	7,721	66	2,011
-39	314,563	-3	38,110	32	7,402	67	1,942
-38	294,534	-2	36,184	33	7,097	68	1,876
-37	275,905	-1	34,367	34	6,807	69	1,813
-36	258,571	0	32,651	35	6,530	70	1,752
-35	242,434	1	31,031	36	6,266	71	1,693
-34	227,404	2	29,501	37	6,014	72	1,637
-33	213,399	3	28,054	38	5,774	73	1,582
-32	200,344	4	26,688	39	5,544	74	1,530
-31	188,168	5	25,395	40	5,325	75	1,480
-30	176,807	6	24,173	41	5,116	76	1,432
-29	166,202	7	23,016	42	4,916	77	1,385
-28	156,298	8	21,921	43	4,724	78	1,341
-27	147,045	9	20,885	44	4,542	79	1,298
-26	138,396	10	19,903	45	4,367	80	1,256
-25	130,309	11	18,973	46	4,200	81	1,216
-24	122,743	12	18,092	47	4,040	82	1,178
-23	115,663	13	17,257	48	3,887	83	1,141
-22	109,034	14	16,465	49	3,741	84	1,105
-21	102,825	15	15,714	50	3,601	85	1,070
-20	97,008	16	15,001	51	3,467	86	1,037
-19	91,554	17	14,325	52	3,339	87	1,005
-18	86,440	18	13,682	53	3,216	88	974
-17	81,642	19	13,073	54	3,098	89	945
-16	77,139	20	12,493	55	2,985	90	916
-15	72,912	21	11,943	56	2,877	91	888
-14	68,941	22	11,420	57	2,773	92	862
-13	65,210	23	10,923	58	2,674	93	836
-12	61,703	24	10,450	59	2,579	94	811
-11	58,406	25	10,000	60	2,487	95	787
-10	55,304	26	9,572	61	2,399	96	764
-9	52,385	27	9,165	62	2,315	97	741
-8	49,638	28	8,777	63	2,234	98	720
-7	47,051	29	8,408	64	2,157	99	699
-6	44,614	30	8,056	65	2,082	100	678
-5	42,317						

ORDERING INFORMATION

Part Number	Description	Ω @25°C	MOQ
10K3MRBD1	Mini BetaCurve Thermistor Probe (MRBD)	10000	1000 *

* For quantities less than Minimum Order Quantity – contact distribution

NORTH AMERICA

Measurement Specialties, Inc.,
a TE Connectivity Company
910 Turnpike Road
Shrewsbury, MA 01545
Tel: 1-508-842-0516
Fax: 1-508-842-0342
Sales: temperature.cs.amer@meas-spec.com

EUROPE

Measurement Specialties (Europe), Ltd.,
a TE Connectivity Company
Ballybrit Business Park
Galway Ireland
Tel: +353-91-753238
Fax: +353-91-770789
Sales: temperature.cs.emea@meas-spec.com

ASIA

Measurement Specialties (China), Ltd.,
a TE Connectivity Company
No. 26 Langshan Road
Shenzhen High-Tech Park (North)
Nanshan District, Shenzhen 518057
China
Sales: temperature.cs.asia@meas-spec.com

TE.com/sensorsolutions

Measurement Specialties, Inc., a TE Connectivity company.

Measurement Specialties, TE Connectivity, TE Connectivity (logo) and EVERY CONNECTION COUNTS are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

© 2015 TE Connectivity Ltd. family of companies All Rights Reserved.