

Micro BetaCHIP Probe (MCD)



Introduction

The micro-BetaCHIP probe is BetaTHERM's smallest packaged thermister device. The probe is produced for applications that require rapid temperature response and applications where space is very limited. The probes are extremely small (0.457mm dia.) and fragile. The sensor is potted in a polyimide tube with epoxy. Adequate moisture protection should be provided when using the device in high humidity applications. The size of the micro-BetaCHIP thermistors allows it to be installed in 20 AWG (0.914mm dia.) thin wall hypodermic tubing. Custom probe assemblies protect the thermistor element from high humidity and mechanical shock. The small mass of the unit allows the sensor to respond very rapidly to temperature changes. This makes the micro-BetaCHIP thermister suitable for low volume gas or liquid flow sensing. The probes are also small enough to be mounted inside Medical catheters.

Applications

Low volume flow sensors (liquids or gases)

Hypodermic Probes

Peltiere (thermal cooler) temperature tracking sensors.

Temperature control for bath showers.

DNA research sensors.

Medical catheters

Features

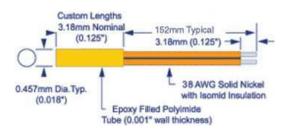
Rapid Time Constant(200milliseconds in liquids)

Custom tolerances available

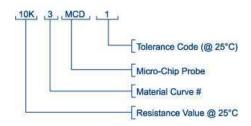
0.3 mW/C Dissipation Constant in air @25C

Smaller than our Mini-Betacurve device

Shape and Dimensions



Part Numbering System



Electrical Specifications

Part Number	Res @25C	Temp Tolerance	Alpha @ 25C	Beta Value 0/50C
2K7MCD1	2000	+/-0.2C @25C	-3.87%	3422
10K3MCD1	10000	+/-0.2C @25C	-4.39%	3892
100KMCD1	100000	+/-0.2C @25C	-4.68%	4143

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