



4400RC SERIES

Precision Epoxy NTC Thermistors

Interchangeable Thermistors – TE Connectivity (TE) provides highly accurate and stable temperature sensing for measurement, control, indication and compensation. The tight interchangeability of our precision components allows precise measurement without calibration of circuitry to match individual components.

TE offers two interchangeability tolerances $\pm 0.2^{\circ}\text{C}$ and $\pm 0.1^{\circ}\text{C}$. Choose epoxy-encapsulated components for applications where cost, flexibility and a wide range of resistance values are important.

Specifications

Time Constant

1 sec max when suspended by their leads in a well-stirred oil bath. In still air, 10 sec max.

Dissipation Constant

8mW/ $^{\circ}\text{C}$ min when suspended by their leads in a well-stirred oil bath, or 1mW/ $^{\circ}\text{C}$ in still air.

Stability

TE thermistors are chemically stable and not significantly affected by aging or exposure to strong nuclear radiation.

Resistance/Temperature Data

A $^{\circ}\text{C}$ resistance vs temperature table in 1°C increments is available on www.te.com.

Interchangeability Tolerance Data

Tables on www.te.com show nominal resistance values, ohms per degree and tolerance at select temperatures over the operating range.

Maximum Power

30mW at 25°C de-rated to zero power at 125°C

Features

- ♦ High sensitivity to detect small temperature changes
- ♦ High density ceramic sensor provides:
 - Stability
 - $\pm 0.2^{\circ}$, $\pm 0.1^{\circ}$ interchangeability

Applications

- ♦ Temperature control for DNA replication/analysis and cytology equipment
- ♦ Temperature control in photocopy machines and in photo reproduction and enlargement machines
- ♦ Temperature monitoring for telecommunications battery backup systems
- ♦ Temperature monitoring and control in clean rooms/controlled environments
- ♦ Temperature monitoring on the ocean floor
- ♦ Heater monitor/control for outdoor pool/spa
- ♦ Temperature monitoring for fruit growers

Mechanical Details



Performance Specifications

	Tolerance on Beta Value	Time Response in Air	Dissipation Constant in Air	Insulation Resistance (Min. of 100Mohms for 1 Sec.)	
	%	Seconds	mW/°C	Volts	
44001RC	0.8	< 10	1	500	
44002RC	0.8	< 10	1	500	
44003RC	1.0	< 10	1	500	
44004RC	0.8	< 10	1	500	
44005RC	0.8	< 10	1	500	
44007RC	0.8	< 10	1	500	
44016RC	0.8	< 10	1	1	500 1
44006RC	0.8	< 10	1	500	
44008RC	0.8	< 10	1	500	
44011RC	0.8	< 10	1	500	
44033RC	0.4	< 10	1	500	
44030RC	0.4	< 10	1	500	
44034RC	0.4	< 10	1	500	
44036RC	0.4	< 10	1	500	
44037RC	0.4	< 10	1	500	
44031RC	0.4	< 10	1	500	
44032RC	0.4	< 10	1	500	

Ordering Information

Parameters	Ordering Part Number	Model Number	Zero Power Resistance	Beta 0-50(K)	Ratio 25/125°	Max Working Temp.	Best Storage & Working Temp.	Mix
±0.2°C Interchangeability Tolerance 0 to 70°C	701001-M	44001RC	100	2854	11.49	100°C	-80°C to 50°C	L
	701002	44002RC	300	3118	15.15	100°C	-80°C to 50°C	L
	701003-M	44003RC	1,000	3217	17.33	100°C	-80°C to 50°C	L
	701004	44004RC	2,252	3891	29.26	150°C	-80°C to 120°C	B
	701005-M	44005RC	3,000	3891	29.26	150°C	-80°C to 120°C	B
	701007-M	44007RC	5,000	3891	29.26	150°C	-80°C to 120°C	B
	701016-M	44016RC	10,000	3891	29.26	150°C	-80°C to 120°C	B
	701006	44006RC	10,000	3574	23.51	150°C	-80°C to 120°C	B
	701008-M	44008RC	30,000	3810	29.15	150°C	-80°C to 120°C	B
	701011-M	44011RC	100,000	3988	34.82	150°C	-80°C to 120°C	B
±0.1°C Interchangeability Tolerance 0 to 70°C	701033	44033RC	2,252	3891	29.26	75°C	-80°C to 75°C	B
	701030-M	44030RC	3,000	3891	29.26	75°C	-80°C to 75°C	B
	701034-M	44034RC	5,000	3891	29.26	75°C	-80°C to 75°C	B
	701036-M	44036RC	10,000	3891	29.26	75°C	-80°C to 75°C	B
	701037-M	44037RC	6,000	3891	29.26	75°C	-80°C to 75°C	B
	701031-M	44031RC	10,000	3574	23.51	75°C	-80°C to 75°C	H
	701032	44032RC	30,000	3810	29.15	75°C	-80°C to 75°C	H

NORTH AMERICA

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