

# 44001RC Precision Epoxy NTC Thermistor



100 ohm Resistance @ 25°C  
Interchangeable  $\pm 0.2^\circ\text{C}$ ,  $0^\circ\text{C}$  to  $50^\circ\text{C}$   
Pressed Disk Ceramic Sensor  
High sensitivity  
Thermally conductive epoxy coating  
0.095" (2.4 mm) Maximum Diameter  
32 AWG, 3" (7.6 cm) long Silver plated  
copper leads  
RoHS Compliant

## DESCRIPTION

Epoxy Encapsulated Precision Interchangeable NTC Thermistor utilizing high stability pressed-disk ceramic sensor for general applications.

## FEATURES

- 100 Ohm Resistance @  $25^\circ\text{C}$
- Interchangeability
- Good Long Term Stability
- High Sensitivity
- Thermally Conductive Epoxy Coating
- RoHS Compliance

## APPLICATIONS

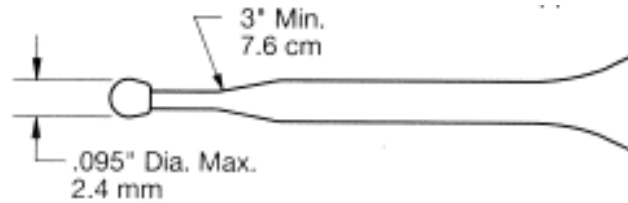
- Low Temperature Applications
- Tight Tolerance Instrumentation
- General Applications Requiring Stability
- Applications Requiring Sensing Small Changes in Temperature
- Non-condensing Moisture Environments
- Allows use in Applications World-wide

## PERFORMANCE SPECS

| Parameter                                           | Units                | Value     |
|-----------------------------------------------------|----------------------|-----------|
| Resistance @ $25^\circ\text{C}$                     | Ohms                 | 100       |
| tolerance $0^\circ\text{C}$ to $50^\circ\text{C}$   | $^\circ\text{C}$     | $\pm 0.2$ |
| Beta Value 25/85                                    | K                    | 2873      |
| Tolerance on Beta Value                             | %                    | 0.8       |
| Time response in air                                | Seconds              | < 10      |
| Dissipation Constant in air                         | mW/ $^\circ\text{C}$ | 1         |
| Insulation Resistance (Min. of 100Mohms for 1 Sec.) | Volts                | 500       |

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## MECHANICAL DETAILS



## RESISTANCE V TEMPERATURE TABLE

| Temp °C | K- Ohms | Temp °C | K- Ohms | Temp °C | K- Ohms | Temp °C | K- Ohms |
|---------|---------|---------|---------|---------|---------|---------|---------|
| -80     | 14.470  | -35     | 1.073   | 10      | 0.1659  | 55      | 0.0415  |
| -79     | 13.510  | -34     | 1.023   | 11      | 0.1601  | 56      | 0.0404  |
| -78     | 12.620  | -33     | 0.975   | 12      | 0.1546  | 57      | 0.0393  |
| -77     | 11.800  | -32     | 0.930   | 13      | 0.1493  | 58      | 0.0383  |
| -76     | 11.040  | -31     | 0.887   | 14      | 0.1442  | 59      | 0.0373  |
| -75     | 10.330  | -30     | 0.846   | 15      | 0.1394  | 60      | 0.0364  |
| -74     | 9.672   | -29     | 0.808   | 16      | 0.1347  | 61      | 0.0354  |
| -73     | 9.061   | -28     | 0.771   | 17      | 0.1302  | 62      | 0.0345  |
| -72     | 8.494   | -27     | 0.736   | 18      | 0.1259  | 63      | 0.0337  |
| -71     | 7.966   | -26     | 0.704   | 19      | 0.1217  | 64      | 0.0328  |
| -70     | 7.475   | -25     | 0.673   | 20      | 0.1177  | 65      | 0.0320  |
| -69     | 7.018   | -24     | 0.643   | 21      | 0.1139  | 66      | 0.0312  |
| -68     | 6.592   | -23     | 0.615   | 22      | 0.1102  | 67      | 0.0304  |
| -67     | 6.195   | -22     | 0.588   | 23      | 0.1067  | 68      | 0.0297  |
| -66     | 5.825   | -21     | 0.563   | 24      | 0.1033  | 69      | 0.0290  |
| -65     | 5.479   | -20     | 0.539   | 25      | 0.1000  | 70      | 0.0283  |
| -64     | 5.157   | -19     | 0.516   | 26      | 0.0969  | 71      | 0.0276  |
| -63     | 4.856   | -18     | 0.494   | 27      | 0.0938  | 72      | 0.0269  |
| -62     | 4.575   | -17     | 0.474   | 28      | 0.0909  | 73      | 0.0263  |
| -61     | 4.312   | -16     | 0.454   | 29      | 0.0881  | 74      | 0.0256  |
| -60     | 4.066   | -15     | 0.435   | 30      | 0.0854  | 75      | 0.0250  |
| -59     | 3.835   | -14     | 0.417   | 31      | 0.0828  | 76      | 0.0245  |
| -58     | 3.620   | -13     | 0.400   | 32      | 0.0803  | 77      | 0.0239  |
| -57     | 3.418   | -12     | 0.384   | 33      | 0.0778  | 78      | 0.0233  |
| -56     | 3.229   | -11     | 0.369   | 34      | 0.0755  | 79      | 0.0228  |
| -55     | 3.051   | -10     | 0.354   | 35      | 0.0732  | 80      | 0.0223  |
| -54     | 2.885   | -9      | 0.340   | 36      | 0.0711  | 81      | 0.0218  |
| -53     | 2.729   | -8      | 0.327   | 37      | 0.0690  | 82      | 0.0213  |
| -52     | 2.582   | -7      | 0.314   | 38      | 0.0670  | 83      | 0.0208  |
| -51     | 2.445   | -6      | 0.302   | 39      | 0.0650  | 84      | 0.0203  |
| -50     | 2.315   | -5      | 0.290   | 40      | 0.0631  | 85      | 0.0199  |
| -49     | 2.194   | -4      | 0.279   | 41      | 0.0613  | 86      | 0.0194  |
| -48     | 2.079   | -3      | 0.268   | 42      | 0.0596  | 87      | 0.0190  |
| -47     | 1.972   | -2      | 0.258   | 43      | 0.0579  | 88      | 0.0186  |
| -46     | 1.870   | -1      | 0.249   | 44      | 0.0562  | 89      | 0.0182  |
| -45     | 1.775   | 0       | 0.239   | 45      | 0.0547  | 90      | 0.0178  |
| -44     | 1.685   | 1       | 0.230   | 46      | 0.0531  | 91      | 0.0174  |
| -43     | 1.600   | 2       | 0.222   | 47      | 0.0517  | 92      | 0.0170  |
| -42     | 1.521   | 3       | 0.214   | 48      | 0.0502  | 93      | 0.0166  |
| -41     | 1.445   | 4       | 0.206   | 49      | 0.0489  | 94      | 0.0163  |
| -40     | 1.374   | 5       | 0.199   | 50      | 0.0475  | 95      | 0.0159  |
| -39     | 1.307   | 6       | 0.192   | 51      | 0.0462  | 96      | 0.0156  |
| -38     | 1.244   | 7       | 0.185   | 52      | 0.0450  | 97      | 0.0153  |
| -37     | 1.184   | 8       | 0.178   | 53      | 0.0438  | 98      | 0.0150  |
| -36     | 1.127   | 9       | 0.172   | 54      | 0.0426  | 99      | 0.0146  |
|         |         |         |         |         |         | 100     | 0.0143  |

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## ORDERING INFORMATION

| Part Number | Description                       | $\Omega$ @25°C | MOQ    |
|-------------|-----------------------------------|----------------|--------|
| 701001      | 44001RC,THERMISTOR,ROHS COMPLIANT | 100            | \$2000 |
| 701101      | 44001RC-BP (100 PCS),THERM,ROHS   | 100            | \$2000 |

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

### NORTH AMERICA

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