

# 55007 Precision Glass NTC Thermistor



- Excellent Long Term Stability
- Glass Hermetic Seal
- Use up to 200°C
- 5000 ohm Resistance @ 25°C
- Interchangeable  $\pm 0.2^{\circ}\text{C}$ ,  $0^{\circ}\text{C}$  to  $70^{\circ}\text{C}$ ,
- Pressed Disk Ceramic Sensor
- High sensitivity
- 0.095" (2.4 mm) Maximum Diameter
- 32 AWG, 2.5" (6.4 cm) long Gold Plated Dumet leads
- RoHS Compliant

## DESCRIPTION

Moisture-proof Hermetic Glass Encapsulated Precision Interchangeable NTC Thermistor utilizing high stability pressed-disk ceramic sensor for general applications.

## FEATURES

- Glass Hermetic Seal
- 5000 Ohm Resistance @ 25°C
- 0.095" (2.4 mm) Maximum Diameter
- Interchangeability
- Excellent High Temperature Performance
- Excellent Long Term Stability
- High Sensitivity
- RoHS Compliance

## APPLICATIONS

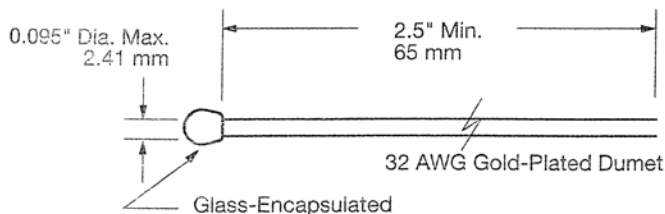
- High Moisture Applications
- Low to Mid Range Temperature Applications
- Drop in Replacement for 44000 Series Epoxy
- Tight Tolerance Instrumentation
- Use up to 200°C
- Applications Requiring Improved Stability
- Applications Requiring Sensing Small Changes in Temperature
- Allows use in Applications World-wide

## PERFORMANCE SPECS

| Parameter                                             | Units                  | Value     |
|-------------------------------------------------------|------------------------|-----------|
| Resistance @ 25°C                                     | Ohms                   | 5000      |
| Tolerance $0^{\circ}\text{C}$ to $70^{\circ}\text{C}$ | $^{\circ}\text{C}$     | $\pm 0.2$ |
| Beta Value 25/85                                      | K                      | 3978      |
| Tolerance on Beta Value                               | %                      | 0.8       |
| Time response in air                                  | Seconds                | < 15      |
| Dissipation Constant in air                           | mW/ $^{\circ}\text{C}$ | 1.5       |
| 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 | Temp °C | K-Ohms |
|---------|---------|---------|--------|---------|--------|---------|--------|---------|--------|
| -55     | 482.200 | -15     | 36.490 | 25      | 5.000  | 65      | 1.0410 | 105     | 0.2940 |
| -54     | 447.900 | -14     | 34.500 | 26      | 4.787  | 66      | 1.0060 | 106     | 0.2857 |
| -53     | 416.300 | -13     | 32.630 | 27      | 4.583  | 67      | 0.9711 | 107     | 0.2778 |
| -52     | 387.100 | -12     | 30.880 | 28      | 4.389  | 68      | 0.9380 | 108     | 0.2701 |
| -51     | 360.200 | -11     | 29.230 | 29      | 4.204  | 69      | 0.9063 | 109     | 0.2626 |
| -50     | 335.300 | -10     | 27.670 | 30      | 4.029  | 70      | 0.8757 | 110     | 0.2554 |
| -49     | 312.300 | -9      | 26.210 | 31      | 3.861  | 71      | 0.8464 | 111     | 0.2484 |
| -48     | 291.000 | -8      | 24.830 | 32      | 3.702  | 72      | 0.8183 | 112     | 0.2416 |
| -47     | 271.300 | -7      | 23.540 | 33      | 3.549  | 73      | 0.7912 | 113     | 0.2351 |
| -46     | 253.000 | -6      | 22.320 | 34      | 3.404  | 74      | 0.7651 | 114     | 0.2287 |
| -45     | 236.200 | -5      | 21.170 | 35      | 3.266  | 75      | 0.7400 | 115     | 0.2226 |
| -44     | 220.500 | -4      | 20.080 | 36      | 3.134  | 76      | 0.7159 | 116     | 0.2167 |
| -43     | 205.900 | -3      | 19.060 | 37      | 3.008  | 77      | 0.6927 | 117     | 0.2109 |
| -42     | 192.500 | -2      | 18.100 | 38      | 2.888  | 78      | 0.6703 | 118     | 0.2053 |
| -41     | 180.000 | -1      | 17.190 | 39      | 2.773  | 79      | 0.6488 | 119     | 0.1999 |
| -40     | 168.300 | 0       | 16.330 | 40      | 2.663  | 80      | 0.6281 | 120     | 0.1947 |
| -39     | 157.500 | 1       | 15.520 | 41      | 2.559  | 81      | 0.6082 | 121     | 0.1896 |
| -38     | 147.500 | 2       | 14.750 | 42      | 2.459  | 82      | 0.5889 | 122     | 0.1847 |
| -37     | 138.200 | 3       | 14.030 | 43      | 2.363  | 83      | 0.5704 | 123     | 0.1799 |
| -36     | 129.500 | 4       | 13.340 | 44      | 2.272  | 84      | 0.5526 | 124     | 0.1753 |
| -35     | 121.400 | 5       | 12.700 | 45      | 2.184  | 85      | 0.5354 | 125     | 0.1708 |
| -34     | 113.900 | 6       | 12.090 | 46      | 2.101  | 86      | 0.5188 | 126     | 0.1664 |
| -33     | 106.900 | 7       | 11.510 | 47      | 2.021  | 87      | 0.5028 | 127     | 0.1622 |
| -32     | 100.300 | 8       | 10.960 | 48      | 1.944  | 88      | 0.4874 | 128     | 0.1581 |
| -31     | 94.220  | 9       | 10.440 | 49      | 1.871  | 89      | 0.4726 | 129     | 0.1541 |
| -30     | 88.530  | 10      | 9.951  | 50      | 1.801  | 90      | 0.4582 | 130     | 0.1503 |
| -29     | 83.220  | 11      | 9.486  | 51      | 1.734  | 91      | 0.4444 | 131     | 0.1465 |
| -28     | 78.260  | 12      | 9.046  | 52      | 1.670  | 92      | 0.4310 | 132     | 0.1429 |
| -27     | 73.620  | 13      | 8.628  | 53      | 1.608  | 93      | 0.4182 | 133     | 0.1394 |
| -26     | 69.290  | 14      | 8.232  | 54      | 1.549  | 94      | 0.4057 | 134     | 0.1360 |
| -25     | 65.240  | 15      | 7.857  | 55      | 1.493  | 95      | 0.3937 | 135     | 0.1326 |
| -24     | 61.450  | 16      | 7.500  | 56      | 1.439  | 96      | 0.3821 | 136     | 0.1294 |
| -23     | 57.900  | 17      | 7.162  | 57      | 1.387  | 97      | 0.3709 | 137     | 0.1263 |
| -22     | 54.580  | 18      | 6.841  | 58      | 1.337  | 98      | 0.3601 | 138     | 0.1232 |
| -21     | 51.470  | 19      | 6.536  | 59      | 1.290  | 99      | 0.3497 | 139     | 0.1203 |
| -20     | 48.560  | 20      | 6.247  | 60      | 1.244  | 100     | 0.3396 | 140     | 0.1174 |
| -19     | 45.830  | 21      | 5.972  | 61      | 1.200  | 101     | 0.3298 | 141     | 0.1146 |
| -18     | 43.270  | 22      | 5.710  | 62      | 1.158  | 102     | 0.3204 | 142     | 0.1119 |
| -17     | 40.860  | 23      | 5.462  | 63      | 1.117  | 103     | 0.3113 | 143     | 0.1092 |
| -16     | 38.610  | 24      | 5.225  | 64      | 1.079  | 104     | 0.3025 | 144     | 0.1067 |
|         |         |         |        |         |        |         |        | 145     | 0.1042 |
|         |         |         |        |         |        |         |        | 146     | 0.1018 |
|         |         |         |        |         |        |         |        | 147     | 0.0994 |
|         |         |         |        |         |        |         |        | 148     | 0.0971 |
|         |         |         |        |         |        |         |        | 149     | 0.0949 |
|         |         |         |        |         |        |         |        | 150     | 0.0927 |

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## ORDERING INFORMATION

| Part Number | Description                  | $\Omega$ @25°C | MOQ |
|-------------|------------------------------|----------------|-----|
| 055104      | 55007 GEM THERM              | 5,000          | 200 |
| 055304      | 55007-BP (100 PCS) GEM THERM | 5,000          | 200 |

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

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