

# 55036 Precision Glass NTC Thermistor



- Excellent Long Term Stability
- Glass Hermetic Seal
- Use up to 200°C
- 10,000 ohm Resistance @ 25°C
- Interchangeable  $\pm 0.1^\circ\text{C}$ ,  $0^\circ\text{C}$  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
- 10,000 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

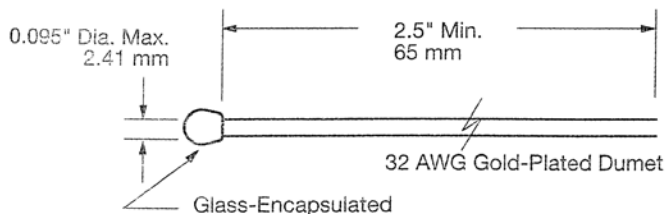
- High Moisture Applications
- Low to Mid Range Temperature Applications
- Drop in Replacement for 44000 Series Epoxy
- Tight Tolerance Instrumentation
- Use up to 200°C
- Applications Requiring Improved Stability
- Applications Requiring Sensing Small Changes in Temperature
- Allows use in Applications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

## PERFORMANCE SPECS

| Parameter                                           | Units                | Value     |
|-----------------------------------------------------|----------------------|-----------|
| Resistance @ 25°C                                   | Ohms                 | 10,000    |
| Tolerance $0^\circ\text{C}$ to $70^\circ\text{C}$   | $^\circ\text{C}$     | $\pm 0.1$ |
| Beta Value 25/85                                    | K                    | 3978      |
| Tolerance on Beta Value                             | %                    | 0.4       |
| 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     | 964.000 | -15     | 72.960 | 25      | 10.000 | 65      | 2.0830 | 105     | 0.5875 |
| -54     | 895.600 | -14     | 69.010 | 26      | 9.574  | 66      | 2.0110 | 106     | 0.5710 |
| -53     | 832.100 | -13     | 65.280 | 27      | 9.165  | 67      | 1.9420 | 107     | 0.5551 |
| -52     | 774.000 | -12     | 61.770 | 28      | 8.779  | 68      | 1.8760 | 108     | 0.5400 |
| -51     | 720.200 | -11     | 58.440 | 29      | 8.410  | 69      | 1.8130 | 109     | 0.5249 |
| -50     | 670.500 | -10     | 55.330 | 30      | 8.060  | 70      | 1.7520 | 110     | 0.5107 |
| -49     | 624.300 | -9      | 52.440 | 31      | 7.722  | 71      | 1.6930 | 111     | 0.4964 |
| -48     | 581.700 | -8      | 49.690 | 32      | 7.402  | 72      | 1.6360 | 112     | 0.4831 |
| -47     | 542.200 | -7      | 47.070 | 33      | 7.100  | 73      | 1.5820 | 113     | 0.4698 |
| -46     | 505.800 | -6      | 44.630 | 34      | 6.807  | 74      | 1.5300 | 114     | 0.4574 |
| -45     | 472.000 | -5      | 42.340 | 35      | 6.532  | 75      | 1.4790 | 115     | 0.4449 |
| -44     | 440.800 | -4      | 40.170 | 36      | 6.270  | 76      | 1.4310 | 116     | 0.4334 |
| -43     | 411.700 | -3      | 38.130 | 37      | 6.017  | 77      | 1.3850 | 117     | 0.4218 |
| -42     | 384.800 | -2      | 36.190 | 38      | 5.777  | 78      | 1.3400 | 118     | 0.4107 |
| -41     | 359.800 | -1      | 34.370 | 39      | 5.546  | 79      | 1.2970 | 119     | 0.3996 |
| -40     | 336.500 | 0       | 32.660 | 40      | 5.329  | 80      | 1.2550 | 120     | 0.3894 |
| -39     | 315.000 | 1       | 31.030 | 41      | 5.116  | 81      | 1.2150 | 121     | 0.3792 |
| -38     | 294.900 | 2       | 29.500 | 42      | 4.916  | 82      | 1.1770 | 122     | 0.3694 |
| -37     | 276.200 | 3       | 28.060 | 43      | 4.725  | 83      | 1.1400 | 123     | 0.3601 |
| -36     | 258.900 | 4       | 26.690 | 44      | 4.543  | 84      | 1.1040 | 124     | 0.3508 |
| -35     | 242.700 | 5       | 25.400 | 45      | 4.369  | 85      | 1.0700 | 125     | 0.3419 |
| -34     | 227.700 | 6       | 24.170 | 46      | 4.202  | 86      | 1.0360 | 126     | 0.3330 |
| -33     | 213.600 | 7       | 23.020 | 47      | 4.042  | 87      | 1.0040 | 127     | 0.3246 |
| -32     | 200.600 | 8       | 21.920 | 48      | 3.889  | 88      | 0.9738 | 128     | 0.3166 |
| -31     | 188.400 | 9       | 20.880 | 49      | 3.743  | 89      | 0.9441 | 129     | 0.3086 |
| -30     | 177.000 | 10      | 19.900 | 50      | 3.603  | 90      | 0.9152 | 130     | 0.3011 |
| -29     | 166.400 | 11      | 18.970 | 51      | 3.469  | 91      | 0.8877 | 131     | 0.2935 |
| -28     | 156.500 | 12      | 18.090 | 52      | 3.340  | 92      | 0.8610 | 132     | 0.2860 |
| -27     | 147.200 | 13      | 17.260 | 53      | 3.217  | 93      | 0.8353 | 133     | 0.2793 |
| -26     | 138.500 | 14      | 16.470 | 54      | 3.099  | 94      | 0.8104 | 134     | 0.2722 |
| -25     | 130.500 | 15      | 15.710 | 55      | 2.986  | 95      | 0.7864 | 135     | 0.2655 |
| -24     | 122.900 | 16      | 15.000 | 56      | 2.878  | 96      | 0.7633 | 136     | 0.2593 |
| -23     | 115.800 | 17      | 14.330 | 57      | 2.774  | 97      | 0.7411 | 137     | 0.2531 |
| -22     | 109.100 | 18      | 13.680 | 58      | 2.675  | 98      | 0.7194 | 138     | 0.2469 |
| -21     | 102.900 | 19      | 13.070 | 59      | 2.580  | 99      | 0.6985 | 139     | 0.2411 |
| -20     | 97.110  | 20      | 12.500 | 60      | 2.488  | 100     | 0.6785 | 140     | 0.2353 |
| -19     | 91.650  | 21      | 11.940 | 61      | 2.400  | 101     | 0.6590 | 141     | 0.2296 |
| -18     | 86.500  | 22      | 11.420 | 62      | 2.316  | 102     | 0.6403 | 142     | 0.2242 |
| -17     | 81.710  | 23      | 10.920 | 63      | 2.235  | 103     | 0.6221 | 143     | 0.2189 |
| -16     | 77.220  | 24      | 10.450 | 64      | 2.157  | 104     | 0.6044 | 144     | 0.2140 |
|         |         |         |        |         |        |         |        | 145     | 0.2087 |
|         |         |         |        |         |        |         |        | 146     | 0.2038 |
|         |         |         |        |         |        |         |        | 147     | 0.1994 |
|         |         |         |        |         |        |         |        | 148     | 0.1945 |
|         |         |         |        |         |        |         |        | 149     | 0.1901 |
|         |         |         |        |         |        |         |        | 150     | 0.1859 |

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## ORDERING INFORMATION

| Part Number | Description                  | $\Omega$ @25°C | MOQ |
|-------------|------------------------------|----------------|-----|
| 055114      | 55036 GEM THERM              | 10,000         | 200 |
| 055314      | 55036-BP (100 PCS) GEM THERM | 10,000         | 200 |

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

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