

# Resistance vs Temperature for Series “700” Linear Thermistors

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These tables give the resistance values for T<sup>1</sup> and T<sup>2</sup> as defined on Page F-10 for the 44018 Linear Response Thermistor which is used in the Series 700 Linear Thermistor Probes. Resistance in ohms. Temperature in °C.

| T <sup>1</sup> RESISTANCE VERSUS TEMPERATURE -30 to +100°C |         |            |         |            |        |            |       |            |       |
|------------------------------------------------------------|---------|------------|---------|------------|--------|------------|-------|------------|-------|
| TEMP°C RES                                                 |         | TEMP°C RES |         | TEMP°C RES |        | TEMP°C RES |       | TEMP°C RES |       |
| -30                                                        | 106.2K  | 0          | 19.59K  | +30        | 4834   | +60        | 1493  | +90        | 549.8 |
| 29                                                         | 99.82K  | +1         | 18.62K  | 31         | 4634   | 61         | 1440  | 91         | 533.2 |
| 28                                                         | 93.88K  | 2          | 17.70K  | 32         | 4442   | 62         | 1389  | 92         | 517.2 |
| 27                                                         | 88.32K  | 3          | 16.83K  | 33         | 4260   | 63         | 1341  | 93         | 501.8 |
| 26                                                         | 83.12K  | 4          | 16.01K  | 34         | 4084   | 64         | 1294  | 94         | 486.8 |
| 25                                                         | 78.26K  | 5          | 15.24K  | 35         | 3918   | 65         | 1249  | 95         | 472.4 |
| 24                                                         | 73.72K  | 6          | 14.50K  | 36         | 3760   | 66         | 1207  | 96         | 458.6 |
| 23                                                         | 69.46K  | 7          | 13.81K  | 37         | 3610   | 67         | 1165  | 97         | 445.2 |
| 22                                                         | 65.48K  | 8          | 13.15K  | 38         | 3466   | 68         | 1126  | 98         | 432.2 |
| 21                                                         | 61.74K  | 9          | 12.53K  | 39         | 3328   | 69         | 1087  | 99         | 419.6 |
| -20                                                        | 58.26K  | +10        | 11.94K  | +40        | 3196   | +70        | 1051  | +100       | 407.6 |
| 19                                                         | 54.98K  | 11         | 11.38K  | 41         | 3070   | 71         | 1016  |            |       |
| 18                                                         | 51.90K  | 12         | 10.85K  | 42         | 2950   | 72         | 981.8 |            |       |
| 17                                                         | 49.02K  | 13         | 10.35K  | 43         | 2836   | 73         | 949.4 |            |       |
| 16                                                         | 46.32K  | 14         | 9878    | 44         | 2726   | 74         | 918.0 |            |       |
| 15                                                         | 43.78K  | 15         | 9428    | 45         | 2620   | 75         | 888.0 |            |       |
| 14                                                         | 41.40K  | 16         | 9000    | 46         | 2520   | 76         | 859.0 |            |       |
| 13                                                         | 39.16K  | 17         | 8594    | 47         | 2424   | 77         | 831.2 |            |       |
| 12                                                         | 37.04K  | 18         | 8210    | 48         | 2334   | 78         | 804.4 |            |       |
| 11                                                         | 35.06K  | 19         | 7844    | 49         | 2246   | 79         | 773.6 |            |       |
| -10                                                        | 33.20K  | +20        | 7496    | +50        | 2162   | +80        | 753.8 |            |       |
| 9                                                          | 31.49K  | 21         | 7166    | 51         | 2080   | 81         | 729.8 |            |       |
| 8                                                          | 29.80K  | 22         | 6852    | 52         | 2004   | 82         | 706.8 |            |       |
| 7                                                          | 28.24K  | 23         | 6554    | 53         | 1930   | 83         | 684.4 |            |       |
| 6                                                          | 26.78K  | 24         | 6270    | 54         | 1859   | 84         | 663.0 |            |       |
| 5                                                          | 25.40K  | 25         | 6000    | 55         | 1792   | 85         | 642.4 |            |       |
| 4                                                          | 24.10K  | 26         | 5744    | 56         | 1727   | 86         | 622.6 |            |       |
| 3                                                          | 22.88K  | 27         | 5500    | 57         | 1664   | 87         | 603.4 |            |       |
| 2                                                          | 21.72K  | 28         | 5266    | 58         | 1605   | 88         | 584.8 |            |       |
| -1                                                         | 20.62K  | 29         | 5046    | 59         | 1547   | 89         | 567.0 |            |       |
| T <sup>2</sup> RESISTANCE VERSUS TEMPERATURE -30 to +100°C |         |            |         |            |        |            |       |            |       |
| TEMP°C RES                                                 |         | TEMP°C RES |         | TEMP°C RES |        | TEMP°C RES |       | TEMP°C RES |       |
| -30                                                        | 481.0K  | 0          | 94.98K  | +30        | 24.27K | +60        | 7599  | +90        | 2799  |
| 29                                                         | 453.5K  | +1         | 90.41 K | 31         | 23.28K | 61         | 7332  | 91         | 2714  |
| 28                                                         | 427.7K  | 2          | 86.09K  | 32         | 22.33K | 62         | 7076  | 92         | 2632  |
| 27                                                         | 403.5K  | 3          | 81.99K  | 33         | 21.43K | 63         | 6830  | 93         | 2552  |
| 26                                                         | 380.9K  | 4          | 78.11 K | 34         | 20.57K | 64         | 6594  | 94         | 2476  |
| 25                                                         | 359.6K  | 5          | 74.44K  | 35         | 19.74K | 65         | 6367  | 95         | 2402  |
| 24                                                         | 339.6K  | 6          | 70.96K  | 36         | 18.96K | 66         | 6149  | 96         | 2331  |
| 23                                                         | 320.9K  | 7          | 67.66K  | 37         | 18.21K | 67         | 5940  | 97         | 2262  |
| 22                                                         | 303.3K  | 8          | 64.53K  | 38         | 17.49K | 68         | 5738  | 98         | 2195  |
| 21                                                         | 286.7K  | 9          | 61.56K  | 39         | 16.80K | 69         | 5545  | 99         | 2131  |
| -20                                                        | 271.2K  | +10        | 58.75K  | +40        | 16.15K | +70        | 5359  | +100       | 2069  |
| 19                                                         | 256.5K  | 11         | 56.07K  | 41         | 15.52K | 71         | 5180  |            |       |
| 18                                                         | 242.8K  | 12         | 53.54K  | 42         | 14.92K | 72         | 5007  |            |       |
| 17                                                         | 229.8K  | 13         | 51.13K  | 43         | 14.35K | 73         | 4842  |            |       |
| 16                                                         | 217.6K  | 14         | 48.84K  | 44         | 13.80K | 74         | 4682  |            |       |
| 15                                                         | 206.2K  | 15         | 46.67K  | 45         | 13.28K | 75         | 4529  |            |       |
| 14                                                         | 195.4K  | 16         | 44.60K  | 46         | 12.77K | 76         | 4381  |            |       |
| 13                                                         | 185.2K  | 17         | 42.64K  | 47         | 12.29K | 77         | 4239  |            |       |
| 12                                                         | 175.6K  | 18         | 40.77K  | 48         | 11.83K | 78         | 4102  |            |       |
| 11                                                         | 166.6K  | 19         | 38.99K  | 49         | 11.39K | 79         | 3970  |            |       |
| -10                                                        | 158.0K  | +20        | 37.30K  | +50        | 10.97K | +80        | 3843  |            |       |
| 9                                                          | 150.0K  | 21         | 35.70K  | 51         | 10.57K | 81         | 3720  |            |       |
| 8                                                          | 142.4K  | 22         | 34.17K  | 52         | 10.18K | 80         | 3602  |            |       |
| 7                                                          | 135.2K  | 23         | 32.71K  | 53         | 9807   | 83         | 3489  |            |       |
| 6                                                          | 128.5K  | 24         | 31.32K  | 54         | 9450   | 84         | 3379  |            |       |
| 5                                                          | 122.1 K | 25         | 30.00K  | 55         | 9109   | 85         | 3273  |            |       |
| 4                                                          | 116.0K  | 26         | 28.74K  | 56         | 8781   | 86         | 3172  |            |       |
| 3                                                          | 110.3K  | 27         | 27.54K  | 57         | 8467   | 87         | 3073  |            |       |
| 2                                                          | 104.9K  | 28         | 26.40K  | 58         | 8166   | 88         | 2979  |            |       |
| -1                                                         | 99.80K  | 29         | 25.31 K | 59         | 7876   | 89         | 2887  |            |       |