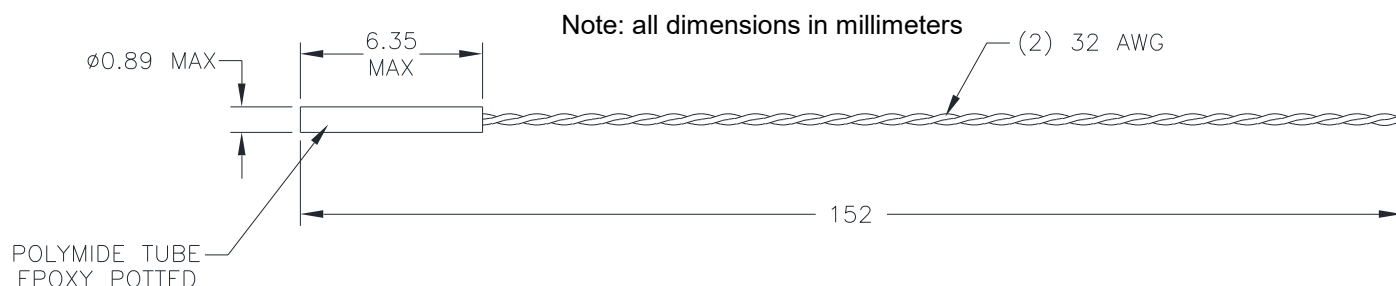
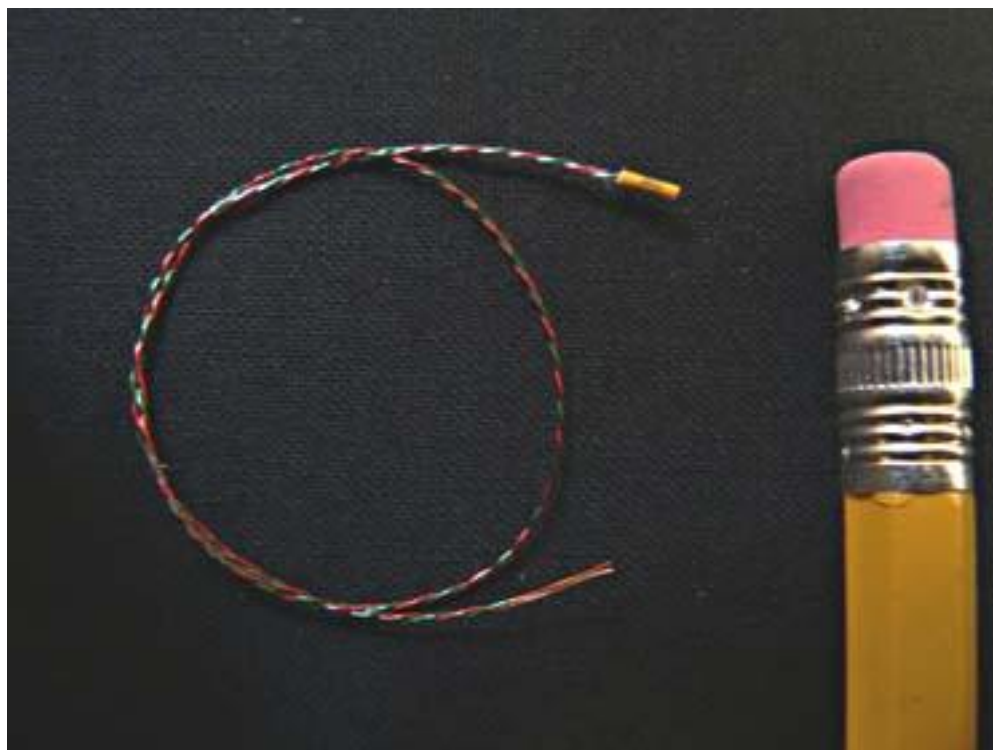


# MP-3176

## Thermistor Temperature Sensor

- NTC Thermistor / temperature sensor for measuring from -40 °C to +70 °C or -60 °C to +110 °C when used with the TC-720 or TC-720 OEM temperature controller.
- +/-1.0 °C interchangeable tolerance within -40 °C to +75 °C range.
- Sensor can be epoxied into holes for accurate measurements.
- Solid nickel wires have a lower thermal conductivity than copper, reducing influence on temperature measurements.
- Compatible with all TE Technology temperature controllers (except TC-24-10).



Wire leads are solid wire with a thin varnish insulation (similar to magnet wire). Apply appropriate protection to wire bends over sharp edges. Wires may be extended with standard copper wire of any gauge recommended for TE Technology's controllers.

**TE** TECHNOLOGY, INC.®

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# MP-3176 Thermistor Temperature Sensor

Sensor resistance at 25 °C:

5,000±225 Ω

Sensor tolerance between -40 to 70 °C:

±1.0 °C

Operating range:

-60 °C to +110 °C

Weight:

0.08 grams

| TEMPERATURE, °C | RESISTANCE, OHMS | TEMPERATURE, °C | RESISTANCE, OHMS | TEMPERATURE, °C | RESISTANCE, OHMS | TEMPERATURE, °C | RESISTANCE, OHMS |
|-----------------|------------------|-----------------|------------------|-----------------|------------------|-----------------|------------------|
| -60             | 702900           | -17             | 40860            | 26              | 4787             | 69              | 906.5            |
| -59             | 651100           | -16             | 38610            | 27              | 4583             | 70              | 875.5            |
| -58             | 603500           | -15             | 36490            | 28              | 4389             | 71              | 846.5            |
| -57             | 559700           | -14             | 34500            | 29              | 4204             | 72              | 818.5            |
| -56             | 519400           | -13             | 32630            | 30              | 4029             | 73              | 791              |
| -55             | 482200           | -12             | 30880            | 31              | 3861             | 74              | 765              |
| -54             | 447900           | -11             | 29230            | 32              | 3702             | 75              | 740              |
| -53             | 416300           | -10             | 27670            | 33              | 3549             | 76              | 716              |
| -52             | 387100           | -9              | 26210            | 34              | 3404             | 77              | 692.5            |
| -51             | 360200           | -8              | 24830            | 35              | 3266             | 78              | 670.5            |
| -50             | 335300           | -7              | 23540            | 36              | 3134             | 79              | 649              |
| -49             | 312300           | -6              | 22320            | 37              | 3008             | 80              | 628              |
| -48             | 291000           | -5              | 21170            | 38              | 2888             | 81              | 608              |
| -47             | 271300           | -4              | 20080            | 39              | 2773             | 82              | 589              |
| -46             | 253000           | -3              | 19060            | 40              | 2663             | 83              | 570.5            |
| -45             | 236200           | -2              | 18100            | 41              | 2559             | 84              | 552.5            |
| -44             | 220500           | -1              | 17190            | 42              | 2459             | 85              | 535.5            |
| -43             | 205900           | 0               | 16330            | 43              | 2363             | 86              | 519              |
| -42             | 192500           | 1               | 15520            | 44              | 2272             | 87              | 503              |
| -41             | 180000           | 2               | 14750            | 45              | 2184             | 88              | 487.5            |
| -40             | 168300           | 3               | 14030            | 46              | 2101             | 89              | 472.6            |
| -39             | 157500           | 4               | 13340            | 47              | 2021             | 90              | 458.2            |
| -38             | 147500           | 5               | 12700            | 48              | 1944             | 91              | 444.3            |
| -37             | 138200           | 6               | 12090            | 49              | 1871             | 92              | 431              |
| -36             | 129500           | 7               | 11510            | 50              | 1801             | 93              | 418              |
| -35             | 121400           | 8               | 10960            | 51              | 1734             | 94              | 405.6            |
| -34             | 113900           | 9               | 10440            | 52              | 1670             | 95              | 393.6            |
| -33             | 106900           | 10              | 9950             | 53              | 1608             | 96              | 382              |
| -32             | 100300           | 11              | 9485             | 54              | 1549             | 97              | 370.8            |
| -31             | 94200            | 12              | 9045             | 55              | 1493             | 98              | 360              |
| -30             | 88500            | 13              | 8630             | 56              | 1439             | 99              | 349.5            |
| -29             | 83200            | 14              | 8230             | 57              | 1387             | 100             | 339.4            |
| -28             | 78250            | 15              | 7855             | 58              | 1337             | 101             | 329.6            |
| -27             | 73600            | 16              | 7500             | 59              | 1290             | 102             | 320.2            |
| -26             | 69250            | 17              | 7160             | 60              | 1244             | 103             | 311.1            |
| -25             | 65200            | 18              | 6840             | 61              | 1200             | 104             | 302.3            |
| -24             | 61450            | 19              | 6535             | 62              | 1158             | 105             | 293.7            |
| -23             | 57900            | 20              | 6245             | 63              | 1117             | 106             | 285.5            |
| -22             | 54550            | 21              | 5970             | 64              | 1079             | 107             | 277.5            |
| -21             | 51450            | 22              | 5710             | 65              | 1041             | 108             | 269.8            |
| -20             | 48560            | 23              | 5460             | 66              | 1006             | 109             | 262.3            |
| -19             | 45830            | 24              | 5225             | 67              | 971              | 110             | 255.1            |
| -18             | 43270            | 25              | 5000             | 68              | 938              |                 |                  |

Please review the product manual: [Thermoelectric Temperature Controller Sensor Attachment with Notes on Thermocouples](#), FAQ's and related technical information, and ordering information posted on our web site before purchasing or using this product. When used in conjunction with a Peltier-Thermoelectric Cooler Assembly or Module, please review the [Thermoelectric Cooling Assembly \(TCA\) Instruction Manual](#) or [TEM \(Thermoelectric Module\) Mounting Procedure](#). When used in conjunction with a temperature controller, please review the temperature controller manual. These manuals contain general information, guidelines, and precautions for thermoelectric cooling and control applications.

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