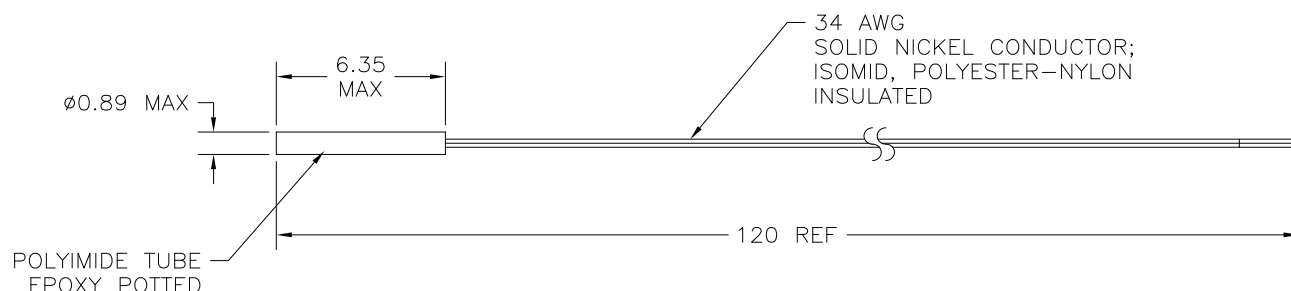
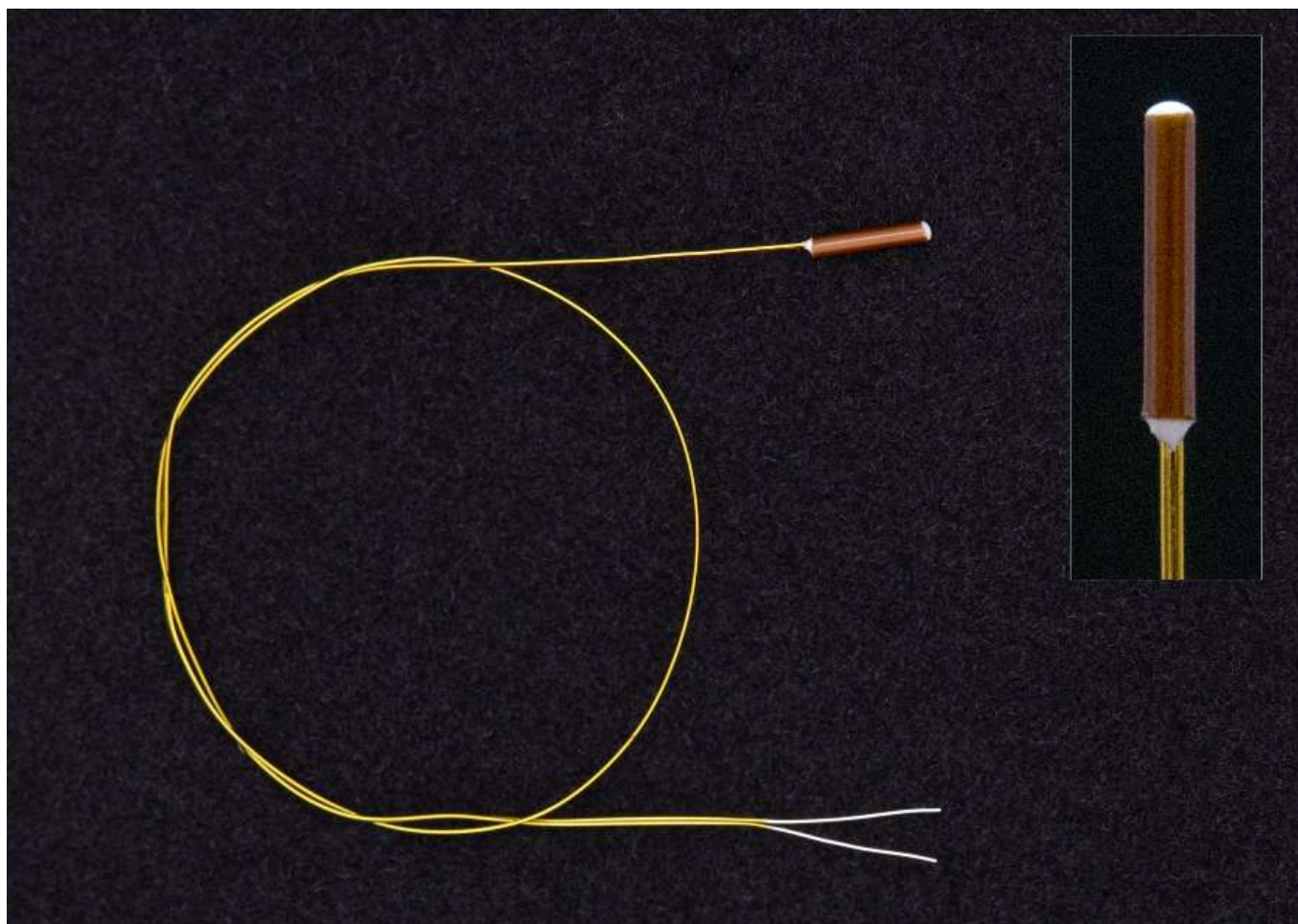


# MP-4049

## Thermistor Temperature Sensor

- NTC Thermistor / temperature sensor for measuring from -20 °C to +100 °C with a 15K ohm resistance at 25 °C; +/-1.0 °C interchangeable tolerance within 0 °C to +70 °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.



Wire leads may be extended with standard copper wire of any gauge recommended for TE Technology's controllers. Apply appropriate protection to wire bends over sharp edges. All dimensions in mm.

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*Quality Thermal Solutions Delivered*

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# MP-4049 Thermistor Temperature Sensor

Sensor resistance at 25 °C:

15,000±650 Ω

Sensor tolerance between 0 ° to 70 °C:

±1.0 °C

Operating range:

-20 °C to +100 °C

Weight:

0.08 grams

| TEMPERATURE, °C | RESISTANCE, OHMS | TEMPERATURE, °C | RESISTANCE, OHMS | TEMPERATURE, °C | RESISTANCE, OHMS |
|-----------------|------------------|-----------------|------------------|-----------------|------------------|
| -20             | 146735           | 21              | 17923            | 61              | 3590             |
| -19             | 138447           | 22              | 17136            | 62              | 3464             |
| -18             | 130677           | 23              | 16388            | 63              | 3343             |
| -17             | 123390           | 24              | 15676            | 64              | 3227             |
| -16             | 116554           | 25              | 15000            | 65              | 3115             |
| -15             | 110138           | 26              | 14356            | 66              | 3008             |
| -14             | 104113           | 27              | 13744            | 67              | 2905             |
| -13             | 98454            | 28              | 13161            | 68              | 2806             |
| -12             | 93137            | 29              | 12606            | 69              | 2711             |
| -11             | 88138            | 30              | 12078            | 70              | 2620             |
| -10             | 83438            | 31              | 11574            | 71              | 2532             |
| -9              | 79016            | 32              | 11095            | 72              | 2448             |
| -8              | 74855            | 33              | 10637            | 73              | 2367             |
| -7              | 70938            | 34              | 10202            | 74              | 2288             |
| -6              | 67249            | 35              | 9786             | 75              | 2213             |
| -5              | 63773            | 36              | 9389             | 76              | 2141             |
| -4              | 60498            | 37              | 9011             | 77              | 2072             |
| -3              | 57410            | 38              | 8650             | 78              | 2005             |
| -2              | 54498            | 39              | 8306             | 79              | 1940             |
| -1              | 51750            | 40              | 7976             | 80              | 1878             |
| 0               | 49157            | 41              | 7662             | 81              | 1818             |
| 1               | 46709            | 42              | 7362             | 82              | 1761             |
| 2               | 44397            | 43              | 7075             | 83              | 1705             |
| 3               | 42213            | 44              | 6801             | 84              | 1652             |
| 4               | 40150            | 45              | 6539             | 85              | 1601             |
| 5               | 38199            | 46              | 6289             | 86              | 1551             |
| 6               | 36354            | 47              | 6049             | 87              | 1503             |
| 7               | 34608            | 48              | 5820             | 88              | 1457             |
| 8               | 32957            | 49              | 5600             | 89              | 1412             |
| 9               | 31394            | 50              | 5391             | 90              | 1369             |
| 10              | 29914            | 51              | 5190             | 91              | 1328             |
| 11              | 28512            | 52              | 4997             | 92              | 1288             |
| 12              | 27183            | 53              | 4813             | 93              | 1250             |
| 13              | 25925            | 54              | 4637             | 94              | 1212             |
| 14              | 24731            | 55              | 4467             | 95              | 1176             |
| 15              | 23600            | 56              | 4305             | 96              | 1142             |
| 16              | 22526            | 57              | 4150             | 97              | 1108             |
| 17              | 21508            | 58              | 4001             | 98              | 1076             |
| 18              | 20541            | 59              | 3858             | 99              | 1045             |
| 19              | 19623            | 60              | 3721             | 100             | 1014             |
| 20              | 18751            |                 |                  |                 |                  |

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.

FINAL DETERMINATION OF THE SUITABILITY OF THE PRODUCT IS THE SOLE RESPONSIBILITY OF THE USER. TE TECHNOLOGY MAKES NO WARRANTY, REPRESENTATION OR GUARANTEE REGARDING THE SUITABILITY, NOR DOES TE TECHNOLOGY ASSUME ANY LIABILITY RESULTING FROM USE AND SPECIFICALLY DISCLAIMS ANY AND ALL LIABILITY, INCLUDING WITHOUT LIMITATION CONSEQUENTIAL OR INCIDENTAL DAMAGES.

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NOTE: All specifications are subject to change without notice.

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