

# Flange Mounted Stainless Steel Probe



- NTC Temperature Sensor
- Fixed depth immersion probe
- Various lead lengths available
- Various SS tube lengths available
- Various Flange mount sizes available
- RoHS Compliant

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## DESCRIPTION

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NTC Thermistor bead is soldered to extension wires. Unit is potted in a Mylar tube. The device is potted in a Stainless steel housing using Black Stycast epoxy.

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## FEATURES

- Fixed depth immersion probe.
- Custom temperature tolerances available.
- Available in a range of R/T curves.
- Various lead length/lead type available.
- Flexible design dimensions to accommodate customer requirements.
- Temperature range -40 °C to +105°C

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## APPLICATIONS

- Air duct sensor
- Ambient temp sensor

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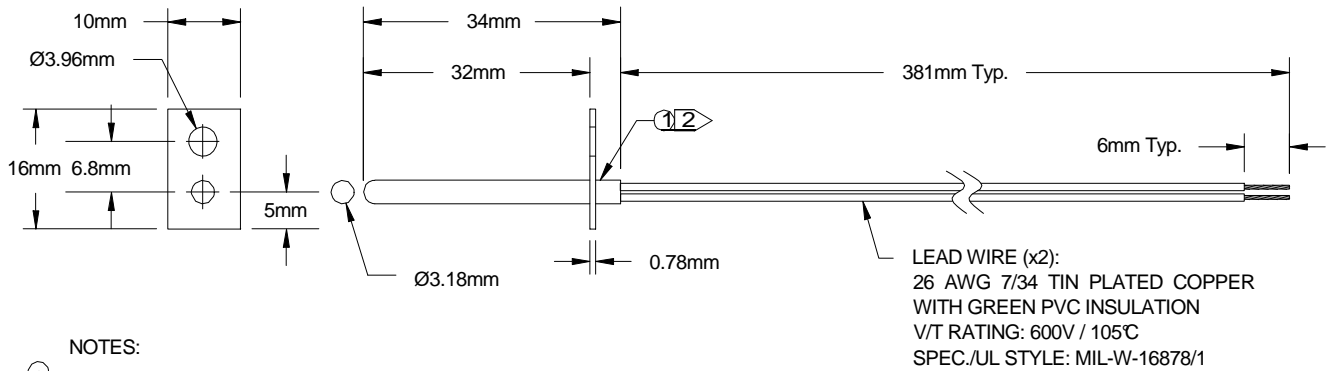
## PERFORMANCE SPECS

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| Parameters                             | Units   | Value  |
|--|---------|--------|
| Resistance @ +25°C                     | Ohms    | 10,000 |
| Resistance tolerance from 0°C to +70°C | °C      | ± 1.0  |
| Beta Value 25/85                       | K       | 3976   |
| Tolerance on Beta Value 25/85          | %       | ± 0.5  |
| Time response in Liquids               | Seconds | <5     |

# Flange Mounted Stainless Steel Probe

## MECHANICAL DETAILS



- NOTES:
- ① HOUSING: (0.3.18mm OD x 2.72mm ID) + FLANGE, 316 STAINLESS STEEL
  - ② ENCAPSULATION: THERMALLY CONDUCTIVE BLACK EPOXY

Figure 1: Flange Mounted Stainless Steel Probe

## RESISTANCE V TEMPERATURE TABLE

| Temp. °C | Ohms |
|----------|------|
|----------|------|

|     |          |
|-----|----------|
| -40 | 336103.2 |
| -39 | 314558.0 |
| -38 | 294529.1 |
| -37 | 275900.8 |
| -36 | 258567.0 |
| -35 | 242430.2 |
| -34 | 227400.9 |
| -33 | 213396.6 |
| -32 | 200341.4 |
| -31 | 188165.5 |
| -30 | 176804.8 |
| -29 | 166199.8 |
| -28 | 156296.1 |
| -27 | 147043.2 |
| -26 | 138394.7 |
| -25 | 130307.6 |
| -24 | 122742.3 |
| -23 | 115662.2 |
| -22 | 109033.4 |
| -21 | 102824.6 |
| -20 | 97006.9  |
| -19 | 91553.3  |
| -18 | 86439.2  |
| -17 | 81641.4  |
| -16 | 77138.6  |

| Temp. °C | Ohms |
|----------|------|
|----------|------|

|     |         |
|-----|---------|
| -15 | 72911.1 |
| -14 | 68940.4 |
| -13 | 65209.7 |
| -12 | 61702.9 |
| -11 | 58405.5 |
| -10 | 55303.9 |
| -9  | 52385.2 |
| -8  | 49637.8 |
| -7  | 47050.6 |
| -6  | 44613.4 |
| -5  | 42316.7 |
| -4  | 40151.6 |
| -3  | 38110.0 |
| -2  | 36184.0 |
| -1  | 34366.6 |
| 0   | 32650.9 |
| 1   | 31030.8 |
| 2   | 29500.5 |
| 3   | 28054.4 |
| 4   | 26687.5 |
| 5   | 25395.0 |
| 6   | 24172.5 |
| 7   | 23015.9 |
| 8   | 21921.2 |
| 9   | 20884.7 |

| Temp. °C | Ohms |
|----------|------|
|----------|------|

|           |                |
|-----------|----------------|
| 10        | 19903.2        |
| 11        | 18973.3        |
| 12        | 18092.2        |
| 13        | 17256.9        |
| 14        | 16464.9        |
| 15        | 15713.7        |
| 16        | 15000.9        |
| 17        | 14324.5        |
| 18        | 13682.3        |
| 19        | 13072.6        |
| 20        | 12493.3        |
| 21        | 11943.0        |
| 22        | 11419.9        |
| 23        | 10922.7        |
| 24        | 10449.8        |
| <b>25</b> | <b>10000.0</b> |
| 26        | 9572.0         |
| 27        | 9164.7         |
| 28        | 8777.0         |
| 29        | 8407.7         |
| 30        | 8056.1         |
| 31        | 7721.0         |
| 32        | 7401.7         |
| 33        | 7097.3         |
| 34        | 6807.1         |

| Temp. °C | Ohms |
|----------|------|
|----------|------|

|    |        |
|----|--------|
| 35 | 6530.3 |
| 36 | 6266.2 |
| 37 | 6014.3 |
| 38 | 5773.8 |
| 39 | 5544.2 |
| 40 | 5325.0 |
| 41 | 5115.6 |
| 42 | 4915.6 |
| 43 | 4724.4 |
| 44 | 4541.7 |
| 45 | 4367.0 |
| 46 | 4200.0 |
| 47 | 4040.2 |
| 48 | 3887.4 |
| 49 | 3741.1 |
| 50 | 3601.1 |
| 51 | 3467.0 |
| 52 | 3338.7 |
| 53 | 3215.8 |
| 54 | 3098.0 |
| 55 | 2985.2 |
| 56 | 2877.0 |
| 57 | 2773.3 |
| 58 | 2673.9 |
| 59 | 2578.6 |

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|    |        |    |        |    |        |     |       |
|----|--------|----|--------|----|--------|-----|-------|
| 60 | 2487.1 | 72 | 1636.6 | 84 | 1104.9 | 96  | 763.6 |
| 61 | 2399.4 | 73 | 1582.4 | 85 | 1070.5 | 97  | 741.2 |
| 62 | 2315.2 | 74 | 1530.2 | 86 | 1037.3 | 98  | 719.6 |
| 63 | 2234.4 | 75 | 1480.1 | 87 | 1005.3 | 99  | 698.6 |
| 64 | 2156.8 | 76 | 1431.8 | 88 | 974.4  | 100 | 678.4 |
| 65 | 2082.3 | 77 | 1385.3 | 89 | 944.7  | 101 | 658.9 |
| 66 | 2010.8 | 78 | 1340.6 | 90 | 916.0  | 102 | 640.0 |
| 67 | 1942.1 | 79 | 1297.5 | 91 | 888.3  | 103 | 621.8 |
| 68 | 1876.0 | 80 | 1256.1 | 92 | 861.5  | 104 | 604.2 |
| 69 | 1812.6 | 81 | 1216.1 | 93 | 835.8  | 105 | 587.1 |
| 70 | 1751.6 | 82 | 1177.7 | 94 | 810.9  |     |       |
| 71 | 1693.0 | 83 | 1140.6 | 95 | 786.8  |     |       |
|    |        |    |        |    |        |     |       |
|    |        |    |        |    |        |     |       |
|    |        |    |        |    |        |     |       |
|    |        |    |        |    |        |     |       |

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