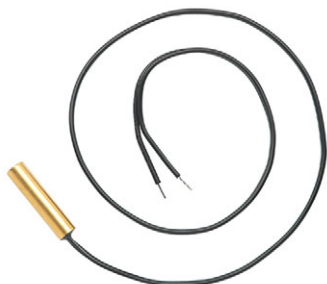


## NTC Thermistors, Special Long Lead Sensors



### LINKS TO ADDITIONAL RESOURCES



| QUICK REFERENCE DATA                                                      |             |                 |
|---------------------------------------------------------------------------|-------------|-----------------|
| PARAMETER                                                                 | VALUE       | UNIT            |
| Resistance value at 25 °C                                                 | 10K         | Ω               |
| Tolerance on $R_{25}$ -value                                              | ± 3         | %               |
| $B_{25/85}$ -value                                                        | 3984        | K               |
| Tolerance on $B_{25/85}$ -value                                           | ± 0.5       | %               |
| Dissipation factor:                                                       | 6.0         | mW/K            |
| Response time <sup>(1)</sup> :                                            | ≈ 10        | s               |
| Operating temperature range:<br>At zero dissipation (continuously)        | -40 to +105 | °C              |
| Min. dielectric withstanding voltage<br>between terminals and sensor body | 1500        | V <sub>AC</sub> |
| Weight                                                                    | 25          | g               |

#### Note

- <sup>(1)</sup> Response time in silicone oil MS 200/50. This is the time needed for the sensor to reach 63.2 % of the total temperature difference when subjected to a temperature change from 25 °C in air to 85 °C in oil

### FEATURES

- Accurate over wide temperature range
- High stability
- Excellent price / performance ratio
- High adhesive strength between PVC wire and the encapsulating lacquer
- Material categorization:  
for definitions of compliance please see [www.vishay.com/doc?99912](http://www.vishay.com/doc?99912)


**RoHS**  
COMPLIANT

### APPLICATIONS

Temperature measurement, sensing and control in remote locations and for various environmental conditions.

### DESCRIPTION

These sensors exist of a small NTC chip reflow soldered between two AWG24 UL-2651 105 °C rating 300 V wires. They are lacquered and insulated and potted into a brass pipe. The RoHS-compliant version is using lead (Pb)-free brass material.

### MARKING

UL mark on wire, no mark on body.

### PACKAGING

The thermistors are packed in cardboard boxes; each box containing 500 pieces.

### DESIGN-IN SUPPORT

- For complete curve computation, please visit:  
[www.vishay.com/en/thermistors/ntc-rt-calculator/](http://www.vishay.com/en/thermistors/ntc-rt-calculator/)
- Other wire length and wire type are available on request. The products can be provided with a connector on request with a minimum buy constraint

### MOUNTING

By soldering or clamping the wire ends, in any position. Body can be inserted or taped attached. Not intended for fluid immersed applications.

| ELECTRICAL DATA AND ORDERING INFORMATION |                         |                    |                            |                     |                                                 |                  |
|------------------------------------------|-------------------------|--------------------|----------------------------|---------------------|-------------------------------------------------|------------------|
| $R_{25}$<br>(Ω)                          | $R_{25}$ -TOL.<br>(± %) | $B_{25/85}$<br>(K) | $B_{25/85}$ -TOL.<br>(± %) | LEAD LENGTH<br>(mm) | SAP MATERIAL AND ORDERING NUMBER                |                  |
|                                          |                         |                    |                            |                     | RoHS COMPLIANT<br>WITH EXEMPTION <sup>(1)</sup> | RoHS-COMPLIANT   |
| 10 000                                   | 3                       | 3984               | 0.5                        | 1500 ± 20           | NTCAPIPE3C90105                                 | NTCAPIPE3C90105A |

#### Notes

- Preferred versions for new designs
- <sup>(1)</sup> RoHS exemption 7(c)-I: electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezo-electronic devices, or in a glass or ceramic matrix compound

| DIMENSIONS in millimeters |  |
|---------------------------|--|
| Brass-pipe type           |  |

#### Note

- L: refer to table



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