

NTC Thermistors, Standard Lug Sensors, 150 °C



FEATURES

- 150 °C long term stability (5000 h dry heat)
- Easy mounting using ring tongue terminal
- Rugged construction
- Cable with ETFE insulation according to NEMA HP-3, type Z, rated 600 V_{RMS}, cable test voltage **3.4 kV**
- AEC-Q200 qualified (grade 1)
- UL recognized, file E148885 (UL category XGPU2)
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

ADDITIONAL RESOURCES



- NTC curve computation:
www.vishay.com/thermistors/ntc-curve-list/

| QUICK REFERENCE DATA | | |
|---|--------------|-----------------|
| PARAMETER | VALUE | UNIT |
| Resistance value at 25 °C ⁽¹⁾ | 10K | Ω |
| Tolerance on R ₂₅ -value ⁽¹⁾ | ± 1 to ± 2 | % |
| B _{25/85} -value ⁽¹⁾ | 3435, 3984 | K |
| Tolerance on B _{25/85} -value | ± 0.5 to ± 1 | % |
| Operating temperature range at zero dissipation | -40 to +150 | °C |
| Min. dielectric withstanding voltage between terminals and lug | 2700 | V _{AC} |
| Min. insulation resistance between terminals and lug at 500 V _{DC} | 100 | MΩ |
| Weight | 2.0 to 3.2 | g |

Note

- ⁽¹⁾ Other R₂₅-values, B_{25/85}-values, and tolerances are available upon request

APPLICATIONS

- Suitable for surface sensing applications, especially when a good electrical insulation and a good thermal contact with the chassis is required for:
 - Automotive equipment
 - EV and battery management
 - Power electronics, heat sink
 - Consumer appliances

DESCRIPTION

A NTC thermistor chip is soldered to AWG#26 multi-stranded silver plated copper leads with ETFE insulation and insulated with epoxy coating. The insulated sensor is attached to a tin plated copper ring lug via a middle buffer layer. The lead wires are twisted.

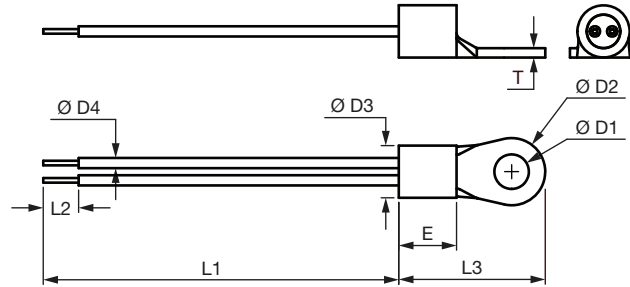
MOUNTING

- By means of M3 (stud #3, #4) or M3,5 (stud #5, #6) screw. Leads to be soldered or crimped
- The device is suitable for screwing e.g. on metal surface
- The leads are suitable for soldering e.g. on PCB
- Consult Vishay for other cable length, cable section, screw sizes, insulation, connector crimping or other features

| ELECTRICAL DATA AND ORDERING INFORMATION | | | | | | | |
|--|--------------------------------|---------------------------|-----------------------------------|------------------------|--|--|------------------------|
| R ₂₅ (Ω) | R ₂₅ -TOL. (± %) | B _{25/85} (K) | B _{25/85} -TOL. (± %) | L ₁ (mm) | DESCRIPTION | SAP MATERIAL AND ORDERING NUMBER | |
| | | | | | | RoHS COMPLIANT WITH EXEMPTION ⁽¹⁾ | RoHS COMPLIANT |
| 10 000 | 1 | 3984 | 0.5 | 150 ± 10 | NTC Lug01T 10K 1 % 3984 K 150 °C ETFE AWG26 150 mm | NTCALUG01T103F | NTCALUG01T103FA |
| 10 000 | 1 | 3435 | 1.0 | 150 ± 10 | NTC Lug01T 10K 1 % 3435 K 150 °C ETFE AWG26 150 mm | NTCALUG01T103FL | NTCALUG01T103FLA |
| 10 000 | 2 | 3984 | 0.5 | 40 ± 5 | NTC Lug01T 10K 2 % 3984 K 150 °C ETFE AWG26 40 mm | NTCALUG01T103G400 | NTCALUG01T103G400A |
| 10 000 | 2 | 3984 | 0.5 | 150 ± 10 | NTC Lug01T 10K 2 % 3984 K 150 °C ETFE AWG26 150 mm | NTCALUG01T103G | NTCALUG01T103GA |
| 10 000 | 2 | 3984 | 0.5 | 200 ± 10 | NTC Lug01T 10K 2 % 3984 K 150 °C ETFE AWG26 200 mm | NTCALUG01T103G201 | NTCALUG01T103G201A |
| 10 000 | 2 | 3984 | 0.5 | 500 ± 10 | NTC Lug01T 10K 2 % 3984 K 150 °C ETFE AWG26 500 mm | NTCALUG01T103G501 | NTCALUG01T103G501A |

Note

- ⁽¹⁾ 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


| L ₁ | L ₂ | Ø D ₁ | Ø D ₂ | Ø D ₃ | T | L ₃ | E | D ₄ |
|-----------------------------|----------------|------------------|------------------|------------------|-----|----------------|-----------|----------------|
| Refer to the ordering table | 3.8 ± 1 | 3.7 +0.2 / -0 | 7.2 ± 0.2 | 5.6 +0.3 / -0.2 | 1.0 | 15.70 ± 0.3 | 6.2 ± 0.2 | 0.93 ± 0.1 |



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