

NTC Thermistors, Lug Sensors



QUICK REFERENCE DATA	
PARAMETER	VALUE
Resistance value at 25 °C	10 kΩ
Tolerance on R_{25} - value	± 5 %
$B_{25/85}$ - value	3984
$B_{25/85}$ tolerance	± 0.5 %
Climatic Category (IEC 60539)	55/150/56
Dissipation factor ⁽¹⁾	≈ 23 mW/K
Thermal time constant ⁽¹⁾	≈ 7.5 s
Operating temperature range at: zero dissipation	- 40 °C to + 150 °C
maximum dissipation	0 °C to + 55 °C
Min. dielectric withstanding voltage between terminals and lug	1500 V _{ac} (1 s)
Insulation resistance between terminals and lug at 500 V _{DC}	min. 100 MΩ
Weight	≈ 2 g

Notes

- (1) Measured with screw mounted on an aluminium heatsink of 100 cm², thickness 1.5 mm, in still air at $T_{amb} = + 25$ °C.
- (2) Other R_{25} values based on 2381 640 0.. series are available upon request.
- (3) Other tolerances on R_{25} are available upon request
- (4) Other lead length and insulation, available on request

PACKAGING

The thermistors are packed in cardboard boxes; the smallest packaging quantity is 500 units.

MOUNTING

By means of M3 screw. Leads to be soldered or crimped.

FEATURES

- Easy mounting using ring tongue terminal
- Rugged construction
- PTFE insulation, AWG # 24
- Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC



RoHS
COMPLIANT

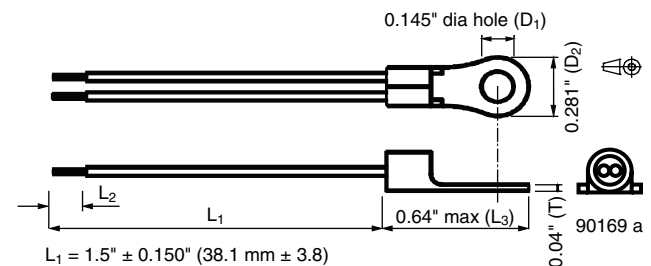
APPLICATIONS

Suitable for surface sensing applications, especially when a good electrical insulation and a good thermal contact with the chassis is required.

Thermistor with negative temperature coefficient and two stranded PTFE insulated copper leads.

The device is mounted inside the barrel of the ring tongue terminal.

DIMENSIONS in millimeters



$$L_1 = 1.5" \pm 0.150" (38.1 \text{ mm} \pm 3.8)$$

$$L_2 = 0.150" \pm 0.025" (3.81 \text{ mm} \pm 0.64)$$

$$\text{For info: } D_1 = 3.68 \text{ mm, } D_2 = 7.14 \text{ mm, } L_3 = 16.26 \text{ mm, } T = 1.016 \text{ mm}$$

Notes

- (1) The non dimensioned details do not affect the performance of the device
- (2) The device is suitable for screwing e.g. on metal surface
- (3) The device is suitable for soldering e.g. on PBC
- (4) Thermistors chip NTC with epoxy coating and middle buffer layer
- (5) Metal ring lug
- (6) Insulated leads: AWG # 24 stranded, PTFE insulation
- (7) Lead wire end twisted and then tinned

DESIGNERS TOOL

- Other resistance curves and tolerances are available on request
- Consult Vishay for other lead length, other connector crimping or other features
- 3D solid models: www.vishay.com/doc?29106
- NTC curve computation:
www.vishay.com/thermistors/curve-computation-list/

ELECTRICAL DATA AND ORDERING INFORMATION				
R_{25} (kΩ)	$B_{25/85}$ - VALUE	TCR (%/K)	12NC ORDERING CODE 2381 645	SAP MATERIAL NO. NTCALUGE2.....
10	3984K ± 0.5 %	- 4.37	90169	C90169

Note

- R_{25} - values, temperature coefficients and catalog numbers



Disclaimer

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