

## NTC Thermistors, Standard Lug Sensors



QUICK REFERENCE DATA		
PARAMETER	VALUE	UNIT
Resistance value at 25 °C <sup>(1)</sup>	10K	Ω
Tolerance on $R_{25}$ -value <sup>(1)</sup>	± 5	%
$B_{25/85}$ -value	3984	K
Tolerance on $B_{25/85}$ -value	± 0.5	%
Operating temperature range at:		
Zero dissipation	- 40 to + 150	°C
Maximum dissipation	0 to + 55	
Dissipation factor <sup>(2)</sup>	≈ 23	mW/K
Thermal time constant <sup>(2)</sup>	≈ 7.5	s
Min. dielectric withstanding voltage between terminals and lug	1500 (1 s)	V <sub>AC</sub>
Insulation resistance between terminals and lug at 500 V <sub>DC</sub>	min. 100	MΩ
Climatic category (LCT/UCT/days)	55/150/56	
Weight	≈ 2	g

### Notes

- <sup>(1)</sup> Other  $R_{25}$ -values and tolerances are available upon request  
<sup>(2)</sup> Measured with screw mounted on an aluminium heatsink of 100 cm<sup>2</sup>, thickness 1.5 mm, in still air at T<sub>amb</sub> = + 25 °C

### 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

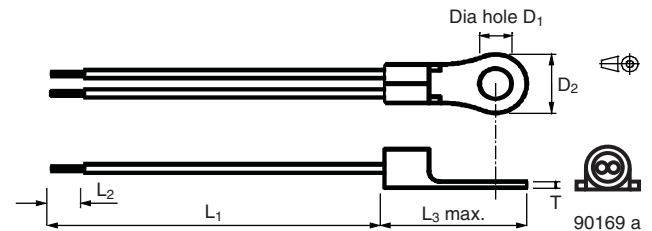


**RoHS**  
COMPLIANT

### 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



$$L_1 = 38.1 \text{ mm} \pm 3.8 \text{ mm}$$

$$L_2 = 3.81 \text{ mm} \pm 0.64 \text{ mm}$$

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

### Notes

- The device is suitable for screwing e.g. on metal surface
- The leads are suitable for soldering e.g. on PCB
- The thermistor chip NTC is epoxy coated and attached to the metal lug via a middle buffer layer
- Metal ring lug is tinned copper
- Insulated leads: AWG # 24 stranded, PTFE insulation
- Lead wire end twisted and tinned, other lead length and insulation, available on request

### 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](http://www.vishay.com/doc?29106)
- NTC curve computation: [www.vishay.com/thermistors/curve-computation-list/](http://www.vishay.com/thermistors/curve-computation-list/)

ELECTRICAL DATA AND ORDERING INFORMATION				
$R_{25}$ (kΩ)	$B_{25/85}$ -VALUE	TCR (%/K)	SAP MATERIAL AND ORDERING NUMBER NTCALUGE2.....	OLD 12NC CODE 2381 645 .....
10	3984K ± 0.5 %	- 4.37	C90169	90169



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