

## NTC Thermistors, Standard Lug Sensors



QUICK REFERENCE DATA		
PARAMETER	VALUE	UNIT
Resistance value at 25 °C <sup>(2)</sup>	4.7K to 100K	Ω
Tolerance on R <sub>25</sub> -value <sup>(2)</sup>	± 1 to ± 5	%
B <sub>25/85</sub> -value	3435 to 4190	K
Tolerance on B <sub>25/85</sub> -value	± 0.5 to ± 1.5	%
Operating temperature range at:		
Zero dissipation	-40 to +150	°C
Maximum dissipation	0 to +55	
Dissipation factor <sup>(3)</sup>	≈ 23	mW/K
Thermal time constant <sup>(3)</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)	40 / 150 / 56	
Weight	1.6	g

**Notes**

- <sup>(2)</sup> Other R<sub>25</sub>-values and tolerances are available upon request.
- <sup>(3)</sup> Measured with screw mounted on an aluminum 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
- The device is suitable for screwing e.g. on metal surface
- The leads are suitable for soldering e.g. on PCB
- Other screw sizes are available on request

**FEATURES**

- Easy mounting using ring tongue terminal
- Rugged construction
- Cable of PTFE insulation according to NEMA HP-3, type E, rated 600 V<sub>RMS</sub> <sup>(1)</sup>
- 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](http://www.vishay.com/doc?99912)



RoHS COMPLIANT

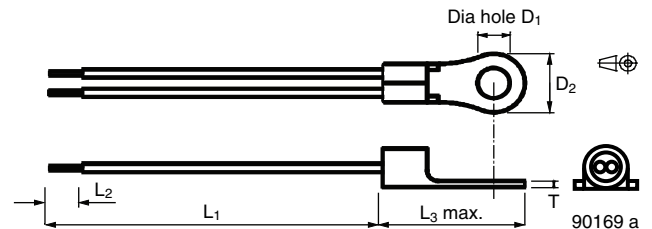
**Note**

<sup>(1)</sup> Formerly MIL-W-16878/4, type E.

**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<sub>1</sub> = 38.1 mm ± 3.8 mm  
 L<sub>2</sub> = 3.81 mm ± 0.64 mm  
 For info: D<sub>1</sub> = 3.68 mm, D<sub>2</sub> = 7.14 mm, L<sub>3</sub> = 16.26 mm, T = 1.016 mm

**Notes**

- 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, Ø 1.12 mm.
- 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						
VISHAY SAP ORDERING NUMBER	R <sub>25</sub> -VALUE (Ω)	R <sub>25</sub> TOL. (± %)	B <sub>25/85</sub> -VALUE (K)	B <sub>25/85</sub> TOL. (± %)	DESCRIPTION	UL CERTIFICATION
NTCALUG01A472H	4700	3	3984	0.5	NTC Lug01 4.7K 3 % 3984K PTFE AWG#24 38 mm	-
NTCALUG01A103FL	10 000	1	3435	1	NTC Lug01 10K 1 % 3435K PTFE AWG#24 38 mm	UL
NTCALUG01A103F	10 000	1	3984	0.5	NTC Lug01 10K 1 % 3984K PTFE AWG#24 38 mm	UL
NTCALUG01A103G	10 000	2	3984	0.5	NTC Lug01 10K 2 % 3984K PTFE AWG#24 38 mm	UL
NTCALUG01A103H	10 000	3	3984	0.5	NTC Lug01 10K 3 % 3984K PTFE AWG#24 38 mm	UL
NTCALUG01A103J <sup>(1)</sup>	10 000	5	3984	0.5	NTC Lug01 10K 5 % 3984K PTFE AWG#24 38 mm	UL
NTCALUG01A473H	47 000	3	4090	1.5	NTC Lug01 47K 3 % 4090K PTFE AWG#24 38 mm	-
NTCALUG01A104F	100 000	1	4190	1.5	NTC Lug01 100K 1 % 4190K PTFE AWG#24 38 mm	-
NTCALUG01A104G	100 000	2	4190	1.5	NTC Lug01 100K 2 % 4190K PTFE AWG#24 38 mm	-

**Note**

<sup>(1)</sup> NTCALUG01A103J identical to NTCALUGE2C90169 = 2381 645 90169.



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