

NTC Thermistors, Standard Lug Sensors



FEATURES

- Easy mounting using ring tongue terminal
- Rugged construction
- Cable of PTFE insulation according to NEMA HP-3, type E, rated 600 V_{RMS} ⁽¹⁾
- 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



RoHS COMPLIANT

Note

(1) 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.

QUICK REFERENCE DATA		
PARAMETER	VALUE	UNIT
Resistance value at 25 °C ⁽²⁾	4.7K to 100K	Ω
Tolerance on R ₂₅ -value ⁽²⁾	± 1 to ± 5	%
B _{25/85} -value	3435 to 4190	K
Tolerance on B _{25/85} -value	± 0.5 to ± 1.5	%
Operating temperature range at:		
Zero dissipation	-40 to +150	°C
Maximum dissipation	0 to +55	
Dissipation factor ⁽³⁾	≈ 23	mW/K
Thermal time constant ⁽³⁾	≈ 7.5	s
Min. dielectric withstanding voltage between terminals and lug	1500 (1 s)	V _{AC}
Insulation resistance between terminals and lug at 500 V _{DC}	min. 100	MΩ
Climatic category (LCT/UCT/days)	40/150/56	
Weight	1.6	g

Notes

- (2) Other R₂₅-values and tolerances are available upon request
 (3) Measured with screw mounted on an aluminium heatsink of 100 cm², thickness 1.5 mm, in still air at T_{amb} = +25 °C

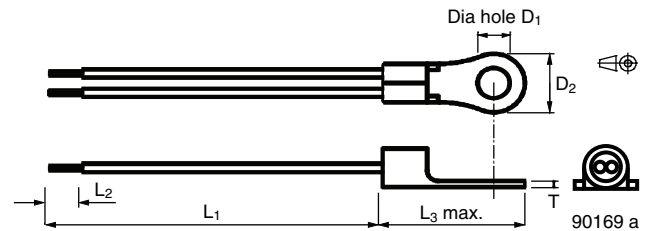
PACKAGING

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

DIMENSIONS



L₁ = 38.1 mm ± 3.8 mm
 L₂ = 3.81 mm ± 0.64 mm
 For info: D₁ = 3.68 mm, D₂ = 7.14 mm, L₃ = 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
- NTC curve computation: www.vishay.com/resistors-non-linear/curve-computation-list/



ELECTRICAL DATA AND ORDERING INFORMATION						
VISHAY SAP ORDERING NUMBER	R₂₅-VALUE (Ω)	R₂₅ TOL. (± %)	B_{25/85}-VALUE (K)	B_{25/85} 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	-
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 ⁽¹⁾	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

⁽¹⁾ NTCALUG01A103J identical to NTCALUGE2C90169 = 2381 645 90169



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