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Vishay BCcomponents

NTC Thermistors, Standard Lug Sensors





DESIGN SUPPORT TOOLS

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- SPICE models available: www.vishay.com/doc?29178
- NTC curve computation: <u>www.vishay.com/thermistors/ntc-curve-list/</u>

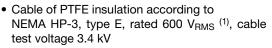
QUICK REFERENCE DATA							
PARAMETER	VALUE	UNIT					
Resistance value at 25 °C (1)	4.7K to 100K	Ω					
Tolerance on R ₂₅ -value ⁽¹⁾	± 1 to ± 5	%					
B _{25/85} -value ⁽¹⁾	3435 to 4190	K					
Tolerance on B _{25/85} -value	± 0.5 to ± 1.5	%					
Operating temperature range at:							
Zero dissipation	-40 to +150	°C					
Dissipation factor (2)	≈ 23	mW/K					
Thermal time constant (2)	≈ 7.5	s					
Min. dielectric withstanding voltage between terminals and lug	1500	V _{AC}					
Min. insulation resistance between terminals and lug at 500 V _{DC}	100	ΜΩ					
Climatic category (LCT / UCT / days)	40 / 150 / 56						
Weight	1.5 to 2.3	g					

Notes

- Other R₂₅-values, B_{25/85}-values, and tolerances are available upon request
- $^{(2)}$ Measured with screw mounted on an aluminum heatsink of 100 cm², thickness 1.5 mm, in still air at T_{amb} = +25 $^{\circ}C$

FEATURES

- Easy mounting using ring tongue terminal
- Rugged construction





RoHS

- AEC-Q200 qualified (grade 1)
- UL recognized, file E148885 (UL category XGPU2)
- Material categorization: for definitions of compliance please see <u>www.vishay.com/doc?99912</u>

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.

DESCRIPTION

A NTC thermistor chip is soldered to AWG#24 stranded copper leads with PTFE insulation and insulated with epoxy coating. The insulated sensor is attached to a tin plated copper ring lug. The lead wires are twisted and tinned.

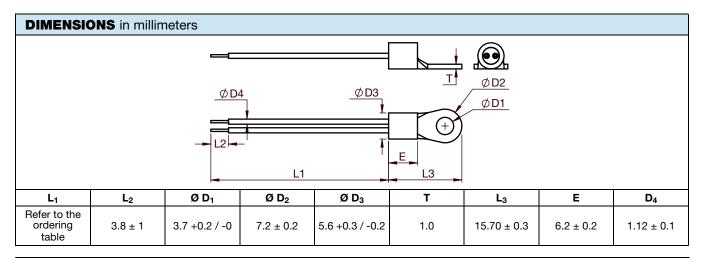
PACKAGING

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

MOUNTING

- By means of M3 (Stud 3-4) 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

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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		UL		
						with RoHS exemption ⁽²⁾	without RoHS exemption ⁽²⁾	RECOGNIZED (Y / N)		
4700	3	3984	0.5	38.1 ± 3.8	NTC Lug01 4.7K 3 % 3984K PTFE AWG#24 38 mm	NTCALUG01A472H	NTCALUG01A472HA	N		
10 000	1	3435	1	38.1 ± 3.8	NTC Lug01 10K 1 % 3435K PTFE AWG#24 38 mm	NTCALUG01A103FL	NTCALUG01A103FLA	Υ		
10 000	1	3984	0.5	38.1 ± 3.8	NTC Lug01 10K 1 % 3984K PTFE AWG#24 38 mm	NTCALUG01A103F	NTCALUG01A103FA	Y		
10 000	1	3984	0.5	80 ± 5	NTC Lug01 10K 1 % 3984K PTFE AWG#24 80 mm	NTCALUG01A103F800	NTCALUG01A103F800A	Y		
10 000	1	3435	1	80 ± 5	NTC Lug01 10K 1 % 3435K PTFE AWG#24 80 mm	NTCALUG01A103F800L	NTCALUG01A103F804A	Y		
10 000	1	3984	0.5	160 +10 / -5	NTC Lug01 10K 1 % 3984K PTFE AWG#24 160 mm	NTCALUG01A103F161	NTCALUG01A103F161A	Y		
10 000	1	3435	1	160 +10 / -5	NTC Lug01 10K 1 % 3435K PTFE AWG#24 160 mm	NTCALUG01A103F161L	NTCALUG01A103F165A	Y		
10 000	2	3984	0.5	38.1 ± 3.8	NTC Lug01 10K 2 % 3984K PTFE AWG#24 38 mm	NTCALUG01A103G	NTCALUG01A103GA	Y		
10 000	3	3984	0.5	38.1 ± 3.8	NTC Lug01 10K 3 % 3984K PTFE AWG#24 38 mm	NTCALUG01A103H	NTCALUG01A103HA	Y		
10 000	5	3984	0.5	38.1 ± 3.8	NTC Lug01 10K 5 % 3984K PTFE AWG#24 38 mm	NTCALUG01A103J (1)	NTCALUG01A103JA	Y		
47 000	3	4090	1.5	38.1 ± 3.8	NTC Lug01 47K 3 % 4090K PTFE AWG#24 38 mm	NTCALUG01A473H	NTCALUG01A473HA	N		
100 000	1	4190	1.5	38.1 ± 3.8	NTC Lug01 100K 1 % 4190K PTFE AWG#24 38 mm	NTCALUG01A104F	NTCALUG01A104FA	N		
100 000	2	4190	1.5	38.1 ± 3.8	NTC Lug01 100K 2 % 4190K PTFE AWG#24 38 mm	NTCALUG01A104G	NTCALUG01A104GA	N		

Notes

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⁽¹⁾ NTCALUG01A103J identical to NTCALUGE2C90169 = 2381 645 90169

⁽²⁾ RoHS exemption 7(c)-1: 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



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