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Vishay BCcomponents

NTC Thermistors, Standard Lug Sensors





LINKS TO ADDITIONAL RESOURCES









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:	perating 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

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

AGENCY APPROVALS

- cUL certificate XGPU8.E148885
- ULus certificate XGPU2.E148885

Note

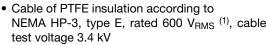
 Agency approval documents, please see: www.vishav.com/ppg?29092&documents

DESIGN-IN SUPPORT

- Other resistance curves and tolerances are available on request
- Consult Vishay for other lead length, other connector crimping, or other features
 - https://info.vishay.com/vishay-ntc-modification-request
- 3D solid models: www.vishay.com/doc?29144
- NTC curve computation: <u>www.vishay.com/thermistors/ntc-rt-calculator/</u>

FEATURES

- · Easy mounting using ring tongue terminal
- Rugged construction





• AEC-Q200 qualified (grade 1)

- cULus recognized, file E148885 (UL category XGPU2/XGPU8)
- 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 silver plated 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 stripped, twisted and dipped in a tin-silver solder alloy.

PACKAGING

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

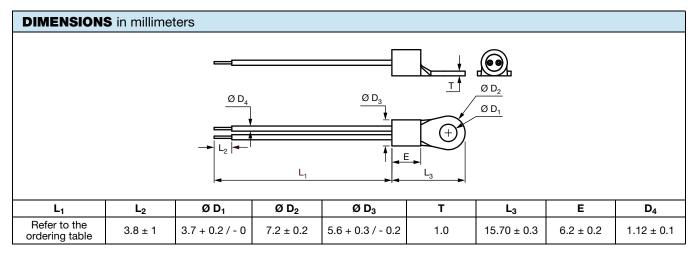
CAUTIONS AND WARNINGS ON MOUNTING AND HANDLING

Please read the special instructions: see www.vishav.com/doc?29221.

- By means of M3 (stud #3, #4) or M3,5 (stud #5, #6) 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



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ELECTRICAL DATA AND ORDERING INFORMATION									
	P		B _{25/85} -	ÖL. L1 (mm)	DESCRIPTION	UL RECOG. c	SAP MATERIAL AND ORDERING NUMBER		
	R ₂₅ - TOL. (± %)	B _{25/85} (K)	TOL. (± %)				RoHS-COMPLIANT WITH EXEMPTION (1)	RoHS-COMPLIANT	
4700	3	3984	0.5	38.1 ± 3.8	NTC Lug01 4.7K 3 % 3984K PTFE AWG#24 38 mm		NTCALUG01A472H	NTCALUG01A472HA	
10 000	1	3435	1	38.1 ± 3.8	NTC Lug01 10K 1 % 3435K PTFE AWG#24 38 mm	✓	NTCALUG01A103FL	NTCALUG01A103FLA	
10 000	1	3984	0.5	38.1 ± 3.8	NTC Lug01 10K 1 % 3984K PTFE AWG#24 38 mm	√	NTCALUG01A103F	NTCALUG01A103FA	
10 000	1	3984	0.5	80 ± 5	NTC Lug01 10K 1 % 3984K PTFE AWG#24 80 mm	√	NTCALUG01A103F800	NTCALUG01A103F800A	
10 000	1	3435	1	80 ± 5	NTC Lug01 10K 1 % 3435K PTFE AWG#24 80 mm	√	NTCALUG01A103F800L	NTCALUG01A103F804A	
10 000	1	3984	0.5	160 + 10 / - 5	NTC Lug01 10K 1 % 3984K PTFE AWG#24 160 mm	✓	NTCALUG01A103F161	NTCALUG01A103F161A	
10 000	1	3435	1	160 + 10 / - 5	NTC Lug01 10K 1 % 3435K PTFE AWG#24 160 mm	√	NTCALUG01A103F161L	NTCALUG01A103F165A	
10 000	2	3984	0.5	38.1 ± 3.8	NTC Lug01 10K 2 % 3984K PTFE AWG#24 38 mm	√	NTCALUG01A103G	NTCALUG01A103GA	
10 000	3	3984	0.5	38.1 ± 3.8	NTC Lug01 10K 3 % 3984K PTFE AWG#24 38 mm	√	NTCALUG01A103H	NTCALUG01A103HA	
10 000	5	3984	0.5	38.1 ± 3.8	NTC Lug01 10K 5 % 3984K PTFE AWG#24 38 mm	√	NTCALUG01A103J (2)	NTCALUG01A103JA	
47 000	3	4090	1.5	38.1 ± 3.8	NTC Lug01 47K 3 % 4090K PTFE AWG#24 38 mm		NTCALUG01A473H	NTCALUG01A473HA	
100 000	1	4190	1.5	38.1 ± 3.8	NTC Lug01 100K 1 % 4190K PTFE AWG#24 38 mm		NTCALUG01A104F	NTCALUG01A104FA	
100 000	2	4190	1.5	38.1 ± 3.8	NTC Lug01 100K 2 % 4190K PTFE AWG#24 38 mm		NTCALUG01A104G	NTCALUG01A104GA	

Notes

Preferred versions for new designs

⁽¹⁾ RoHS exemption 7(c)-I: 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

⁽²⁾ NTCALUG01A103J identical to NTCALUGE2C90169 = 2381 645 90169



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