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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 <sub>25</sub> -value <sup>(1)</sup>	± 1 to ± 5	%					
B <sub>25/85</sub> -value <sup>(1)</sup>	3435 to 4190	K					
Tolerance on B <sub>25/85</sub> -value	± 0.5 to ± 1.5	%					
Operating temperature range at:		°C					
Zero dissipation	-40 to +150						
Dissipation factor (2)	≈ 23	mW/K					
Thermal time constant (2)	≈ 7.5	S					
Min. dielectric withstanding voltage between terminals and lug	1500	V <sub>AC</sub>					
Min. insulation resistance between terminals and lug at 500 V <sub>DC</sub>	100	МΩ					
Climatic category (LCT / UCT / days)	40 / 150 / 56						
Weight	1.5 to 2.3	g					

#### Notes

- Other R<sub>25</sub>-values, B<sub>25/85</sub>-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  $T_{amb} = +25~^{\circ}\text{C}$

#### **AGENCY APPROVALS**

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

#### Note

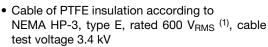
 Agency approval documents, please see: www.vishav.com/ppg?29092&documents

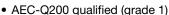
#### **DESIGN-IN SUPPORT**

- 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







 Material categorization: for definitions of compliance please see <a href="https://www.vishay.com/doc?99912"><u>www.vishay.com/doc?99912</u></a>

#### 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 <a href="https://www.vishav.com/doc?29221">www.vishav.com/doc?29221</a>.

- 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

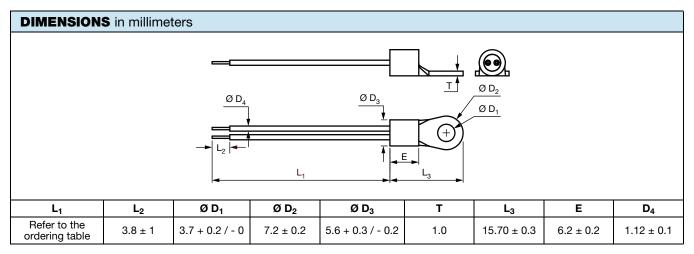








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ELECTRICAL DATA AND ORDERING INFORMATION										
	P	B <sub>25/85</sub> (K)	B <sub>25/85</sub> - TOL. (± %)	L <sub>1</sub> (mm)	DESCRIPTION	UL RECOG. c	SAP MATERIAL AND ORDERING NUMBER			
<b>R</b> <sub>25</sub> (Ω)	R <sub>25</sub> - TOL. (± %)						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	<b>√</b>	NTCALUG01A103F	NTCALUG01A103FA		
10 000	1	3984	0.5	80 ± 5	NTC Lug01 10K 1 % 3984K PTFE AWG#24 80 mm	<b>√</b>	NTCALUG01A103F800	NTCALUG01A103F800A		
10 000	1	3435	1	80 ± 5	NTC Lug01 10K 1 % 3435K PTFE AWG#24 80 mm	<b>√</b>	NTCALUG01A103F800L	NTCALUG01A103F804A		
10 000	1	3984	0.5	160 + 10 / - 5	NTC Lug01 10K 1 % 3984K PTFE AWG#24 160 mm	<b>√</b>	NTCALUG01A103F161	NTCALUG01A103F161A		
10 000	1	3435	1	160 + 10 / - 5	NTC Lug01 10K 1 % 3435K PTFE AWG#24 160 mm	<b>√</b>	NTCALUG01A103F161L	NTCALUG01A103F165A		
10 000	2	3984	0.5	38.1 ± 3.8	NTC Lug01 10K 2 % 3984K PTFE AWG#24 38 mm	<b>√</b>	NTCALUG01A103G	NTCALUG01A103GA		
10 000	3	3984	0.5	38.1 ± 3.8	NTC Lug01 10K 3 % 3984K PTFE AWG#24 38 mm	<b>√</b>	NTCALUG01A103H	NTCALUG01A103HA		
10 000	5	3984	0.5	38.1 ± 3.8	NTC Lug01 10K 5 % 3984K PTFE AWG#24 38 mm	<b>√</b>	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

<sup>(1)</sup> 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

<sup>(2)</sup> NTCALUG01A103J identical to NTCALUGE2C90169 = 2381 645 90169

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