NTC Thermistors, Standard Lug Sensors

ADDITIONAL RESOURCES

3D Models | Design Tools | SPICE Models

- NTC curve computation: www.vishay.com/thermistors/ntc-curve-list/

QUICK REFERENCE DATA		
PARAMETER	**VALUE**	**UNIT**
Resistance value at 25 °C (1)	10K	Ω
Tolerance on R_{25}-value (1)	± 2 to ± 3	%
$B_{25/85}$-value (1)	3435 to 3984	K
Tolerance on $B_{25/85}$-value	± 0.5 to ± 1	%
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	MΩ
Climatic category (LCT / UCT / days)	40 / 150 / 56	
Weight	1.6 to 4.3	g

Notes

(1) Other R_{25}-values, $B_{25/85}$-values, and tolerances are available upon request

(2) Measured with screw mounted on an aluminum heatsink of 100 cm^2, thickness 1.5 mm, in still air at T_{amb} = 25 °C

FEATURES

Pb-free Available

e4

RoHS COMPLIANT

- 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)
- cULus recognized, file E148885 (UL category XGPU2/XGPU8)
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Note

(1) Formerly MIL-W-16878/4, type E, cable test voltage 3.4 kV

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.

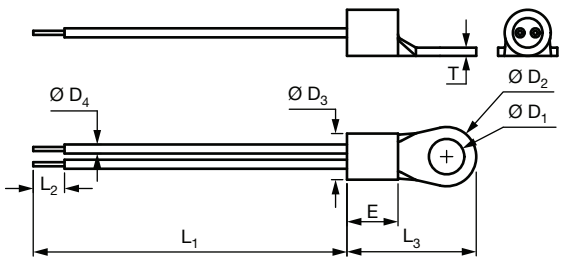
PACKAGING

The thermistors are packed in cardboard boxes.

MOUNTING

- By means of M4 (Stud #8) 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

DIMENSIONS in millimeters



L_1	L_2	Ø D_1	Ø D_2	Ø D_3	T	L_3	E	D_4
Refer to the ordering table	3.8 ± 1	4.3 + 0.2 / - 0	7.2 ± 0.2	5.6 + 0.3 / - 0.2	1.0	15.70 ± 0.3	6.2 ± 0.2	1.12 ± 0.1

ELECTRICAL DATA AND ORDERING INFORMATION

R_{25} (Ω)	R_{25}-TOL. (± %)	$B_{25/85}$ (K)	$B_{25/85}$-TOL. (± %)	L_1 (mm)	DESCRIPTION	UL REC. (Y / N)	SAP MATERIAL AND ORDERING NUMBER	
							RoHS COMPLIANT WITH EXEMPTION (1)	RoHS COMPLIANT
10 000	2	3984	0.5	38.1 ± 3.8	NTC Lug91 M4 10K 2 % 3984 K PTFE AWG#24 38 mm	Y	NTCALUG91A103G	NTCALUG91A103GA
10 000	2	3435	1	38.1 ± 3.8	NTC Lug91 M4 10K 2 % 3435 K PTFE AWG#24 38 mm	Y	NTCALUG91A103GL	NTCALUG91A103GLA
10 000	2	3984	0.5	300 +10 / -5	NTC Lug91 M4 10K 2 % 3984 K PTFE AWG#24 300 mm	Y	NTCALUG91A103G301	NTCALUG91A103G301A
10 000	3	3984	0.5	150 +10 / -5	NTC Lug91 M4 10K 3 % 3984 K PTFE AWG#24 150 mm	Y	NTCALUG91A103H151	NTCALUG91A103H151A

Note

(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

Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, “Vishay”), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay’s knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer’s responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer’s technical experts. Product specifications do not expand or otherwise modify Vishay’s terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Vishay:

NTCALUG91A103GA NTCALUG91A103GLA NTCALUG91A103H151A NTCALUG91A103G301A