www.vishay.com

NTCALUG91A M4 Series

Vishay BCcomponents

NTC Thermistors, Standard Lug Sensors



LINKS TO ADDITIONAL RESOURCES



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	к			
Tolerance on B _{25/85} -value	± 0.5 to ± 1	%			
Operating temperature range at:		ംറ			
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 $R_{\rm 25}\text{-}values,$ $B_{\rm 25/85}\text{-}values,$ 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 °C

AGENCY APPROVALS

- cUL certificate XGPU8.E148885
- ULus certificate XGPU2.E148885
- Note
- Agency approval documents, please see: www.vishav.com/ppg?29193&documents

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)
- 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, 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.

CAUTIONS AND WARNINGS ON MOUNTING AND HANDLING

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

- 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

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: <u>www.vishay.com/doc?29198</u>
- NTC curve computation: <u>www.vishay.com/thermistors/ntc-rt-calculator/</u>

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1 For technical questions, contact: <u>nlr@vishay.com</u> Document Number: 29193

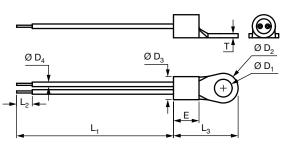


COMPLIANT



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DIMENSIONS in millimeters



L ₁	L ₂	Ø D ₁	Ø D ₂	Ø D ₃	т	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 -		· ^D 25/85	B _{25/85} -TOL.			UL RECOG.	SAP MATERIAL AND ORDERING NUMBER						
R 25 (Ω)	TOL. (± %)			L. ^{D25/85}	(± %)) (± %)	L ₁ (mm)		DESCRIPTION	DESCRIPTION			RoHS-COMPLIANT WITH EXEMPTION ⁽¹⁾
10 000	2	3984	0.5	38.1 ± 3.8	NTC Lug91 M4 10K 2 % 3984 K PTFE AWG#24 38 mm	\checkmark	NTCALUG91A103G	NTCALUG91A103GA					
10 000	2	3435	1	38.1 ± 3.8	NTC Lug91 M4 10K 2 % 3435 K PTFE AWG#24 38 mm	\checkmark	NTCALUG91A103GL	NTCALUG91A103GLA					
10 000	2	3984	0.5	300 +10 / -5	NTC Lug91 M4 10K 2 % 3984 K PTFE AWG#24 300 mm	\checkmark	NTCALUG91A103G301	NTCALUG91A103G301A					
10 000	3	3984	0.5	150 +10 / -5	NTC Lug91 M4 10K 3 % 3984 K PTFE AWG#24 150 mm	\checkmark	NTCALUG91A103H151	NTCALUG91A103H151A					

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



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