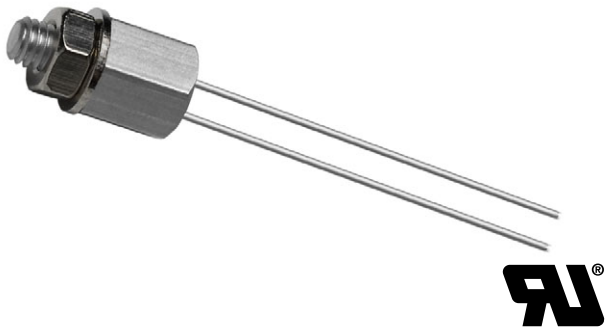
NTC Thermistors, Screw Threaded Sensors



LINKS TO ADDITIONAL RESOURCES

3D Models Design Tools

QUICK REFERENCE DATA		
PARAMETER	VALUE	UNIT
Resistance value at 25 °C	1K to 100K	Ω
Tolerance on R_{25}-value	± 1, ± 2, ± 5	%
$B_{25/85}$-value	3528 to 4190	K
Tolerance on $B_{25/85}$-value	± 0.5 to ± 1.5	%
Operating temperature range at: Zero dissipation Maximum power dissipation	 -25 to +100 0 to +55	°C
Dissipation factor (1)	≈ 23	mW/K
Maximum power dissipation	500	mW
Thermal time constant (1)	≈ 7.5	s
Min. dielectric withstanding voltage between terminals and Al case	1500	V_{AC}
Insulation resistance between terminals and Al case	min. 100	MΩ
Weight	≈ 1.5	g

Notes

- Other R_{25}-values and tolerances are available upon request
- Insulated leads available upon request

(1) 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

- Easy mounting with screw
- Rugged construction
- UL recognized, file E148885 (UL category XGPU2)
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

Pb e3 RoHS COMPLIANT

APPLICATIONS

- Temperature measurement, sensing and control
- Suitable for surface temperature applications, especially when a good electrical insulation and a good thermal contact with the chassis is required

DESCRIPTION

The thermistors are made of NTC ceramic material reflow soldered between two solid tinned copper wires or low thermal conducting 0.5 mm solid tinned nickel wires and potted in the head of passivated aluminum **(size M4)**.

PACKAGING

The thermistors are packed in cardboard boxes; the smallest packaging quantity is 100 units.

DESIGN-IN SUPPORT

Parts can be supplied without nut and washer.

For complete curve computation, visit:
www.vishay.com/thermistors/ntc-curve-list/

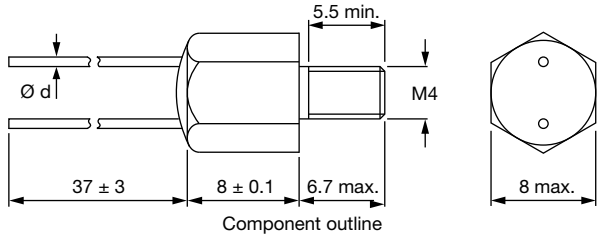
MARKING

4 digits marking indicating resistance value and tolerance in accordance with the information in Electrical Data and Ordering Information table.

MOUNTING

By means of a washer and M4 nut supplied with the device or in a threaded screw hole. Applied torque shall not exceed 1.2 Nm. Leads to be soldered or crimped.

DIMENSIONS in millimeters



Component outline

For technical questions, contact: nlr@vishay.com

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ELECTRICAL DATA AND ORDERING INFORMATION

R_{25} (Ω)	R_{25}-TOL. (± %)	$B_{25/85}$ (K)	$B_{25/85}$-TOL. (± %)	LEADS DIAMETER Ø d (mm) [1]	SAP MATERIAL AND ORDERING NUMBER	MARKING CODE
1000	5	3528	0.5	0.6	NTCASCWE3102J	102J
2200	5	3977	0.75	0.6	NTCASCWE3222J	222J
4700	1	3977	0.75	0.5	NTCASCWE3472F	472F
4700	2	3977	0.75	0.5	NTCASCWE3472G	472G
4700	5	3977	0.75	0.6	NTCASCWE3472J	472J
10 000	1	3977	0.75	0.5	NTCASCWE3103F	103F
10 000	2	3977	0.75	0.5	NTCASCWE3103G	103G
10 000	5	3977	0.75	0.6	NTCASCWE3103J	103J
15 000	5	3740	1.5	0.6	NTCASCWE3153J	153J
47 000	5	4090	1.5	0.6	NTCASCWE3473J	473J
100 000	1	4190	1.5	0.5	NTCASCWE3104F	104F
100 000	2	4190	1.5	0.5	NTCASCWE3104G	104G
100 000	5	4190	1.5	0.6	NTCASCWE3104J	104J

Note

[1] 0.6 mm leads are solid tinned copper, 0.5 mm leads are solid tinned nickel

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