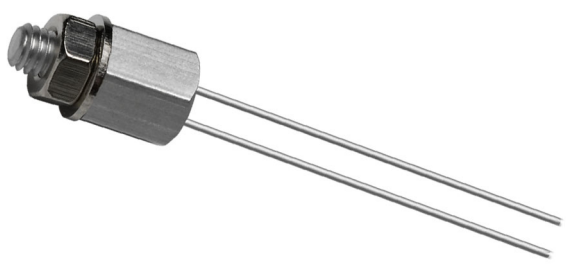
NTC Thermistors, Screw Threaded Sensors



FEATURES

- Easy mounting with screw
- Rugged construction
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912

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

QUICK REFERENCE DATA

PARAMETER	VALUE	UNIT
Resistance value at 25 °C	1K to 470K	Ω
Tolerance on R_{25}-value	± 1, ± 2, ± 5	%
$B_{25/85}$-value	3740 to 4570	K
Tolerance on $B_{25/85}$-value	± 0.5 to ± 2.5	%
Operating temperature range at: Zero dissipation Maximum power dissipation	 - 40 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 (1 s)	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 aluminium heatsink of 100 cm^2, thickness 1.5 mm, in still air at T_{amb} = + 25 °C

DESCRIPTION

The thermistors are made of NTC ceramic material reflow soldered between two solid tinned copper or nickel wires and potted in the head of passivated aluminum srew size M4.

PACKAGING

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

DESIGN IN SUPPORT

For complete Curve Computation, visit:
www.vishay.com/resistors-non-linear/curve-computation-list

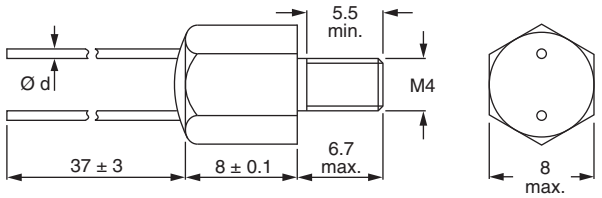
MARKING

The last 4 digits of the 12NC code are printed on the stud 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

ELECTRICAL DATA AND ORDERING INFORMATION

R_{25} (kΩ)	TOLERANCE ON R_{25}	$B_{25/85}$-VALUE	LEADS DIAMETER Ø d (mm)	TCR (%/K)	SAP MATERIAL NUMBER AND ORDERING CODE	OLD 12NC CODE
1.0	± 5 %	3528K ± 0.5 %	0.6	- 3.87	NTCASCWE3102J	2381 640 73102
2.2	± 5 %	3977K ± 0.75 %	0.6	- 4.37	NTCASCWE3222J	2381 640 73222
4.7	± 1 %	3977K ± 0.75 %	0.5	- 4.37	NTCASCWE3472F	2381 640 75472
4.7	± 2 %	3977K ± 0.75 %	0.5	- 4.37	NTCASCWE3472G	2381 640 74472
4.7	± 5 %	3977K ± 0.75 %	0.6	- 4.37	NTCASCWE3472J	2381 640 73472
10	± 1 %	3977K ± 0.75 %	0.5	- 4.37	NTCASCWE3103F	2381 640 75103
10	± 2 %	3977K ± 0.75 %	0.5	- 4.37	NTCASCWE3103G	2381 640 74103
10	± 5 %	3977K ± 0.75 %	0.6	- 4.37	NTCASCWE3103J	2381 640 73103
12	± 5 %	3740K ± 1.5 %	0.6	- 4.10	NTCASCWE3123J	2381 640 73123
15	± 5 %	3740K ± 1.5 %	0.6	- 4.10	NTCASCWE3153J	2381 640 73153
47	± 5 %	4090K ± 1.5 %	0.6	- 4.46	NTCASCWE3473J	2381 640 73473
100	± 1 %	4190K ± 1.5 %	0.5	- 4.57	NTCASCWE3104F	2381 640 75104
100	± 2 %	4190K ± 1.5 %	0.5	- 4.57	NTCASCWE3104G	2381 640 74104
100	± 5 %	4190K ± 1.5 %	0.6	- 4.57	NTCASCWE3104J	2381 640 73104
150	± 5 %	4370K ± 2.5 %	0.6	- 4.75	NTCASCWE3154J	2381 640 73154
470	± 5 %	4570K ± 2 %	0.6	- 4.95	NTCASCWE3474J	2381 640 73474

For technical questions, contact: nlr@vishay.com

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