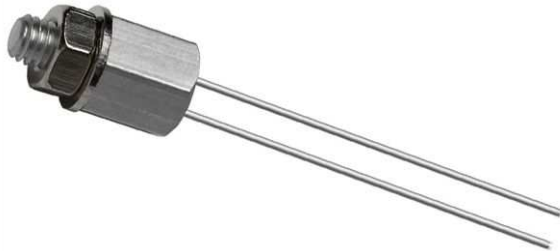


## NTC Thermistors, Screw Threaded Sensors



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	- 40 to + 100	°C
Maximum power dissipation	0 to + 55	
Dissipation factor <sup>(1)</sup>	≈ 23	mW/K
Maximum power dissipation	500	mW
Thermal time constant <sup>(1)</sup>	≈ 7.5	s
Min. dielectric withstanding voltage between terminals and Al case	1500 (1 s)	V <sub>AC</sub>
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
- <sup>(1)</sup> Measured with screw mounted on an aluminium heatsink of 100 cm<sup>2</sup>, thickness 1.5 mm, in still air at  $T_{amb} = + 25$  °C

**FEATURES**

- Easy mounting with screw
- Rugged construction
- Compliant to RoHS Directive 2002/95/EC and in accordance to WEEE 2002/96/EC



**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 or nickel wires and potted in the head of passivated aluminum screw 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](http://www.vishay.com/resistors-non-linear/curve-computation-list)

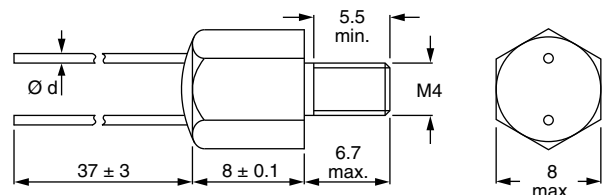
**MARKING**

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	± 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



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**Please note that some Vishay documentation may still make reference to RoHS Directive 2002/95/EC. We confirm that all the products identified as being compliant to Directive 2002/95/EC conform to Directive 2011/65/EU.**