

# **NTC Thermistors, Screw Threaded Sensors**



QUICK REFERENCE DATA						
PARAMETER	VALUE	UNIT				
Resistance value at 25 °C	1K to 470K	Ω				
Tolerance on R <sub>25</sub> -value	± 1, ± 2, ± 5	%				
B <sub>25/85</sub> -value	3528 to 4570	K				
Tolerance on B <sub>25/85</sub> -value	± 0.5 to ± 2.5	%				
Operating temperature range at:						
Zero dissipation	-25 to +100	°C				
Maximum power dissipation	0 to +55					
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 <sub>AC</sub>				
Insulation resistance between terminals and Al case	min. 100	ΜΩ				
Weight	≈ 1.5	g				

#### **Notes**

- Other R<sub>25</sub>-values and tolerances are available upon request
- Insulated leads available upon request
- $^{(1)}$  Measured with screw mounted on an aluminum heatsink of 100 cm², thickness 1.5 mm, in still air at  $T_{amb}$  = +25  $^{\circ}C$

#### **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





#### **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**

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

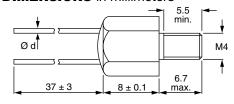
#### **MARKING**

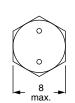
4 digits marking indicating resistance value and tolerance in accordance with the information in Electrical Data and Ordering Information table.

#### **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

ELECTRICAL DATA AND ORDERING INFORMATION							
R <sub>25</sub> (Ω)	R <sub>25</sub> -TOL. (± %)	B <sub>25/85</sub> (K)	B <sub>25/85</sub> -TOL. (± %)	LEADS DIAMETER Ø d (mm)	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	
12 000	5	3740	1.5	0.6	NTCASCWE3123J	123J	
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	
150 000	5	4370	2.5	0.6	NTCASCWE3154J	154J	
470 000	5	4570	2	0.6	NTCASCWE3474J	474J	

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