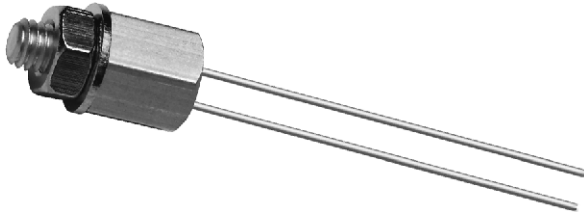


NTC Thermistors, Screw Threaded Sensors



| QUICK REFERENCE DATA | |
|--|----------------------------|
| PARAMETER | VALUE |
| Resistance value at 25 °C | 1.0 kΩ to 470 kΩ |
| Tolerance on R_{25} - value | ± 1 %, ± 2 %, ± 5 % |
| Tolerance on $B_{25/85}$ - value | ± 0.5 % to ± 2.5 % |
| $B_{25/85}$ - value | 3740K to 4570K |
| Maximum dissipation | 500 mW |
| Dissipation factor ⁽¹⁾ | ≈ 23 mW/K |
| Thermal time constant ⁽¹⁾ | ≈ 7.5 s |
| Operating temperature range at: | |
| Zero dissipation | - 40 °C to + 100 °C |
| Maximum dissipation | 0 °C to + 55 °C |
| Weight | ≈ 1.5 g |
| Min. dielectric withstanding voltage between terminals and Al case | 1500 V _{ac} (1 s) |
| Insulation resistance between terminals and Al case | min. 100 MΩ |

Notes

- ⁽¹⁾ Measured with screw mounted on an aluminium heatsink of 100 cm², thickness 1.5 mm, in still air at T_{amb} = + 25 °C
- Other R_{25} values based on 640 0 series are available upon request
- Other tolerances on R_{25} are available upon request
- Insulated leads available upon request

FEATURES

- Easy mounting
- Rugged construction
- Replaces the serie 2322 640 7....
- 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 many 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.

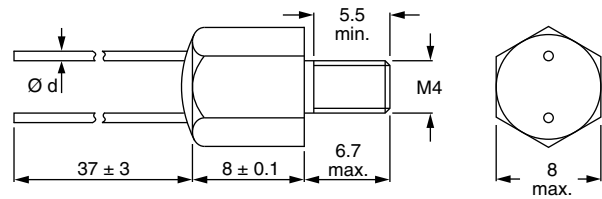
MARKING

The last 4 digits of the catalog number 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) | 12NC CODE | SAP MATERIAL NO. AND ORDERING CODE |
|---------------|-----------------------|---------------------|-------------------------|-----------|----------------|------------------------------------|
| 1.0 | ± 5 % | 3528K ± 0.5 % | 0.6 | - 3.87 | 2381 640 73102 | NTCASCWE3102J |
| 2.2 | ± 5 % | 3977K ± 0.75 % | 0.6 | - 4.37 | 2381 640 73222 | NTCASCWE3222J |
| 4.7 | ± 5 % | 3977K ± 0.75 % | 0.6 | - 4.37 | 2381 640 73472 | NTCASCWE3472J |
| 10 | ± 1 % | 3977K ± 0.75 % | 0.5 | - 4.37 | 2381 640 75103 | NTCASCWE3103F |
| 10 | ± 2 % | 3977K ± 0.75 % | 0.5 | - 4.37 | 2381 640 74103 | NTCASCWE3103G |
| 10 | ± 5 % | 3977K ± 0.75 % | 0.6 | - 4.37 | 2381 640 73103 | NTCASCWE3103J |
| 12 | ± 5 % | 3740K ± 1.5 % | 0.6 | - 4.10 | 2381 640 73123 | NTCASCWE3123J |
| 15 | ± 5 % | 3740K ± 1.5 % | 0.6 | - 4.10 | 2381 640 73153 | NTCASCWE3153J |
| 47 | ± 5 % | 4090K ± 1.5 % | 0.6 | - 4.46 | 2381 640 73473 | NTCASCWE3473J |
| 100 | ± 1 % | 4190K ± 1.5 % | 0.5 | - 4.57 | 2381 640 75104 | NTCASCWE3104F |
| 100 | ± 2 % | 4190K ± 1.5 % | 0.5 | - 4.57 | 2381 640 74104 | NTCASCWE3104G |
| 100 | ± 5 % | 4190K ± 1.5 % | 0.6 | - 4.57 | 2381 640 73104 | NTCASCWE3104J |
| 150 | ± 5 % | 4370K ± 2.5 % | 0.6 | - 4.75 | 2381 640 73154 | NTCASCWE3154J |
| 470 | ± 5 % | 4570K ± 2 % | 0.6 | - 4.95 | 2381 640 73474 | NTCASCWE3474J |

Notes

- R_{25} - values, temperature coefficients and catalog numbers
- The thermistors have a 12-digit catalog number starting with 2381 640 7. The subsequent 4 digits indicate the resistance value and tolerance.



Disclaimer

All product specifications and data are subject to change without notice.

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