

NTC THERMISTORS

screw range

Features

- Easy mounting
- Rugged construction

TEMPERATURE SENSING AND CONTROL

QUICK REFERENCE DATA

	640 7....	642 7....
Resistance value at +25 °C	2.2 kΩ to 470 kΩ	3.3 Ω to 1.5 kΩ
Dissipation factor approx. (see note 1)	23 mW/K	25 mW/K
Thermal time constant approx. (see note 1)	7.5 s	20 s
Operating temperature range		
at zero power	-25 to +100 °C	-25 to +100 °C
at maximum power	0 to +55 °C	0 to +55 °C

APPLICATION

Suitable for all kinds of applications, especially when a good insulation and/or a good thermal contact with the chassis is required.

DESCRIPTION

Disc thermistor with negative temperature coefficient mounted in the head of aluminium screws M4 and with two solid tinned copper wires.

MECHANICAL DATA

Outline drawing

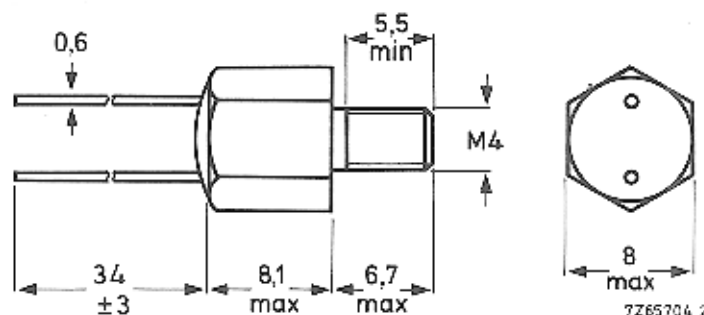


Fig.1 Component outline.

Note

1. Measured with screw mounted on an aluminium heatsink of 100 cm², thickness 1.5 mm, in still air, T_{amb} = +25 °C.

Marking

The last 4 digits of the catalogue number are printed on the stud in accordance with the information in Tables 1 and 2.

Mass

1.5 g approx.

Mounting

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

Robustness of terminations

Tensile strength	10 N
Bending	5 N
Torque applied on screw	1.2 Nm max.

Soldering

Solderability	max. 240 °C, max. 4 s
Resistance to heat	max. 240 °C, max. 4 s

PACKAGING

100 thermistors in a cardboard box.

ELECTRICAL DATA

Maximum dissipation	0.5 W
Heat capacity	0.5 J/K approx.
Operating temperature range	
at zero power	-25 to + 100 °C
at maximum power	0 to + 55 °C
Dielectric withstanding voltage between terminals and screw	min. 100 V RMS
Insulation resistance between terminals and screw at 100 V DC	min. 100 MΩ

Also see Tables 1 and 2.

For typical resistance/temperature and voltage/current characteristics, refer to data for type 2322 640 6.... or 2322 642 6....

Table 1 Catalogue number 2322 640 7....

SUFFIX OF CATALOGUE NUMBER	R ₂₅ (Ω)	B _{25/85} -VALUE		TEMPERATURE COEFFICIENT AT 25 °C (%/K)
		K	±%	
R ₂₅ ±5%				
3472	4700	3977	0.75	-4.37
3103	10000	3977	0.75	-4.37
3123	12000	3740	1.5	-4.10
3153	15000	3740	1.5	-4.10
3473	47000	4090	1.5	-4.46
3104	100000	4190	1.5	-4.57
3154	150000	4370	2.5	-4.75
3474	470000	4570	2	-4.95

Table 2 Catalogue number 2322 642 7....

SUFFIX OF CATALOGUE NUMBER		R ₂₅ (Ω)	B _{25/85} -VALUE		TEMPERATURE COEFFICIENT AT 25 °C (%/K)
TOL. 5%	TOL. 10%		K	±%	
3478	2478	4.7	2750	5	-3.1
3109	2109	10	2875	5	-3.2
3479	2479	47	3150	5	-3.5
3101	2101	100	3300	5	-3.7
3151	2151	150	3375	5	-3.8
3471	2471	470	3650	5	-4.1
3102	2102	1000	3825	5	-4.3
3152	2152	1500	3975	5	-4.5