

NTC Thermistors, Glass Encapsulated Miniature Bead



FEATURES

- Small diameter
- Quick response to changes in temperature
- High stability over long time periods
- High temperature operation
- Resistant to aggressive environments
- High degree of isolation between tip and environment

APPLICATIONS

Temperature measurement and control.

Bead thermistor with negative temperature coefficient, in a glass envelope with two tinned durnet (CuNiFe) leads. The device is non-flammable.

MARKING

The thermistors are marked with four colored dots on the glass envelope; see Component Outline drawing and Electrical Data and Ordering Information table.

MOUNTING

By soldering in any position.

PACKAGING

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

QUICK REFERENCE DATA	
PARAMETER	VALUE
Resistance value at 25 °C	1 kΩ to 1 MΩ
Tolerance on R25-value	±5%; ±10%
B25/85-value	2075 to 4100 K
Tolerance on B25/85-value	±5%
Maximum dissipation at 55 °C	100 mW
Dissipation factor	≈1.2 mW/K
Response time; note 1	≈1 s
Thermal time constant	≈10 s
Operating temperature range: at zero dissipation	-55 to +200 °C or -55 to +300 °C
at maximum dissipation	0 to 55 °C
Dielectric withstanding voltage (RMS) between terminals and glass envelope	min. 1 500 V
Insulation resistance between terminals and glass envelope at 100 V	min. 100 MΩ
Mass	≈0.27 g

Note

1. Response time in silicone oil MS200/50. This is the time needed for the sensor to reach 63.2% of the total temperature difference when subjected to a temperature change from 25 °C in air to 85 °C in oil.

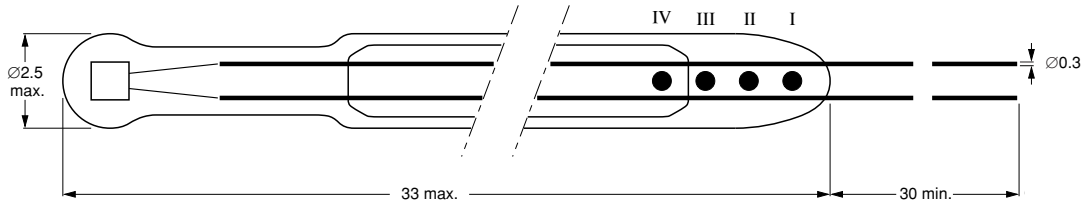
ELECTRICAL DATA AND ORDERING INFORMATION								
R ₂₅ (kΩ)	B _{25/85} -VALUE	TC (%/K)	MAX. TEMPERATURE (°C)	CATALOG NUMBER 2322 626 1....		COLOUR CODE (see Component outline drawing and note 1)		
				R ₂₅ ±5%	R ₂₅ ±10%	I	II	III
1	2075 K ±5%	-2.3	200	3102	2102	brown	black	red
2.2	2285 K ±5%	-2.6	200	3222	2222	red	red	red
4.7	2485 K ±5%	-2.8	200	3472	2472	yellow	violet	red
10	3750 K ±5%	-4.2	200	3103	2103	brown	black	orange
22	3560 K ±5%	-4.0	200	3223	2223	red	red	orange
47	3750 K ±5%	-4.2	300	3473	2473	yellow	violet	orange
100	3900 K ±5%	-4.4	300	3104	2104	brown	black	yellow
220	3860 K ±5%	-4.3	300	3224	2224	red	red	yellow
470	3950 K ±5%	-4.5	300	3474	2474	yellow	violet	yellow
1000	4100 K ±5%	-4.6	300	3105	2105	brown	black	green

Note

1. Dependent upon R25-tolerance, the dot IV is coloured as follows:
 - a) for R25 ±5%, dot IV is coloured gold;
 - b) for R25 ±10%, dot IV is coloured silver.
2. R₂₅-values, temperature coefficients, catalog numbers and coding.
3. The thermistors have a 12-digit catalog number starting with 2322 626 1. The subsequent 4 digits indicate the resistance and tolerance.

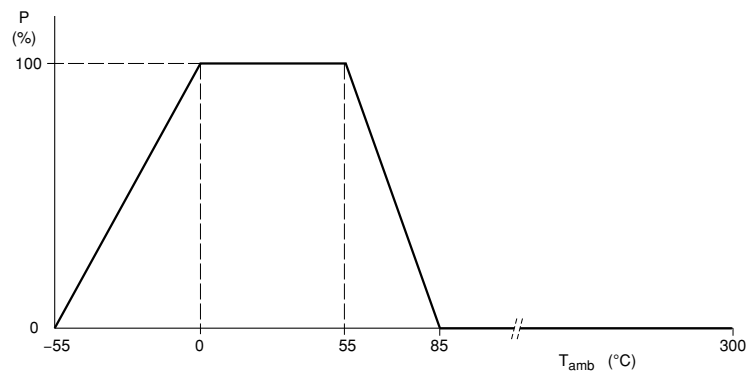
DIMENSIONS in millimeters

Component outline.



Maximum bow in the centre of the glass envelope is 1 mm.

DERATING



Power derating curve.