

SENSOR_CNSE Series

Epoxy resin encapsulation structure



◆ Application Introduction

The thermistor sensor with an epoxy resin encapsulated head is an electronic measurement component that integrates temperature sensing with reliable protection. The core of this sensor is the thermistor chip, which is highly sensitive to temperature changes and efficiently converts temperature signals into resistance value signals. Epoxy resin, used as the encapsulation material for the head, possesses many excellent properties.

It is hard yet tough, providing solid physical protection for the thermistor chip, effectively resisting external mechanical shock, vibration, and abrasion, ensuring the chip's stability and reliability in complex environments.

Simultaneously, epoxy resin offers excellent electrical insulation, preventing electrical short circuits between the chip and the external environment, ensuring the sensor's normal operation.

Additionally, epoxy resin has good chemical stability, able to withstand corrosion from various chemicals, adapting to different working environments.

◆ Features

1. High temperature measurement accuracy
2. Small size
3. Fast response speed

◆ 应用

1. Air conditioning equipment
2. Heating equipment
3. Electronic thermometers
4. Automotive electronics
5. Electronic desk calendars
6. Mobile phone batteries

◆ 编码原则

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12~18 |
|--------------|-------------|----|--------|---|------------------|------|---------------------------|-----|---------|---------------|-----------------------|
| Product Type | | | Series | | Resistance Value | | Resistance value accuracy | | B value | | Internal Control Code |
| CNS | NTC Chip | E0 | 105°C | Epoxy Resin Encapsulation Structure | 103 | 10KΩ | F | ±1% | 34 | B(25/85)=3435 | |
| | | E1 | 150°C | | 473 | 47KΩ | G | ±2% | 38 | B(25/50)=3800 | |
| | | E2 | 80°C | | 502 | 5KΩ | H | ±3% | 39 | B(25/50)=3950 | |
| | | E3 | 125°C | | | | J | ±5% | 40 | B(25/85)=4000 | |

◆ 规格

| Part Number (Model No.) | Zero Power Resistance at 25°C | Tolerance of Resistance | B-Value | Thermal Dissipation Constant | Thermal Time Constant | Operating Temperature Range |
|----------------------------|-------------------------------------|----------------------------|---------------|------------------------------------|-----------------------------|-----------------------------------|
| | (KΩ) | (±%) | (K) | (mW/°C) | (s) | (°C) |
| CNSKC202@MM | 2 | 1,2,3,5 | (B25/85)3530 | ≤ 3 | ≤ 10 | -40°C ~ 150°C |
| CNSKC4A2@MM | 4.7 | | (B25/100)3985 | | | |
| CNSKC502@MM | 5 | | (B25/50)3950 | | | |
| CNSKC6A2@MM | 6.8 | | (B25/50)3950 | | | |
| CNSKC103@MM | 10 | | (B25/85)3435 | | | |
| CNSKC153@MM | 15 | | (B25/50)4150 | | | |
| CNSKC473@MM | 47 | | (B25/50)3950 | | | |
| CNSKC104@MM | 100 | | (B25/85)3950 | | | |
| CNSKC204@MM | 200 | | (B25/50)3899 | | | |

K Customer application code May be A、E、F、G、H
C Temperature resistance rating: 0(105°C)、1(150°C)、2(80°C)、3(125°C)
@ Resistance value accuracy: F:±1%; G:±2%; H:±3%; J:±5% or difference tolerance of the R25
MM B value