SENSOR_CNSA Series

Electrical terminal structure

◆ Application Introduction

The thermistor sensor with a terminal structure at the head is a precision electronic component that converts temperature changes into electrical signals, finding wide application in the field of temperature measurement and control. Its core component is the thermistor chip, a semiconductor device extremely sensitive to temperature, capable of accurately altering its own resistance value based on temperature fluctuations. The terminal structure at the sensor's head is one of its key features.

The terminals are typically made from highly conductive metal materials, such as copper alloy, and undergo special surface treatments like tin or gold plating to enhance oxidation resistance and the stability of thermal/electrical connections. These terminals not only provide reliable electrical connection points for the thermistor chip, facilitating easy connection to external systems, but also offer a degree of mechanical protection for the chip.

◆ Features

1. High stability
2. Supports a temperature measurement range of -40℃ to +150℃
3. Good moisture resistance and durability
4. Easy to fix with screws or spot welding
5. Standard tab terminal sensor, easy to install

◆ Applications

1. New Energy Vehicles
2. AI Servers, Server Power Supplies, Robots
3. Charging Piles, Energy Storage Equipment
4. Data Projectors, Inverters, Heat Pumps, etc.
5. Fans and Heaters
6. Surface Temperature Measurement

◆ Coding Principles

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		A0	105℃	Electrical terminal structure	103	10KΩ		F	±1%	34	B(25/85)=3435	
			A1	150℃		473	47KΩ		G	±2%	38	B(25/50)=3800	
			A2	80℃		502	5KΩ		H	±3%	39	B(25/50)=3950	
			A3	125℃					J	±5%	40	B(25/85)=4000	

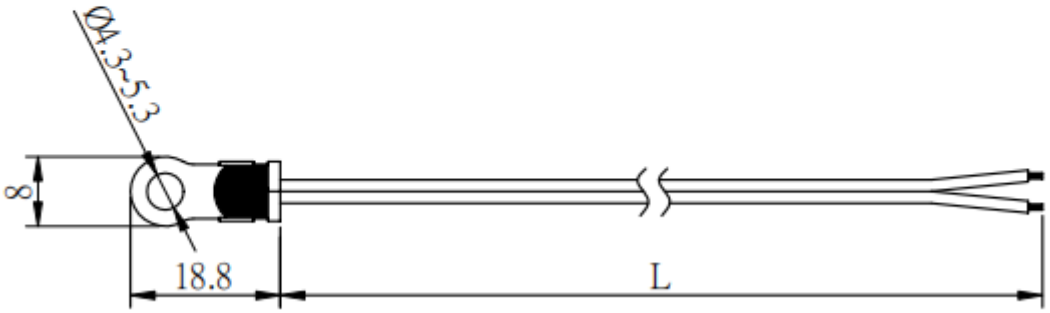
◆ Specifications

Part Number (Model No.)	Zero Power Resistance at 25℃	Tolerance of Resistance	B-Value	Thermal Dissipation Constant	Thermal Time Constant	Operating Temperature Range
	(KΩ)	(±%)	(K)	(mW/℃)	(s)	(℃)
CNSKC202@MM	2	1,2,3,5	(B25/85)3530	≤ 3	≤ 10	-40℃ ~ 150℃
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			

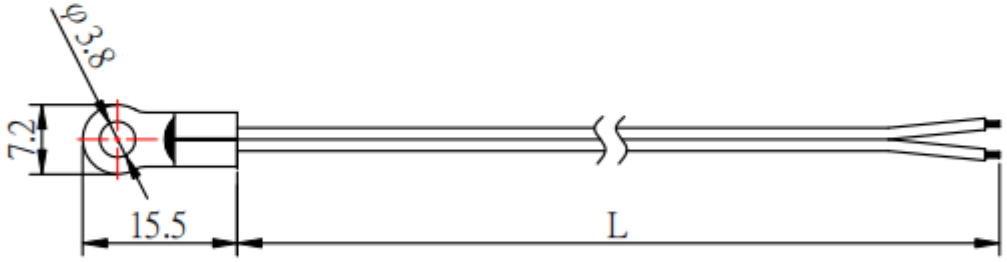
K Customer application code May be A、E、F、G、H
C Temperature resistance rating:0(105℃)、1(150℃)、2(80℃)、3(125℃)
@ Resistance value accuracy:F:±1%; G:±2%; H:±3%; J:±5% or difference tolerance of the R25
MM B value

◆ Product

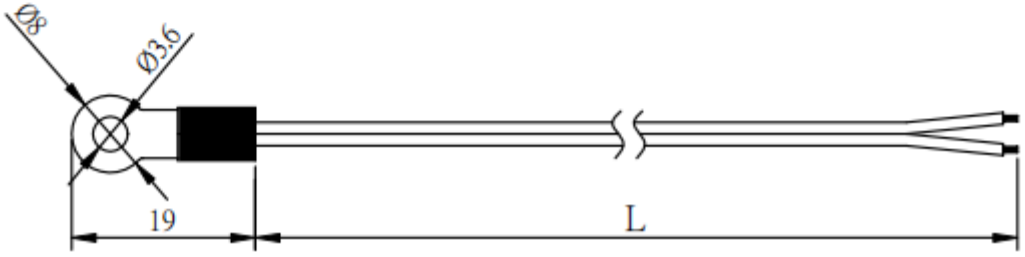
Application Scope	New energy vehicles, energy storage equipment
Characteristics	Strong thermal conductivity, good corrosion resistance, high conductivity
Working Temperature	-40℃~+125℃
Thermal Time Constant	About 15 seconds



Application Scope	Temperature detection of frequency converter
Characteristics	Encapsulated with high heat resistance and oil temperature resistance epoxy resin, fast thermal conductivity
Working Temperature	-40℃~+125℃
Thermal Time Constant	About 15 seconds



Application Scope	New energy vehicles, photovoltaic energy storage, wind energy storage
Characteristics	High precision, good heat resistance
Working Temperature	-40℃~+125℃
Thermal Time Constant	About 15 seconds



Application Scope	Vehicle temperature detection
Characteristics	Fixed ring terminal, high heat resistance, easy to install
Working Temperature	-40℃~+125℃
Thermal Time Constant	About 15 seconds