



## Moistureproof Auto Vehicle Temperature Sensor 5K 10K 20K Multi Scene

Our Product Introduction

### Basic Information

- Place of Origin: Dongguan China
- Brand Name: linkun
- Certification: CE / ROHS / UL / TUV / SGS
- Model Number: Vehicle Temperature Sensor
- Minimum Order Quantity: Negotiation
- Price: Negotiation
- Packaging Details: Export Package / Negotiation
- Delivery Time: Negotiation
- Payment Terms: T/T, L/C, Western Union
- Supply Ability: 24 million per year



### Product Specification

- Features: Fast Response
- Application: Vehicle
- Keywords: Temperature Sensor
- Working Temperature Range(°C): -10 To +105c
- Resistance Value: 5K,10K,20K,50K,100K
- Dissipation Factor(mw/°C): 1-2 (in Still Air)
- Highlight: **Moistureproof Vehicle Temperature Sensor, 5K Vehicle Temperature Sensor, 20K Auto Temperature Sensor**

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## Product Description

### High Stability Fast Response Vehicle Temperature Sensor Excellent Moisture Resistance

Negative temperature coefficient thermistors are made of metal oxides such as manganese, cobalt, nickel and copper, and are manufactured by ceramic technology. These metal oxide materials all have semiconductor properties, because they are completely similar to semiconductor materials such as germanium and silicon in terms of conductivity. When the temperature is low, the number of carriers (electrons and holes) in these oxide materials is small, so its resistance value is high; as the temperature increases, the number of carriers increases, so the resistance value decreases. The range of NTC thermistor at room temperature is 100~1000000 ohms, and the temperature coefficient is -2[%]~-6.5[%].

► Different NTC thermistor using in the NTC temperature sensors with the following different operating temperature:

Chip or MF52A,MF51E,MF55: temperature resist grade 125°C,actual temperature resist grade 150°C

MF58: temperature resist grade 200°C,actual temperature resist grade 250°C

MF51: temperature resist grade 200°C,actual temperature resist grade 250°C

Special MF51: temperature resist grade 250°C,actual temperature resist grade 300°C

Weldless chip:temperature resist grade 450°C,actual temperature resist grade 500°C

Type	NTC(thermistor) Temperature Sensor
Temperature range	-50°C ~ +300°C Customized
Accuracy	1% 5% 10%
RT(25°C)	1K 2K 2.2k 2.7k 3K 5K 7K 8K 12K 15K 20K 25K 30K 40K 47K 50K 60K 70K 100K 200K 230K 250K 470K 500K 1000K Customized
B value	3274 3435 3470 3928 3950 3977 4100 4200 4400 Customized
Probe Material	Stainless steel SS304 aluminum copper plastic epoxy glass
Installation	Flanged Surface Threaded Plastic Straight Film Customized
Wire Material	Heat shrinkable tube PVC tube glass fiber tube tube
Connector	Molex JST DuPont CWB CJT U type Customized
Waterproof	IP67 IP68

### The main technical parameters:

1. The rated zero-power resistance value R25 refers to the zero-power resistance value of the thermistor measured at 25°C.
2. B value; defined as the ratio of the difference of the natural logarithm of the zero-power resistance value at two temperatures to the difference between the two temperatures.
3. Thermal time constant; under zero power conditions, when the temperature changes suddenly, the time required for the temperature of the thermistor body to change by 63.2% of the temperature difference between the beginning and the end.
4. Dissipation coefficient; at a specified ambient temperature, the ratio of the change in power dissipation of the thermistor to its corresponding temperature change.

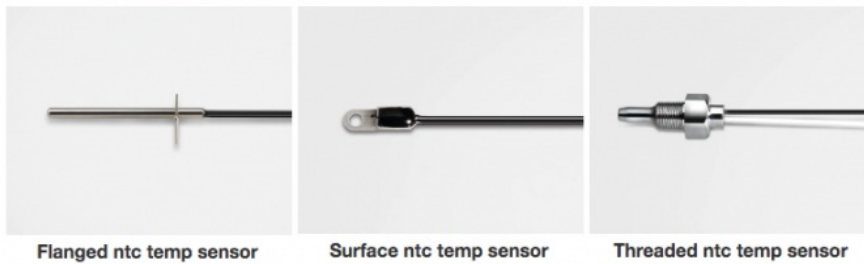
### Main Technology Parameters

Part number	Rated resistance R25		B value (25/50)		Dissipation Coefficient. Mw/°C	Thermal time constant sec	Operating temperature °C
	Range KOhm	Tolerance %	(K)	Tolerance %			
CWF□□□ 3100	0.1~20	±1 ±2 ±3 ±5	3100	±1	≥2.2	≤70	-55~+125
CWF□□□ 3270	0.2~20		3270				
CWF□□□ 3380	0.5~50		3380				
CWF□□□ 3470	0.5~50		3470				
CWF□□□ 3600	1~100		3600				
CWF□□□ 3950	5~100		3950				
CWF□□□ 4000	5~100		4000				
CWF□□□ 4050	5~200		4050				
CWF□□□ 4150	10~250		4150				
CWF□□□ 4300	20~1000		4300				
CWF□□□ 4500	20~1000		4500				

### NCT temperature sensor application range

- ◆ Heating and heating air conditioners and related equipment

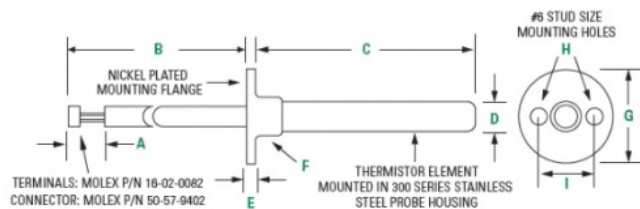
- ◆ Household appliances of various sizes: air conditioners, refrigerators, battery stoves, bread ovens, baking ovens, electric ovens, microwave ovens, electric fans, soybean milk machines, electric water heaters, electric rice cookers, disinfection cabinets, water dispensers, heaters, electric irons, disinfection Cabinets, drinking fountains, lighting appliances, etc.
- ◆ Temperature measurement and control circuits for agricultural, medical, environmental protection, meteorological, food processing and other equipment
- ◆ Instrument coils, automotive circuits, integrated circuit modules, transistor amplifier circuits, temperature compensation circuits such as quartz crystal oscillators and thermocouples



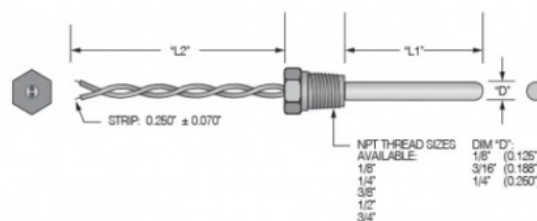
### Working principle of temperature sensor

Using the NTC thermistor under a certain measurement power, the resistance value drops rapidly as the temperature rises. Utilizing this feature, the NTC thermistor can be used to determine the corresponding temperature by measuring its resistance value, so as to achieve the purpose of detecting and controlling the temperature.

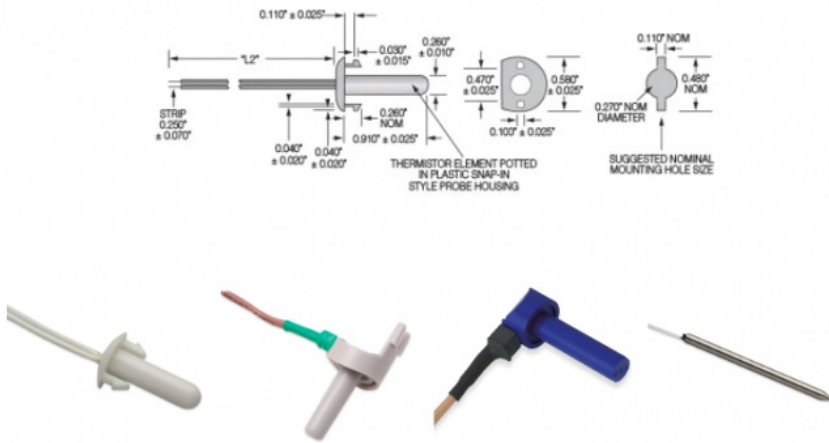
### Flanged Probes



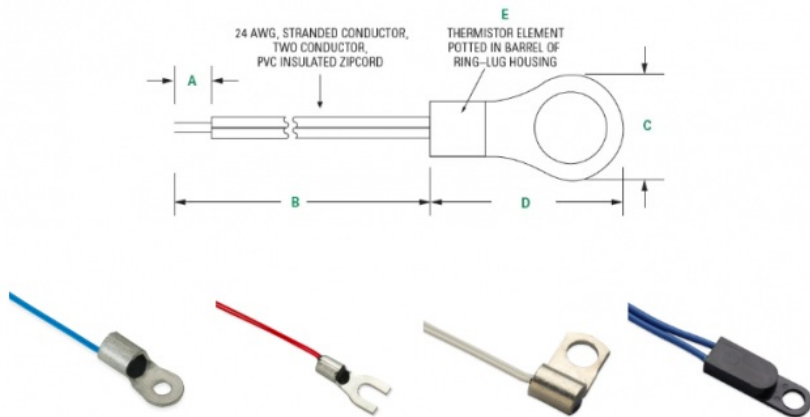
### Threaded Probes



**Special Probes:** Customized according to purpose



**Surface Probes**

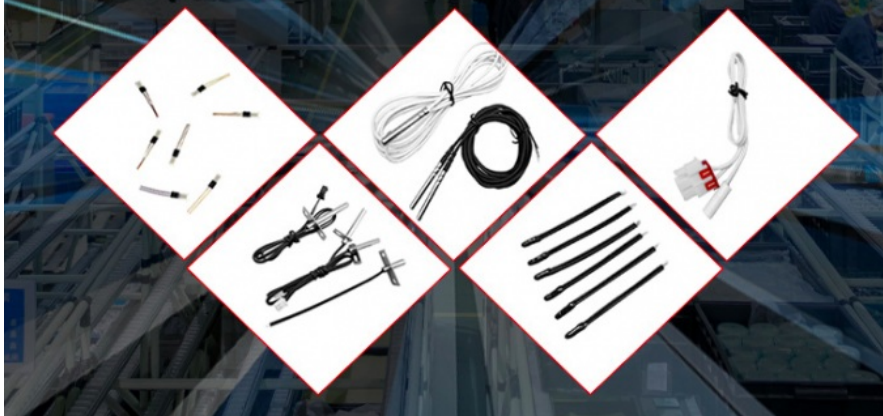


**Conventional product electrical performance parameters**

Part No.	R25°C (KΩ)	B(K) 25/50°C	Rated Power @25°C(mW)	Dissipation Factor(δ) (mW/°C)	Thermal time Constant (S)
TS502□3274A	5.0	3274	10-20	2-4	5-20
TS502□3435B	5.0	3435	10-20	2-4	5-20
TS502□3470A	5.0	3470	10-20	2-4	5-20
TS502□3950A	5.0	3950	10-20	2-4	5-20
TS103□3274A	10.0	3274	10-20	2-4	5-20
TS103□3435B	10.0	3435	10-20	2-4	5-20
TS103□3470A	10.0	3470	10-20	2-4	5-20
TS103□3950A	10.0	3950	10-20	2-4	5-20
TS103□4100A	10.0	4100	10-20	2-4	5-20
TS153□3950A	15.0	3950	10-20	2-4	5-20
TS153□4100A	15.0	4100	10-20	2-4	5-20
TS203□3950A	20.0	3950	10-20	2-4	5-20
TS203□4100A	20.0	4100	10-20	2-4	5-20
TS223□4200A	22.0	4200	10-20	2-4	5-20
TS403□3928A	40.0	3928	10-20	2-4	5-20
TS503□3950A	50.0	3950	10-20	2-4	5-20
TS503□4100A	50.0	4100	10-20	2-4	5-20
TS104□3950A	100.0	3950	10-20	2-4	5-20
TS104□4100A	100.0	4100	10-20	2-4	5-20
TS104□4400A	100.0	4400	10-20	2-4	5-20

# PROFESSIONAL MANUFACTURER

14 years of temperature sensor manufacturing experience



## Application



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