Waterproof NTC Temperature Sensor 10K B3977 Accuracy 1% Sealed Thermistor Probe

Our Product Introduction

Basic Information

- Place of Origin: Dongguan China
- Brand Name: linkun
- Certification: CE / ROHS / UL / TUV / SGS
- Model Number: Electric Temp Sensor 10KF3977
- 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: Resistance,B-value Can Be Customized
- Resistance Value: 1K, 5K, 10K, 50K, 100K, 15K
- Usage: Temperature Sensor
- Operating Temperature: -40~+200degC
- Customized: Available
- Resistance Tolerance: F±1%,G:±2%, H:±3%,J:±5%,K:±10%
- Highlight: **Waterproof NTC Heat Sensor**, **Stable NTC Heat Sensor**, **Practical NTC Electronic Component**

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Product Description

Waterproof NTC temperature sensor 10K B3977 accuracy 1% sealed thermistor probe

The accuracy of the temperature sensor should reach ±2%~±5%RH. If it cannot reach this level, it is difficult to use it as a measuring instrument. It is difficult for the temperature sensor to achieve the accuracy of ±2%~±3%RH. The given properties are measured at room temperature (20°C ± 10°C) and in clean gas. In actual use, due to the influence of dust, oil and harmful gases, aging will occur and the accuracy will decrease after a long time of use. The accuracy level of the temperature sensor should be judged in combination with its long-term stability. Generally speaking, long-term stability and use The lifespan is the first issue affecting the quality of the temperature sensor. There are very few products whose annual drift is controlled at 1%RH level, generally around ±2%, or even higher.

►Design considerations and procedure of temperature sensor:

1. Choose the shape acoording to customer's design or assemble requirements, and confirm the thermistor.
2. Confirm the thermistor element and other materials according to customers' requirement
3. Choose the suitable resistance,B value and tolerance
4. Choose suitable moisture-proof and insulation technology to meet customer's requirement
5. Choose suitable encapsulation structure to meet performance requirements of mechanical shock resistance
6. Meet customer's special requirements.

Features:

- High sensitivity and fast response
- Resistance value and B value have high precision, good consistency and interchangeability
- Using double-layer encapsulation technology, it has good insulation sealing and resistance to mechanical collision and bending resistance
- The structure is simple and flexible, and can be customized according to different design requirements of customers.

Application

- Air conditioners, refrigerators, freezers, water heaters, water dispensers, heaters, dishwashers, disinfection cabinets, washing machines, dryers and other home appliances.
- Automobile air conditioner, water temperature sensor, intake air temperature sensor, engine
- Switching power supply, UPS uninterruptible power supply, frequency converter, electric boiler, etc.
- Intelligent toilet, electric blanket, etc.

Product drawings are for reference; can be customized according to required parameters, specifications, and length (drawings and samples are provided)

Product Description

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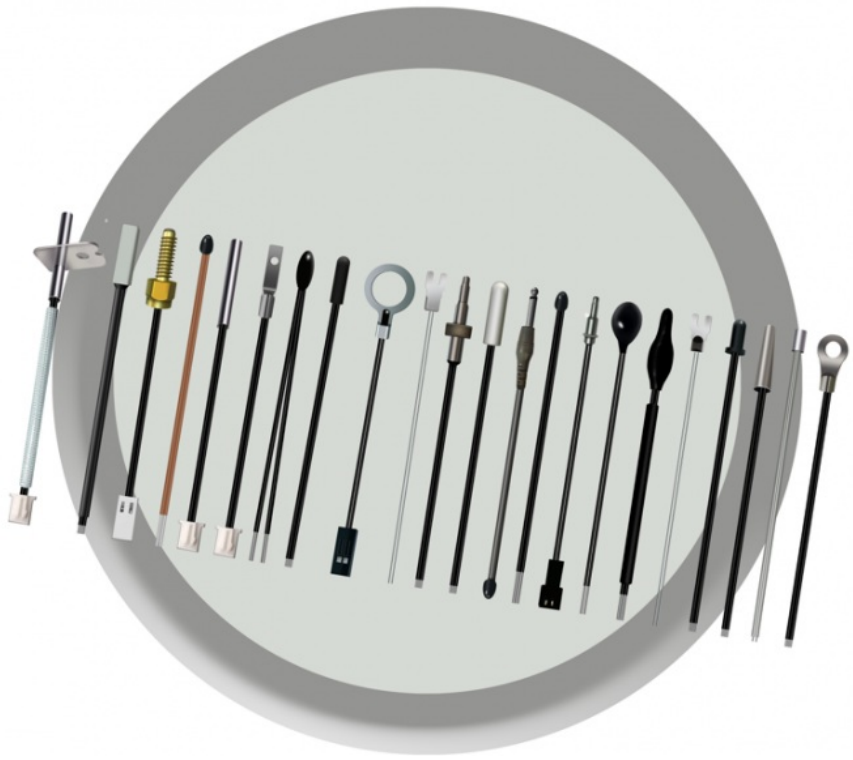
Main technical parameters of sensor series thermistor:						
Model	Rated resistance value (R25)	B value		Operating temperature	Dissipation coefficient	Thermal time constant
	Resistance value (KΩ)	Allowable deviation (±%)	Nominal value (K)		(mW/°C)	(S)
CWF-102-3435	1		3435			
CWF-202-3435	2		3435			
CWF-2.252-3950	2.252		3950			
CWF-472-3950	4.7		3950			
CWF-502-3470	5		3470			
CWF-502-3950	5		3950			
CWF-682-3950	6.8		3950			

CWF-103-3435	10	±1% ±2% ±3% ±5%	3435	-40℃ 120℃	≥3.0 in still air	≤6.0 in still air
CWF-103-3470	10		3470			
CWF-103-3600	10		3600			
CWF-103-3380	10		3380			
CWF-103-3977	10		3977			
CWF-103-4100	10		4100			
CWF-153-3950	15		3950			
CWF-203-3950	20		3950			
CWF-233-3950	23		3950			
CWF-303-3950	30		3950			
CWF-333-3977	33		3977			
CWF-403-3950	40		3950			
CWF-473-4013	47		4013			
CWF-503-3977	50		3977			
CWF-503-3990	50		3990			
CWF-503-4050	50		4050			
CWF-104-3950	100		3950			
CWF-104-3990	100		3990			
CWF-104-4200	100		4200			
CWF-204-3892	200		3892			
CWF-204-3917	200		3917			



Applications

Temperature measurement and control of household air-conditioner, refrigerator, icebox,water heater,drinking machine,radiator,dishwasher, disinfector,washing machine, drying machine,middle-or-low-temperature drying box and constant
temperature box.

Materials:

Working principle of temperature sensor

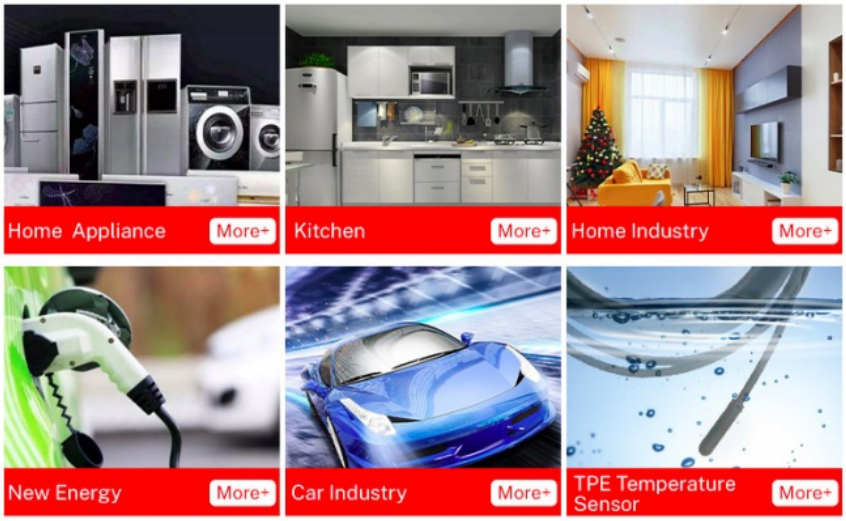
Using the NTC thermistor under a certain measurement power, the resistance value drops rapidly as the temperature rises. Utilizing this feature, the NTC thermistor can be used to determine the corresponding temperature by measuring its resistance value, so as to achieve the purpose of detecting and controlling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

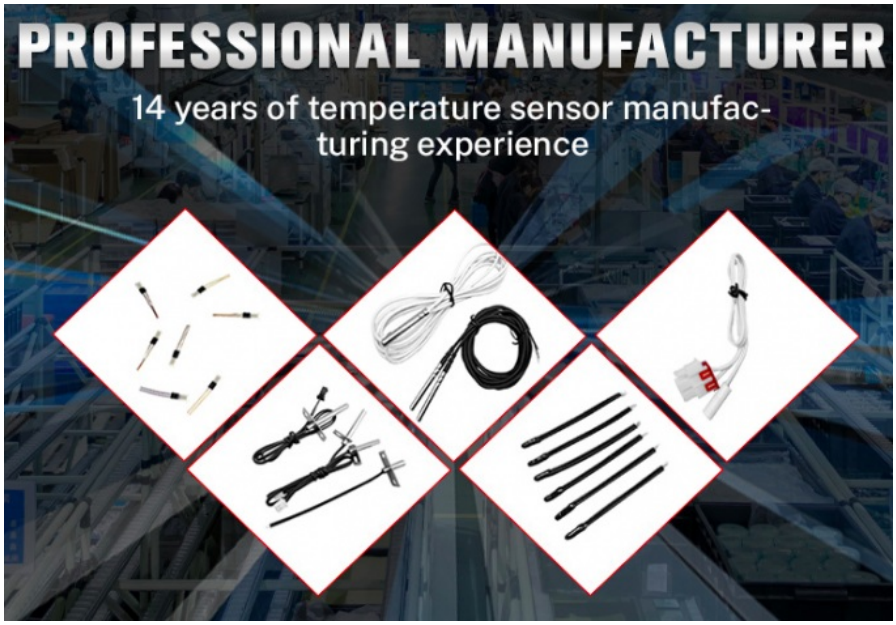
Reliability Test

Test Item	Test Standard	Test method	Performance requirements
Zero Power Resistance	IEC 60539-1	Immerse samples in the constant temperature bath at 25℃±0.005℃,test steady resistance	Resistance tol ±1%
B value	IEC60539-1	Immerse samples in the constant temperature bath at 25℃,50℃(or 85℃), test steady resistance,and calculate B value	Resistance tol ±1%
Free fall	IEC60068-2-32	Fall height: 1.5±0.1m,Surface: Cement , 1 time	No obvious damage, R25 △R/R≤±1%
Insulation	IEC60539-1	500V pressure on insulation shell test insulation resistance	>500MOhm
Withstand voltage	IEC60539-1	Withstand voltage: 1500V/AC ,Leakage current:2mA Lasting: 60sec	No obvious damage
Tension	IEC60068-2-21	Pull uniform speed at the end, F>4.0KG(requested by customer)	No obvious damage, R25 △R/R≤±1%
Vibration	Q/HBm 108-94	Test frequency: 10~500Hz,swing: 1.2mm acceleration: 30m/s2 Direction X,Y,Z Time:8Hour/direction	No obvious damage, R25 △R/R≤±1%
Steady humidity and heat	IEC60068-2-78	Temp:40±2℃ Humidity:92-95%RH Time:1000±24Hour	No obvious damage, R25 △R/R≤±1%
Thermal time constant	EC60539-1	Immerse in 25℃ water,after thermal balance,immerse in 85℃,resistance arrives 63.2%,calculate total time	<10 sec
High temperature storage	IEC60068-2-2	Temp:125℃±5℃ Time: 1000±24Hour	No obvious damage, R25 △R/R≤±1%

Cold and thermal shock	IEC60068-2-14	-40℃~+125℃ T1:30min Cycle time:1000	No obvious damage, R25 △R/R≤±1%
Knock experiment	IEC60068-2-77	Acceleration:250m/s2 Pulse lasting: 6ms Knock times: 1000 Recovery time: 2 Hour	No obvious damage, R25 △R/R≤±1%
Low temperature storage	IEC60068-2-1	Temp: 40±2℃ Time: 1000±24Hour	No obvious damage, R25 △R/R≤±1%
Salt spray	IEC60068-2-11	Temp: 35±2℃ Collection hour : 1.0mL~2.0mL Time: determine per as actual demand	No obvious damage, R25 △R/R≤±1%

PRODUCT CATEGORIES





Dongguan Linkun Electronic Technology Co., Ltd.

13423305709 huangju@lk-ptc.com lk-thermistor.com

Room 101, No. 21, Huayuanzai Road, Chongmei, Chashan Town, Dongguan City, Guangdong Province