5K 10K 50K 100K 3950 1% Household Water Dispenser Temperature Sensor Ntc Thermistor High Temperature Conduction Fast Res

Our Product Introduction

Basic Information

- Place of Origin: Dongguan China
- Brand Name: linkun
- Certification: CE / ROHS / UL / TUV / SGS
- Model Number: Household Appliance Temperature Sensor 10KF3950 100K1%3950
- 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

- Resistance Value: 1K, 5K, 10K, 50K, 100K, 15K 150K
- Accracy: ±1%
- Application: Water Dispenser
- Temperature Range: -40~120
- Feature: Excellent Moisture Resistance
- Resistance Tolerance: F±1%,G:±2%, H:±3%,J:±5%,K:±10%
- Highlight: **Practical Household Temperature Sensor**, **5K Household Temperature Sensor**, **Water Dispenser 5K Temperature Sensor**

More Images

Product Description

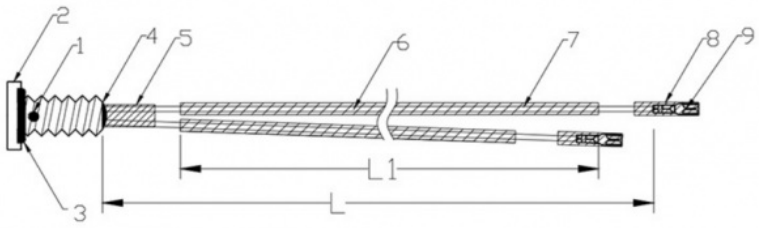
CWF 5K 10K 50K 100K 3950 1% Household Water Dispenser Temperature Sensor Ntc Thermistor High Voltage Conduction Fast

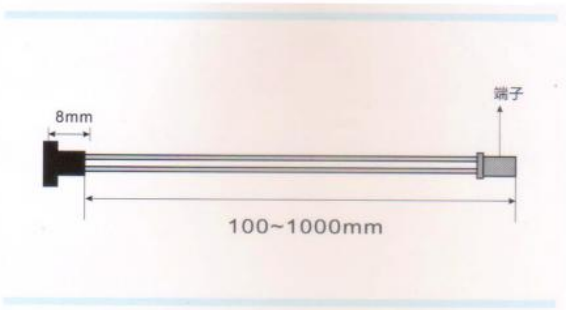
NTC temperature sensors are usually composed of 2 or 3 metal oxides, mixed in a fluid-like clay, and calcined into a dense sintered ceramic in a high-temperature furnace. Oxygen-bonded metals tend to donate free electrons. Ceramics are generally excellent insulators. But only theoretically, this is the case for thermistor-type ceramics when the temperature approaches absolute zero. However, as the temperature increases to more common ranges, thermal excitations eject more and more free electrons. As more electrons carry current through the ceramic, the effective resistance decreases. Resistance changes very sensitively with temperature. A typical change is a decrease of (-)7[%] to 3[%] per degree Celsius. This is the most sensitive of any sensor suitable for use over a wide temperature range.

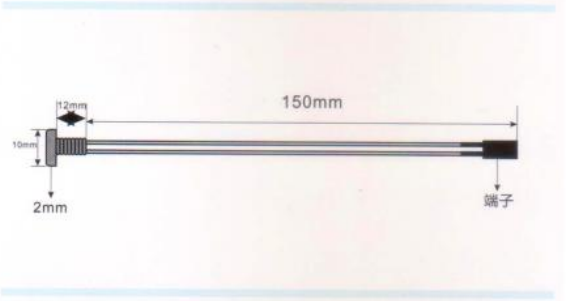
The rated room temperature resistance depends on the resistivity of the base material, the size and geometry, and the contact area of the electrodes. Thick and narrow thermistors have relatively high resistance, while thin and wide shapes have lower resistance. Actual size is also very flexible, they can be as small as .010 inches or very small diameter. There is almost no limit to the maximum size, but usually under half an inch applies.

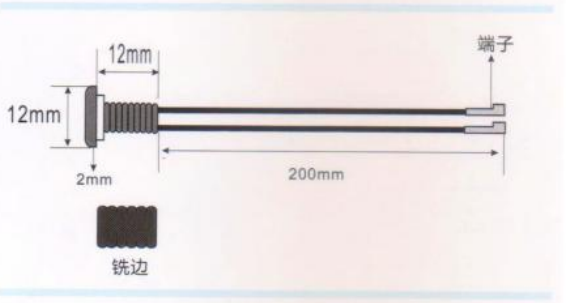
NTC temperature sensor product features

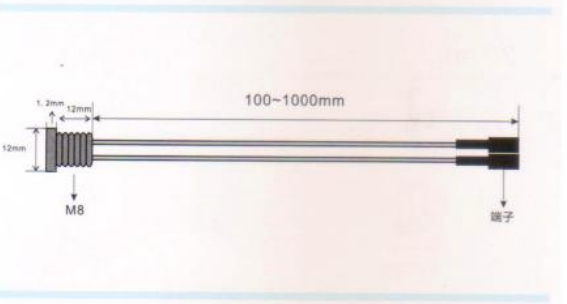
◆Using a new technology, the product performance is stable, and it can work stably for a long time (annual resistance value drift rate ≤ 3‰)
◆Resistance value and B value have high precision, good consistency, and are interchangeable (resistance value and B value accuracy can reach ±1% respectively)
◆High sensitivity and rapid response
◆Using double-layer sealing technology, it has good insulation sealing and anti-mechanical collision and anti-bending capabilities
◆It can be packaged according to the installation conditions used, which is convenient for users to install; it can be made into high-dissipation products, and the test current can be much higher than that of sensors with traditional structures, which simplifies the application circuit

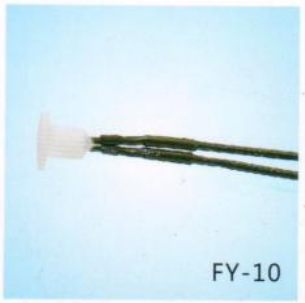


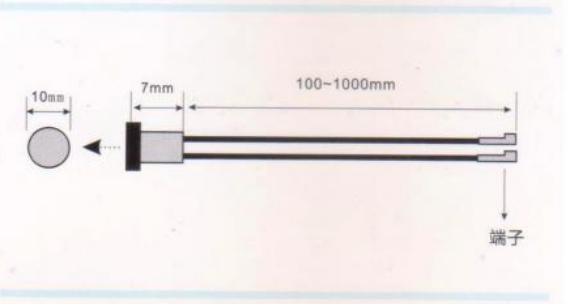












Product Description

Certificates for Raw Material	All parts and processing is compliant with ROHS, CCC
Certificates for Wire Harness Material	UL/CSA,CE, VDE,SAA,CB,ISO9001 etc are avalable; PA66 for connectors; copper or stainless steel for terminals
Length	As per customer’s request
Connector Type	Tyco, Delphi, Bosch, Deutsch, Yazaki, Sumitomo, FCI replacements
Service	Different series of customized CAD wire harness are available

NTC 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

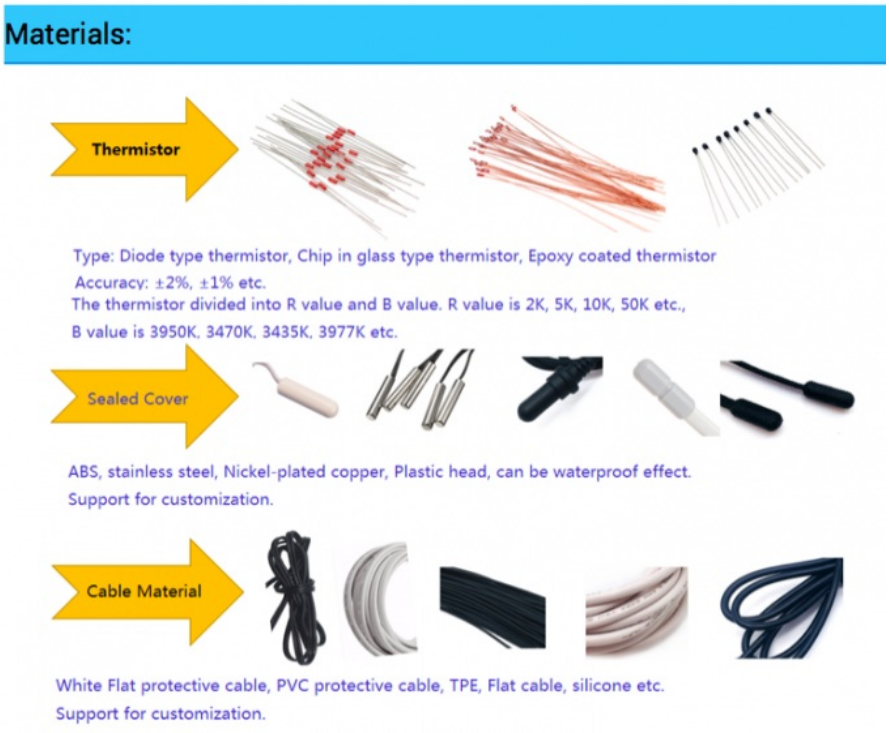
Conventional product electrical performance parameters

Part No.	R25 (KΩ)	B(K) 25/50	Rated Power @25 (mW)	Dissipation Factor(δ) (mW/)	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

Reliability Test

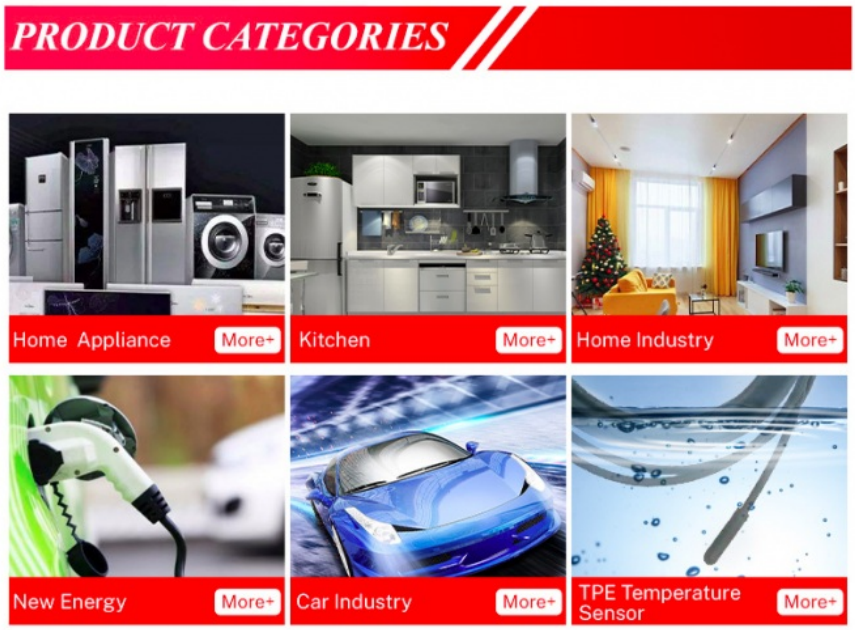
Test Item	Test Standard	Test method	Performance requirements

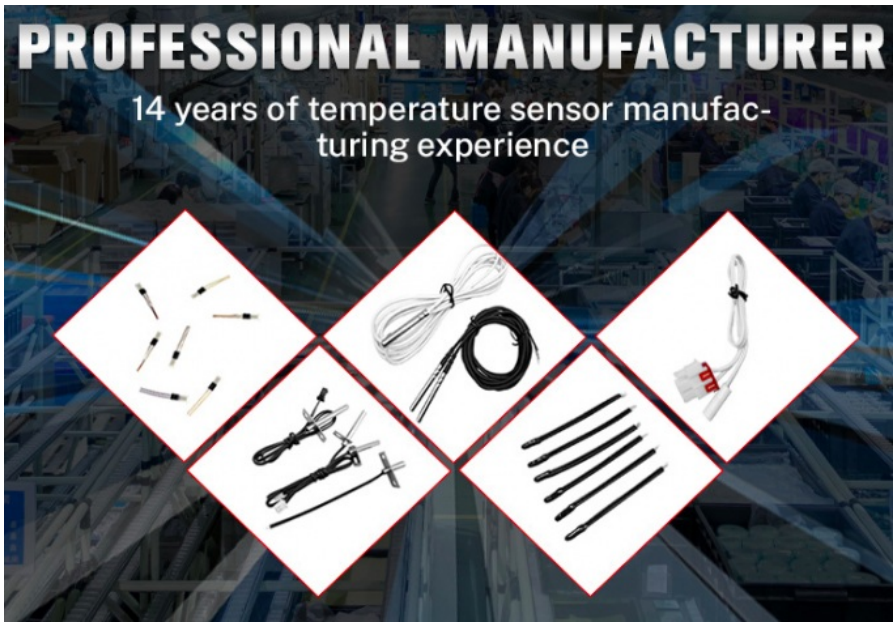
Zero Power Resistance	IEC 60539-1	Immerse samples in the constant temperature bath at 25 ±0.005 ,test steady resistance	Resistance tol ±1%
B value	IEC60 539-1	Immerse samples in the constant temperature bath at 25 ,50 (or 85), test steady resistance,and calculate B value	Resistance tol ±1%
Free fall	IEC60 068-2-32	Fall height: 1.5±0.1m,Surface: Cement , 1 time	No obvious damage, R25 △R/R≤±1%
Insulation	IEC60 539-1	500V pressure on insulation shell test insulation resistance	>500MOhm
Withstand voltage	IEC60 539-1	Withstand voltage: 1500V/AC ,Leakage current:2mA Lasting: 60sec	No obvious damage
Tension	IEC60 068-2-21	Pull uniform speed at the end, F>4.0KG(requested by customer)	No obvious damage, R25 △R/R≤±1%
Vibration	Q/HB m 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	IEC60 068-2-78	Temp:40±2 Humidity:92-95%RH Time:1000±24Hour	No obvious damage, R25 △R/R≤±1%
Thermal time constant	EC605 39-1	Immerse in 25 water,after thermal balance,immerse in 85 ,resistance arrives 63.2%,calculate total time	<10 sec
High temperature storage	IEC60 068-2-2	Temp:125 ±5 Time: 1000±24Hour	No obvious damage, R25 △R/R≤±1%
Cold and thermal shock	IEC60 068-2-14	-40 ~+125 T1:30min Cycle time:1000	No obvious damage, R25 △R/R≤±1%
Knock experiment	IEC60 068-2-77	Acceleration:250m/s2 Pulse lasting: 6ms Knock times: 1000 Recovery time: 2 Hour	No obvious damage, R25 △R/R≤±1%
Low temperature storage	IEC60 068-2-1	Temp: 40±2 Time: 1000±24Hour	No obvious damage, R25 △R/R≤±1%
Salt spray	IEC60 068-2-11	Temp: 35±2 Collection hour : 1.0mL~2.0mL Time: determine per as actual demand	No obvious damage, R25 △R/R≤±1%



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.





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