Electric Water Heater Temperature Sensor 50K 1% B3950 Hexagonal M8 Thread NTC Thermistor Probe

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
- 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
- Accracy: ±1%
- Application: Household Appliances
- Temperature Range: -40~120°C
- Feature: Excellent Moisture Resistance
- Resistance Tolerance: F±1%,G:±2%, H:±3%,J:±5%,K:±10%
- Highlight: **ROHS Household Temperature Sensor**, **Household Temperature Sensor Probe**, **Stable Kettle Thermal Probe**

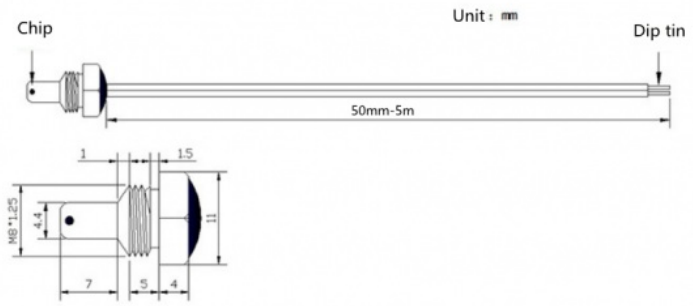
More Images

Product Description

Electric Water Heater Temperature Sensor 50K 1% B3950 Hexagonal M8 Thread NTC Thermistor Probe
►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.

product information
Product type: Hexagonal thread NTC temperature sensor
Product features: easy to install, threaded fixation
Model usage: temperature measurement/temperature control/overheat protection
Operating temperature range: -40~+150℃
Thermal time constant: about 12S
Water resistance: AC1800V*60S
Waterproof level: IP66
Product qualifications: Meet certification requirements
Product application scope:
Footbath, car water tank, floor heating thermostat, cleaning equipment, etc.
Product customization instructions:
(1) Resistance value of the product (nominal resistance value at 25°C, or others)
(2) Product accuracy (1%~5%)
(3) B value coefficient of the product
(4) Wire model and length (color, length, temperature resistance requirements)
(5) Wire tail specifications (tin dipped, socket plug-in, special specifications)
(6) Probe specifications and materials (nickel-plated copper, red copper, stainless steel, ABS plastic shell)
(7)Use temperature range



Product drawings are for reference only and can be customized according to required parameters, specifications and length. (Come with pictures and samples)

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

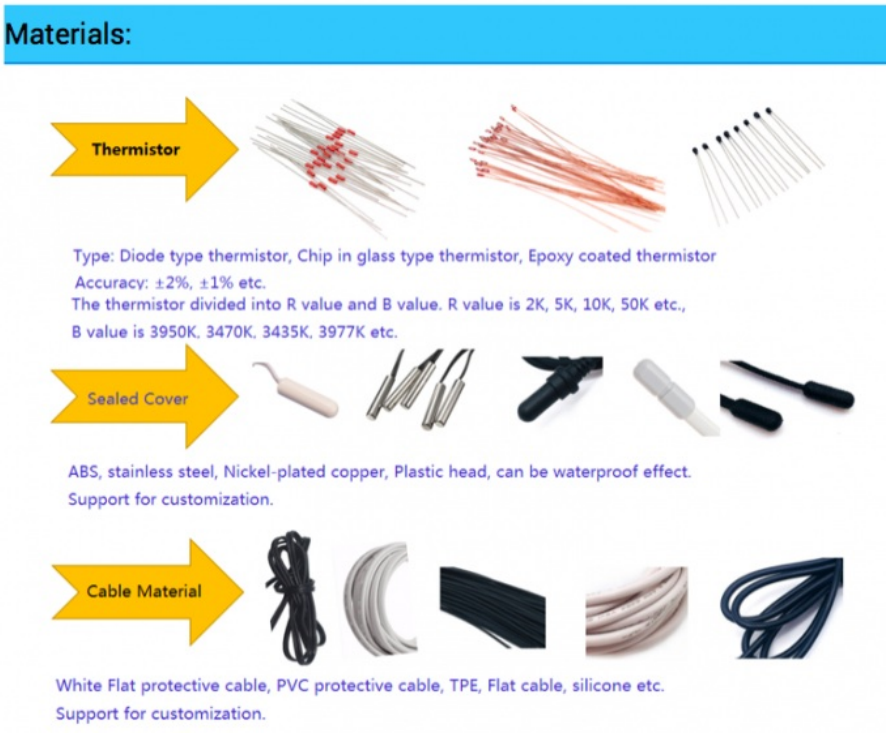
Conventional product electrical performance parameters

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

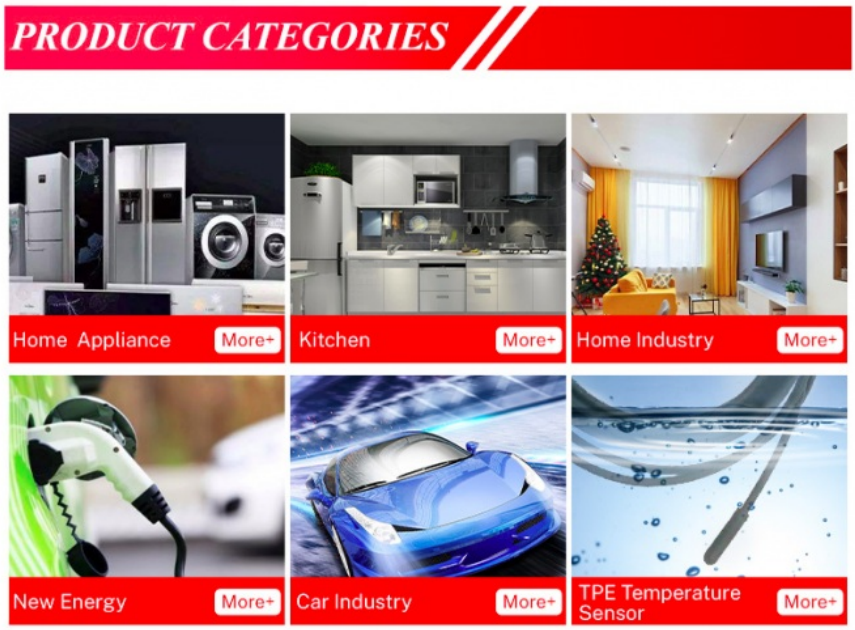
Test Item	Test Standard	Test method	Performance requirements

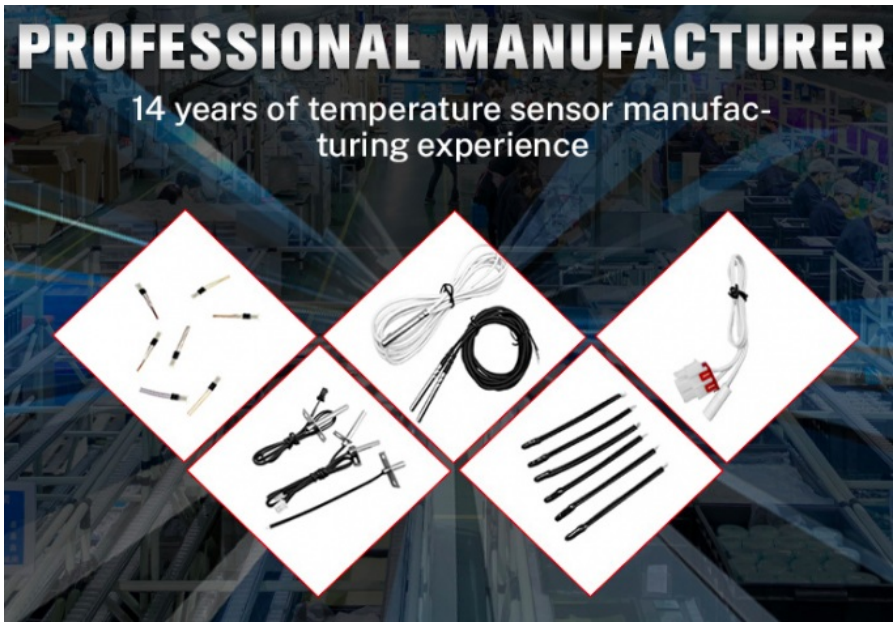
Zero Power Resistance	IEC 60539-1	Immerse samples in the constant temperature bath at 25℃±0.005℃,test steady resistance	Resistance tol ±1%
B value	IEC60539-1	Immerse samples in the constant temperature bath at 25℃,50℃(or 85℃), test steady resistance,and calculate B value	Resistance tol ±1%
Free fall	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%



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.





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