# 304 Stainless Steel M8 Thread Package 10K±1% B Value 3435 NTC **Temperature Sensor For Home Appliance Temperature Sensor**

## **Basic Information**

. Place of Origin: China LINKUN Brand Name: RoHS UL · Certification:

Model Number: CWF 103F3435/3950

• Minimum Order Quantity: 1000PCS • Price: Negotiation Negotiation · Packaging Details: • Delivery Time: 5-7 days

Payment Terms: T/T, L/C, Western Union . Supply Ability: 100,000 pieces/month



## **Product Specification**

• Product Name: NTC Temperature Sensor

Ressistance: 25°c=10K Ohm 3435/3950 Bvalue:

1%,2%,3%,5%,10% R Tolerance:

· Sample: Support PVC, XLPE, ... . Lead Wire:

Selectable Sensor Length:

Customize: Provide Sample Services

• Way To Install: Inserting 2 Years · Warranty: Head Color: Black ,White Max Power 100nmw Consumptionmw:

• Wire Length: Customized To Your Demands

Highlight: 304 stainless steel NTC temperature sensor,



## More Images







#### **Product Description**

## 304 stainless steel M8 thread package 10K±1% B value: 3435 NTC temperature sensor suitable for home appliance temperature sensor

NTC temperature sensor not only outputs temperature signal, but also integrates humidity measurement, and the signal output is also changed from the original single signal to a variety of output forms, which can carry out long-distance communication, data can be recorded according to needs, upper limit alarm and automatic control, etc. function.

The intelligent integrated NTC temperature sensor used today adopts single-chip microcomputer technology, which is equipped with multiple analog-to-digital signal converters. Its measurement accuracy is higher, and the resolution is as high as 0.03 degrees. It can also integrate a calendar clock to realize multiple measurement modes. The output is more standardized and standardized, which can effectively suppress the interference of the surrounding environment on the temperature signal output, making the measurement value more accurate.

## ► Design considerations and procedure of temperature sensor:

- 1. Choose the shape according 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**

Fast reponse time Moisture proof, waterproof Easily assemble Customized available

#### **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 Description**

Туре	NTC Temperature Sensor
Resisitance	1K~5M Ω(1k 5k 4.7k 10k 20k 30k 50k 100k 150k 200k 300k)Customized
Beta Value	3380k 3435k 3500k 3950k 4050k 4150k 4250k 4450k Customized
Housing	Cooper/Stainless/aluminum/Brass/Plastic/Nylon/Others Customized
Wire	20/22/24/26/28/30/32AWG PP/PVC/PTFE/PFA/TPE/FEP Customized
Connector	JST/SYP/MOLEX/DUPONT/TE Customized
Installation	Flanged/Surface/Threaded/Plastic/Straight/Film/LUG/SMD/THT Customized
Accuracy	0.1% 0.5% 1% 2% 3% 5% 10% Customized
Temperature range	-40~300 Customized
Wire Length	10mm~10000mm Customized



## **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.

## Conventional product electrical performance parameters

Dongguan Linkun Electronic Technology Co., Ltd.						
Mai	n technica	ıl parameters	s of sensor series the	mistor:		
Model	Rated resistanc e value (R25)		B value	Operating temperatur e	Dissipati on coefficien t	T he rm al ti m e co ns ta nt
	Resistan ce value (KΩ)		Nominal value (K)		(mW/°C)	(S )
CWF-102-3435	1		3435			П
CWF-202-3435	2		3435	1		Ш
CWF-2.252-3950	2.252		3950	1		Ш
CWF-472-3950	4.7		3950	1		Ш
CWF-502-3470	5		3470	]		Ш
CWF-502-3950	5		3950			Ш
CWF-682-3950	6.8		3950			
CWF-103-3435	10		3435			
CWF-103-3470	10		3470	]		
CWF-103-3600	10		3600			
CWF-103-3380	10		3380	]		
CWF-103-3977	10		3977			

CWF-153-3950 15 ±1% ±2% 3950 -40°C ≥3.0 in still air   CWF-203-3950 20   CWF-233-3950 23   CWF-303-3950 30   CWF-333-3977 33   CWF-403-3950 40   CWF-473-4013 47   CWF-503-3977 50							
CWF-153-3950 15 ±1% ±2% 3950 -40 C	CWF-103-4100	10		4100			≤6
CWF-203-3950 20   CWF-233-3950 23   CWF-303-3950 30   CWF-303-3950 30   CWF-303-3977 33   CWF-403-3950 40   CWF-473-4013 47   CWF-503-3977 50   3950 3950   4013 4013   3977 3977	CWF-153-3950	15	±1% ±2%	3950			1 - 1
CWF-233-3950 23   CWF-303-3950 30   CWF-333-3977 33   CWF-403-3950 40   CWF-473-4013 47   CWF-503-3977 50   3950   4013   3977	CWF-203-3950	20	±3% ±5%	3950	120°C	still air	sti
CWF-333-3977 33   CWF-403-3950 40   CWF-473-4013 47   CWF-503-3977 50   3950   4013   3977	CWF-233-3950	23		3950			ii
CWF-403-3950 40   CWF-473-4013 47   CWF-503-3977 50   3950   4013   3977	CWF-303-3950	30		3950			air
CWF-473-4013 47 4013 CWF-503-3977 50 3977	CWF-333-3977	33		3977			Ш
CWF-503-3977 50 3977	CWF-403-3950	40		3950			Ш
	CWF-473-4013	47		4013			Ш
014/5 500 0000 50	CWF-503-3977	50		3977			Ш
CWF-503-3990   50   3990	CWF-503-3990	50		3990			Ш
CWF-503-4050 50 4050	CWF-503-4050	50		4050			Ш
CWF-104-3950 100 3950	CWF-104-3950	100		3950			Ш
CWF-104-3990 100 3990	CWF-104-3990	100		3990			Ш
CWF-104-4200 100 4200	CWF-104-4200	100		4200			Ш
CWF-204-3892 200 3892	CWF-204-3892	200		3892			
CWF-204-3917 200 3917	CWF-204-3917	200		3917			Ш



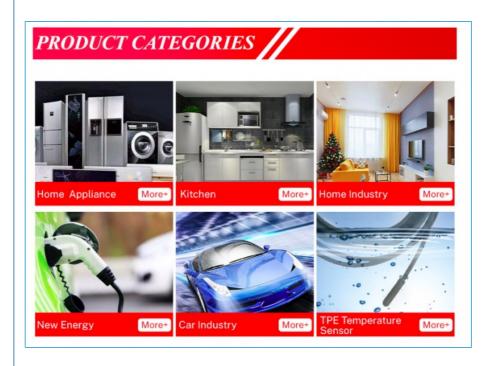
## Working principle of temperature sensor

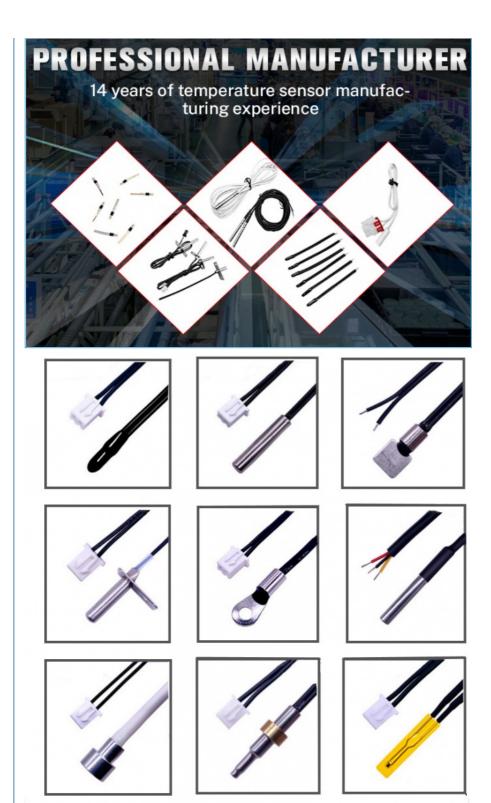
Using the NTC thermistor under a certain measurement power, the resistance value drops rapidly as the temperature rises. Utilizing this feature, the NTC thermistor can be used to determine the corresponding temperature by measuring its resistance value, so as to achieve the purpose of detecting and controlling 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°C±0.005°C,test steady resistance	Resistance tol ±1%
B value	IEC60539-1	Immerse samples in the constant temperature bath at 25°C,50°C(or 85°C), 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°C Humidity:92-95%RH Time:1000±24Hour	No obvious damage, R25 △R/R≤±1%
Thermal time constant	EC60539-1	Immerse in 25°C water,after thermal balance,immerse in 85°C,resistance arrives 63.2%,calculate total time	<10 sec
High temperature storage	IEC60068-2-2	Temp:125°C±5°C Time: 1000±24Hour	No obvious damage, R25 ∆R/R≤±1%
Cold and thermal shock	IEC60068-2-14	-40°C~+125°C 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°C Time: 1000±24Hour	No obvious damage, R25 △R/R≤±1%
Salt spray	IEC60068-2-11	Temp: 35±2°C Collection hour : 1.0mL~2.0mL Time: determine per as actual demand	No obvious damage, R25 △R/R≤±1%
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