



**JRSHR**  
**Humidity sensitive resistance sensor**  
**Data sheet**

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<b>Name</b>	<b>Humidity sensitive resistance</b>	<b>Ningbo jiangbei junrong electron technology Co., ltd product developed department</b>
<b>Model</b>	<b>JRSHR</b>	

## 1. General

It is a new type humidity sensitive element being adopted organic macromolecule materials ,with the characteristics of the wide humidity sensitive range, quick response, good ability against pollution, no need to be heated and washed, stable and reliable performance in long time use.

## 2. Application

Electron , Pharmaceutical industry, Food processing, Warehouses, Tobacco, Textile, Weather.

## 3. Shape

Detail to the picture

## 4. Specification

- |   |                          |
|---|--------------------------|
| (1) Power supply  | 1.5V AC (MAX, sine wave) |
| (2) Power   | 0.2mW (MAX, sine wave)   |
| (3) Frequency   | 500HZ~2KHZ               |
| (4) temperature   | 0 ~ 60°C                 |
| (5) Humidity  | under 95%RH              |
| (6) Relative humidity --- impedance feature * humidity measure accuracy |                          |

Based on the power supplied by 1V AC 1KHZ and the environment at 25°C

Humidity	%RH	60
Centre data	K Ω	31.0
Resistance range	K Ω	From 19.8 to 50.2
Humidity accuracy	%RH	±5

Remark: AC electric bridge testing

## 5. Testing condition

At atmosphere 25°C, power voltage supply 1V AC frequency 1KHZ. Put humiture sensor module in dry air at 25°C/0%RH environment for 30 minutes before testing, then put it into testing container keeping the Humidity 60%RH, 15 minutes later, measure the impedance

《Mensuration equipment》

diffluent -style humidity occurred devices: SHR-1 type

LCR electric bridge: DF2826

Measured by lines: 1 core shield Line

## 6. Stable testing

No.	Item	Testing Method	Specification
1	Down-lead intensity	0.5KG Down-lead pulled for 10 seconds	No damage, no element break off, normal electric feature

2	Impact-resistance	Drop from 1 meter high into hardwood floor, repeat for 3 times	No damage, no element break off, normal electric feature
3	Aseismatic	10~55Hz, swing 1.5mm(10~55Hz~10Hz) along X-Y-Z direction each for quivering test for 2 hours	No damage, no element break off, normal electric feature
4	Heat-resistant	Place it below 80℃, 30%RH environment 1000 hours	Within $\pm 5\%RH$
5	Cold-resistant	Place it below 10℃, 70%RH environment 1000 hours	Within $\pm 5\%RH$
6	Humidity-resistant	Place it at 40℃, 90%RH environment 1000 hours	Within $\pm 5\%RH$
7	Temperature loop	Place it at below 0℃ environment for 30 minutes, then put it at 50℃ environment for 30 minutes, and last place it again at below 0℃ environment 30 minutes. repeat above for 5 times.	Within $\pm 5\%RH$
8	Humidity loop	Place it at 25℃ 30%RH environment for 30 minutes, then put it at 90%RH environment for 30 minutes, and last place it again at 30%RH environment for 30 minutes. repeat above for 5 times.	Within $\pm 5\%RH$
9	Acid-resistant	At Normal temperature Ethanol gas: 30 minutes Acetone gas: 30 minutes	Within $\pm 5\%RH$
10	Electrify placement	Keep 1KHZ, 5VP-P, square wave for 1000 hours at normal temperature and humidity	Within $\pm 5\%RH$

**Remark: 1. Specification based on 60%RH Humidity change quantity**

**2. Place the product at normal temperature and humidity for 24 hours after all testing is over, then measure the humidity change quantity.**

#### 7. Standard of implement

People's Republic of China electron profession standard (can be used for approval)

(1) The SJ/T 10431-93 humidity sensitive element test the method with the humidity generator and humidity test method .

(2) the SJ/T 10432-93 electronic installation uses the resistance type humidity sensitive element first part: Total standard

(3) SJ/T 10433-93 combination resistance type wet sensitive part

second part: Minute standard: The electronic installation uses the

resistance type humidity sensitive element

(4) the SJ/T 10434-93 electronic installation uses the resistance type humidity sensitive part second part: Blank detailed standard: The combination resistance type wet sensitive element evaluates level E

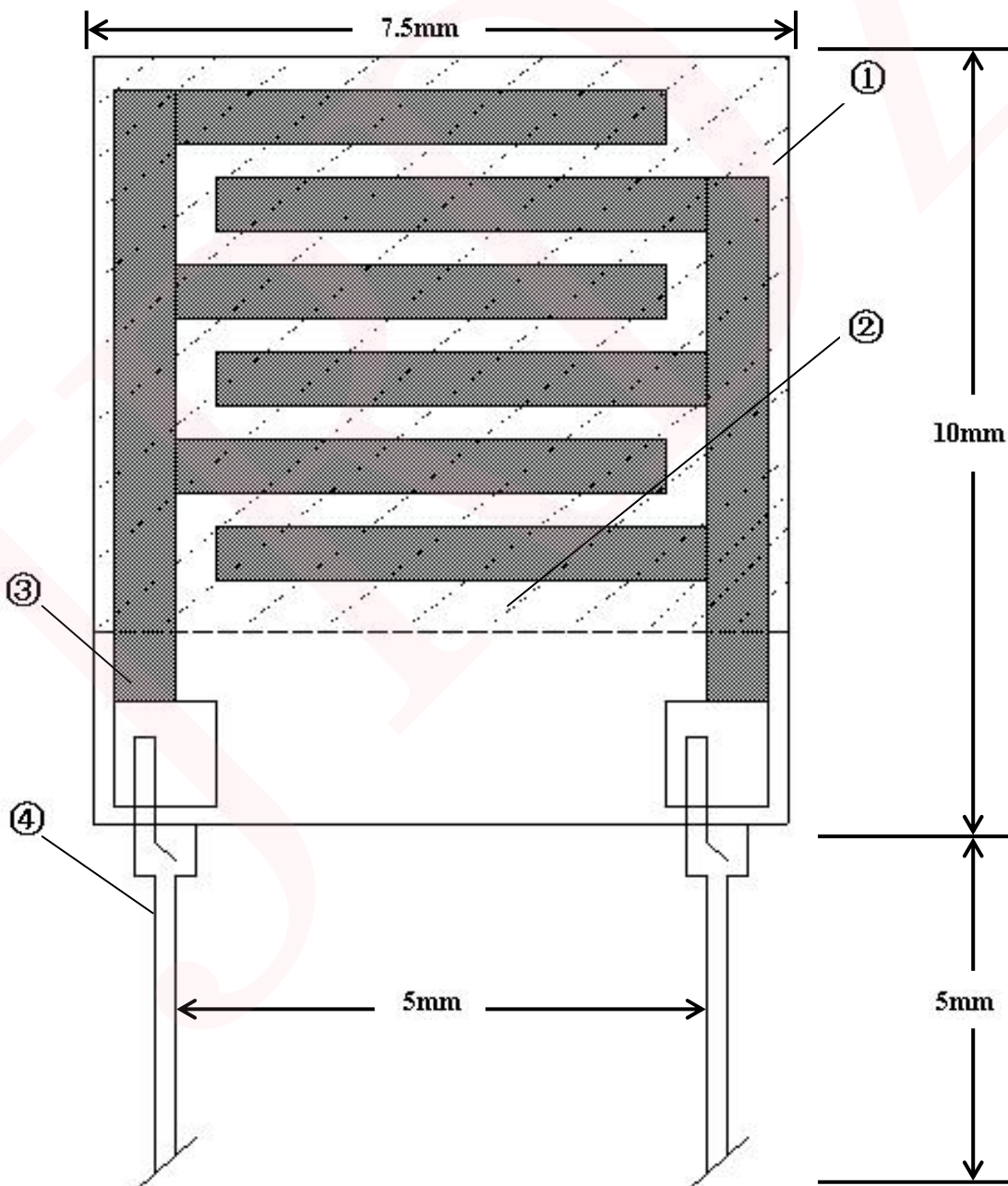
8. Note

- (1) Avoid polarizing, actuates the voltage or the electric current which the sensor uses should not include the direct current ingredient
- (2) Please make sure test with LCR AC, not direct currency multimeter.
- (3) Make sure use no dew point
- (4) Storage condition

Temperature range 10 ~ 40°C

Humidity under 60%RH

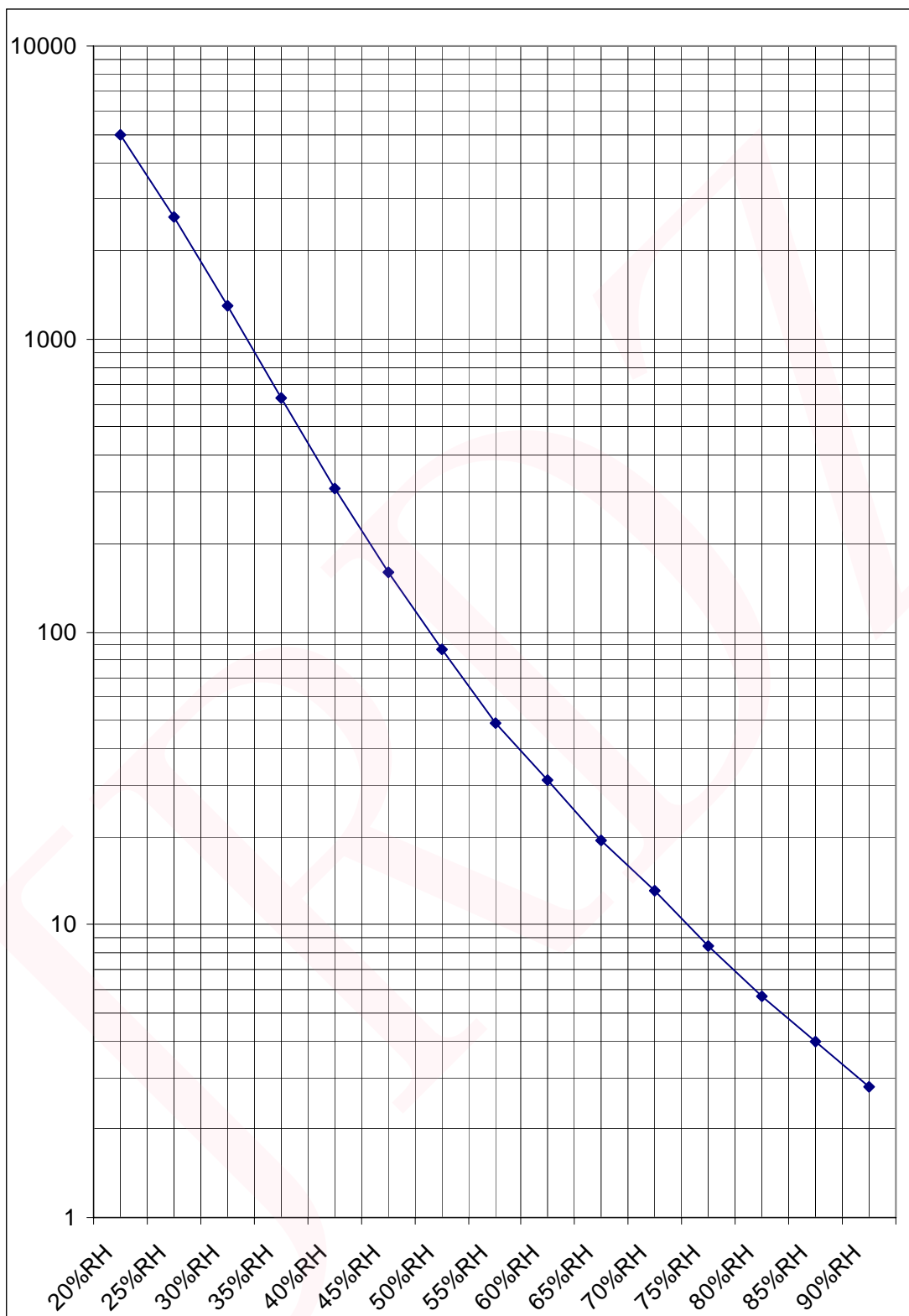
chart 1. shape dimension picture



Serial number	Name	Material	Colors
1	Ceramic based board	Ceramic	White
2	Induction wet membrane	Macromolecular materials	Clarity
3	Cross-type electrode	Carbon slurry	Black
4	Derivative feet	Metal	Argent



Chart2. relative humidity – impedance character



Electric impedance value R (KΩ)

