

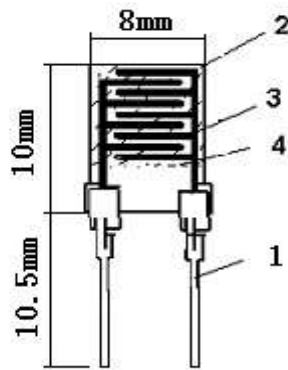
# GY-HR10X

## Humid resistance sensor Instruction

### 1. Production instruction:

**Product name:** macromolecule Humid resistance sensor (GY-HR10X), it's a new kind of humid resistance sensor, it has wide range of humidity, fast respond, high-sensitivity, stable and reliable performance, consistency characteristics.

### 2. Appearance size:



1—out 2—base 3—carbon pole 4—sensor

Fig.1 Appearance size

### 3. Scope of application:

Electronics, textiles, storage, tobacco, pharmaceutical, etc.  
Air conditioners, **Electronic Gifts** and other products, etc.

#### 4. Type:

No.	Type	standard characteristic resistance
1	GY-HR100	17K $\Omega$ (25°C, 60%RH)
2	GY-HR101	23 K $\Omega$ (25°C, 60%RH)
3	GY-HR102	31 K $\Omega$ (25°C, 60%RH)
4	GY-HR104	65 K $\Omega$ (25°C, 60%RH)

#### 5. Electric characteristic:

5.1 rate voltage: AC 1.5V (max, sine wave)

5.2 rate power: AC 0.2mW (max peak value, sine wave)

5.3 working frequency: 50Hz ~ 2000Hz

5.4 operating temperature range: 0°C ~ 60°C

5.5 operating humidity range: 0% ~ 95%RH

5.6 temperature characteristic:  $\leq 0.5\%RH/^\circ C$

5.7 hysteresis: within 2%RH

5.8 response time: humidity  $\leq 20S$ , dehumidify  $\leq 40S$

5.9 reliability:  $\leq 2\%RH/year$

5.10 Humidity accuracy:  $\leq \pm 5\%RH$

5.11 relative humidity - resistance characteristic (25°C, 1KHZ, AC1V, sine wave), as figure

**Notice:** when it is used in 85 ~ 120°C, it should be remarked, protection shell should be special made.

#### 6. Standard test condition:

6.1 Atmospheric, temperature of 25 degrees, measured as frequency 1KHZ, voltage IVAC (sine wave);

6.2 Positively don't impress DC to humidity sensor

6.3 The use of triage-style humidity devices (GY-1 type);

6.4 Measured by lines: 1 core shield line.

6.5 Avoid contact with hard objects or fingers to prevent pollution the component

6.6 Avoid use in salty air and anionic ionizer, inorganic gases, Sox, NOx, Ammonia, orgnic gases, alcohols, glycols, etc.

6.7 Welding conditions: 180°C, 3Second

6.8 Storage condition: temperature 10°C ~ 40°C, humidity: 20%RH ~ 90%RH

### 7. Stability test:

Use the value of 60%RH humidity change as standard. After the test, it should place in normal atmosphere temperature of the normal air for 24 hours, the testing data such as table.

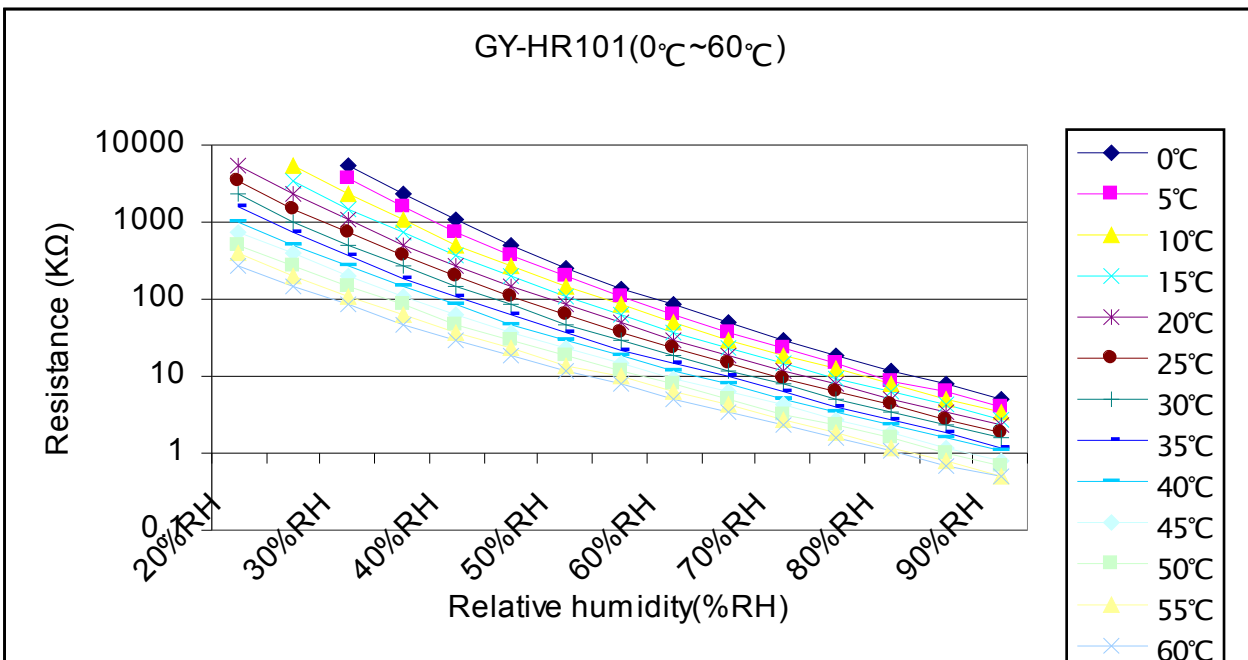
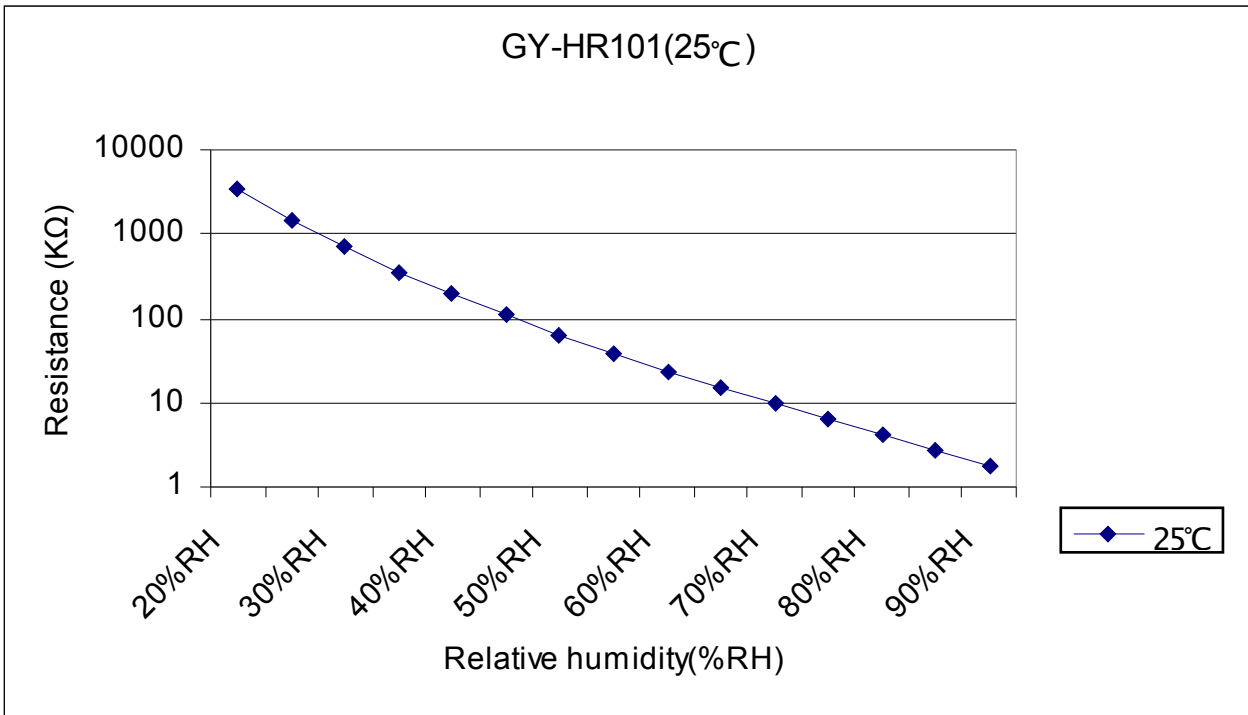


Fig.3 H-Z characteristic figure (23KΩ)