



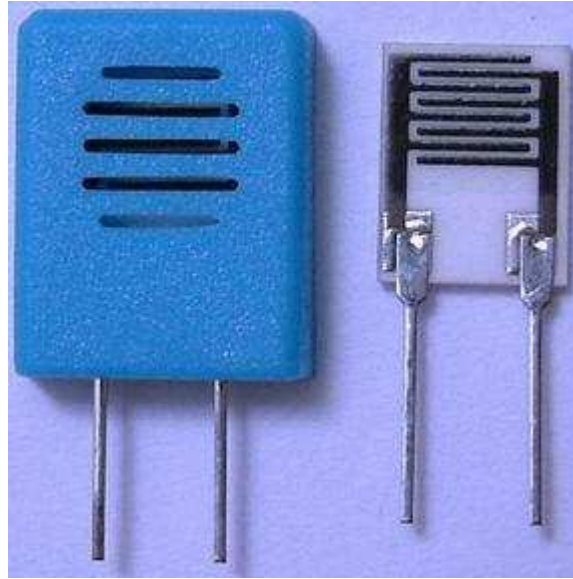
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Resistive humidity sensor, Model: HR202



1. HR202 is a new kind of humidity-sensitive resistor made from organic macromolecule materials, it can be used in occasions like: hospitals, storage, workshop, textile industry, tobaccos, pharmaceutical field, meteorology, etc.

2. Features:

Excellent linearity, low power consumption, wide measurement range, quick response, anti-pollution, high stability, high performance-price ratio.

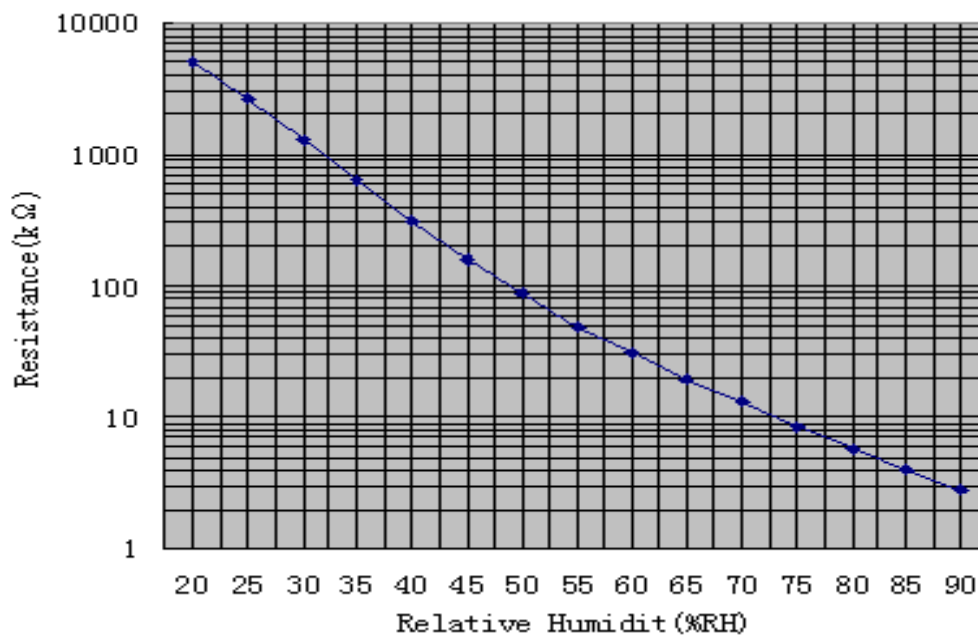
3. Technical Specification:

| | |
|----------------------|--|
| Operating range: | humidity(20-95%RH) temperature(0-60Celsius) |
| Power supply: | 1.5V AC(Max sine) |
| Operating frequency: | 500Hz-2kHz |
| Rated power: | 0.2mW(Max sine) |
| Central value: | 31k Ω (at 25Celsius, 1kHz ,1V AC, 60%RH) |
| Impedance range: | 19.8-50.2k Ω (at 25Celsius, 1kHz ,1V AC, 60%RH) |
| Accuracy: | +5%RH |
| Hysteresis: | +1%RH |
| Long-term stability: | +1%RH/year |
| Response time: | <10s |
| Dimensions: | with case 12*15*5mm, without case 8*10*0.7mm |

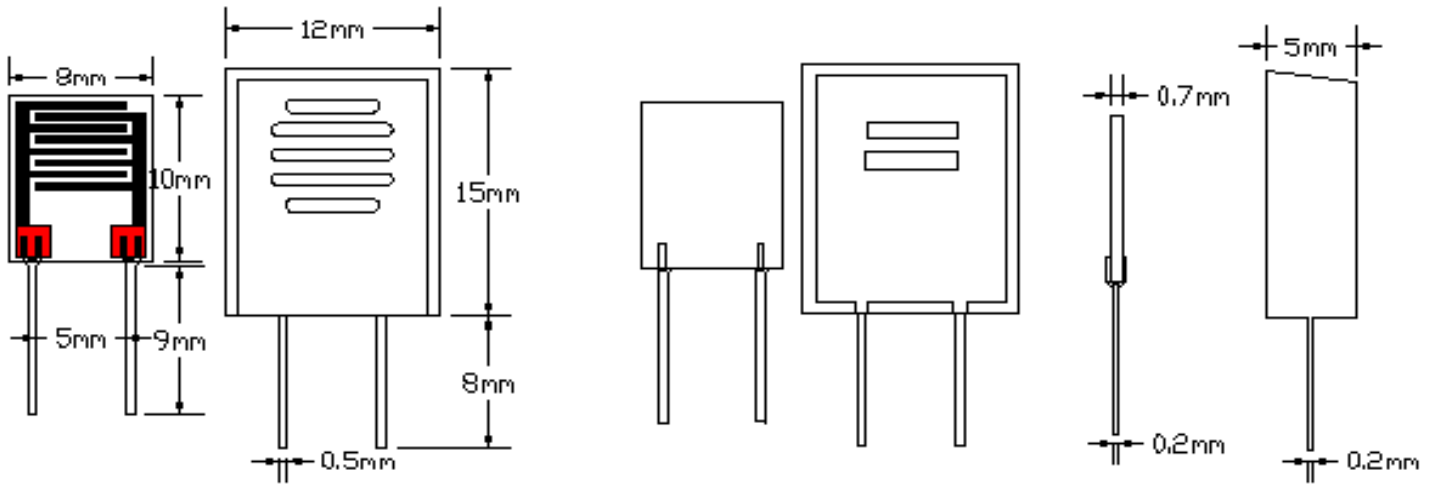
4. Performance parameter(at 1KHz) Unit: ohm

| | 0°C | 5°C | 10°C | 15°C | 20°C | 25°C | 30°C | 35°C | 40°C | 45°C | 50°C | 55°C | 60°C |
|-------|-------|-------|-------|------|-------|-------|-------|------|-------|-------|-------|-------|------|
| 20%RH | | | | 10M | 6.7M | 5.0M | 3.9M | 3.0M | 2.4M | 1.75M | 1.45M | 1.15M | 970K |
| 25%RH | | 10M | 7.0M | 5.0M | 3.4M | 2.6M | 1.9M | 1.5M | 1.1M | 880K | 700K | 560K | 450K |
| 30%RH | 6.4M | 4.6M | 3.2M | 2.3M | 1.75M | 1.3M | 970K | 740K | 570K | 420K | 340K | 270K | 215K |
| 35%RH | 2.9M | 2.1M | 1.5M | 1.1M | 850K | 630K | 460K | 380K | 280K | 210K | 170K | 130K | 150K |
| 40%RH | 1.4M | 1.0M | 750K | 540K | 420K | 310K | 235K | 190K | 140K | 110K | 88K | 70K | 57K |
| 45%RH | 700K | 500K | 380K | 280K | 210K | 160K | 125K | 100K | 78K | 64K | 50K | 41K | 34K |
| 50%RH | 370K | 26K | 200K | 150K | 115K | 87K | 69K | 56K | 45K | 38K | 31K | 25K | 21K |
| 55%RH | 190K | 140K | 110K | 84K | 64K | 49K | 39K | 33K | 27K | 24K | 19.5K | 17K | 14K |
| 60%RH | 105K | 80K | 62K | 50K | 39K | 31K | 25K | 20K | 17.5K | 15K | 13K | 11K | 9.4K |
| 65%RH | 62K | 48K | 37K | 30K | 24K | 19.5K | 16K | 13K | 11.5K | 10K | 8.6K | 7.6K | 6.8K |
| 70%RH | 38K | 30K | 24K | 19K | 15.5K | 13K | 10.5K | 9.0K | 8.0K | 7.0K | 6.0K | 5.4K | 4.8K |
| 75%RH | 23K | 18K | 15K | 12K | 10K | 8.4K | 7.2K | 6.2K | 5.6K | 4.9K | 4.2K | 3.8K | 3.4K |
| 80%RH | 15.5K | 12.0K | 10.0K | 8.0K | 7.0K | 5.7K | 5.0K | 4.3K | 3.9K | 3.4K | 3.0K | 2.7K | 2.5K |
| 85%RH | 10.5K | 8.2K | 6.8K | 5.5K | 4.8K | 4.0K | 3.5K | 3.1K | 2.8K | 2.4K | 2.1K | 1.9K | 1.8K |
| 90%RH | 7.1K | 5.3K | 4.7K | 4.0K | 3.3K | 2.8K | 2.5K | 2.2K | 2.0K | 1.8K | 1.55K | 1.4K | 1.3K |

5.Impedance performance (at25°C 1V AC 1kHz)



6.Dimensions



Cautions:

- (1) Avoid polarization, driving voltage or current should be 100% alternative.
- (2) Please measure the sensor with LCR alternative-current bridge, don't use multimeter.
- (3) Avoid dew condensation.
- (4) Recommended storage conditions: temperature 0-60Celsius; humidity <80%RH