

Soil temperature and humidity sensor SHT10 SHT20 sensor probe /SHEN-77  
agricultural greenhouse soil moisture sensor



connect cable :

Brown :VCC Black: GND Yellow :data Blue:CLK

Probe total length 77mm

- 1, imported sensors.
- 2, all with a 10k pull-up resistor and filter capacitor 0.1uf
- 3, all do double water treatment.
- 4, before the factory on 100% electric aging test.
- 5, cable: 50cm

1, this sensor can measure soil temperature and humidity?

A: The definition of soil moisture is to take one kilogram of soil samples, thorough drying, reduced weight (weight of water) and 1 kg of the ratio becomes soil moisture.

Relative humidity is defined as the percentage of saturated humidity absolute humidity and current temperature current temperature.

Fully air humidity with soil moisture is not a concept, nor is it an order of magnitude, while 10% soil moisture soil humidity of the air is already 100% up.

This sensor chip is sht10 or sht20, this chip is produced by the Swiss company air temperature and humidity sensor for measuring the relative humidity of the air. This sensor through a special treatment, long buried in the soil is not damaged, even if charged again boil the water will not be damaged, when faced with larger soil moisture, soil air humidity will long be 100%, measured on meaningless.

2, this sensor is soaked in water or condensation or buried in the earth whether damage?

A: We all were encapsulated sensor potting process, even with long-term immersion in water power will not be damaged, putting to dry the humidity is still normal acquisition.  
3, sensor measurements after potting whether there will be an error?

A: Some manufacturers of packaged non-professional probe will have the following questions:

- (1) Potting moisture absorption, especially in high humidity situations, once the increase of humidity does not drop down, because the potting lived in the reservoir water.
- (2) After soldering, without making a resurgence treatment (many manufacturers even heard of the word), temperature and humidity cause large error.
- (3) with temperature encapsulants, potting layer cracks caused by oxidation time, after dew drop caused by electrophoresis in the surface of the circuit board to form a fault.

**we have sht10 and sht20 two kinds ,please leave a message about your need ,or we will default sht10 sensor.**

**Probe length 77mm**

- 1, imported sensors.
- 2, all with a 10k pull-up resistor and 0.1uf filter capacitor
- 3, all do double water treatment.
- 4, 100% power on the aging, inspection.

**This section of air temperature and humidity sensors, the overall do double water treatment, a thorough anti-condensation damage. NOTE: The sensor is also measured in the soil even if buried in the soil air. Of the relative humidity, rather than soil moisture.**

**1, the sensor can measure the soil temperature and humidity?**

answer: **Soil moisture is defined as 1 kg soil sample, thoroughly dried, reduced weight (water weight) and 1 kg of the ratio. Said for soil moisture.**

**In this case, Air relative humidity is defined as the absolute humidity at the current temperature as a percentage of the saturated humidity at the current temperature.**

**In summary, soil moisture and air humidity is not a concept, nor an order of magnitude, 10% of soil moisture when the soil moisture in the air has been 100%. In this case,**

The internal chip sensor sht10 or sht20, this chip is Switzerland's Spirit Ryan's air temperature and humidity sensors, measuring the relative humidity of the air. This sensor has undergone special treatment, **Long-term buried in the soil will not be damaged, even if the water re-boiled water will not be damaged (the company's exclusive commitment)** When the humidity is slightly larger in the face of the soil, the soil humidity will be 100% long-term, the measurement will lose its meaning.

**2, this sensor bubble in the water or condensation or buried in the soil will be damaged?**

A: We package the sensor **All** The potting treatment, even with a long-term immersion in water will not be damaged, remove it, dry the humidity is still normal collection.

**3, potting after the sensor measurement results will be errors?**

A: Some non-professional manufacturers of the probe package will have the following questions:

- (1) potting moisture absorption, especially in high humidity occasions, once the humidity is not down after the increase, because the potting gel in the water.
- (2) after welding, do not do the resurgence of treatment (many manufacturers have not even heard the word), resulting in a large temperature and humidity error.
- (3) potting with the temperature, long-term oxidation of potting layer caused by cracking, condensation after the surface of the water droplets in the circuit board electrophoresis, the formation of failure.

**In this case, The company's products completely overcome the above common problems, it is recommended that you carefully identify the purchase of products. Asked each technical details, for their own products, Put an end to certain businesses "Fudge" We welcome the technical discussion.**

**4, what is double waterproof?**

A: Our copper sheath is sintered or PE material, characterized by waterproof breathable, **Water molecules can enter the sheath, water droplets due to surface tension can not enter the sheath.** In the case of high humidity, when the ambient temperature decreases, the water molecules inside the sheath will condense to form water. If the water droplets attached to the circuit board, it may make the circuit board electrophoresis and damage, so the company carried out on the circuit board potting, and the use of special potting material, the measured value without any

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