

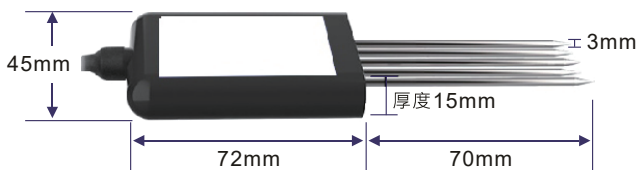
- Can directly measure the electrical conductivity of soil, water fertilizer integrated solution, and other nutrient solutions and substrates.
- The electrode is made of specially treated alloy material, which can withstand strong external impact and is not easily damaged.
- Completely sealed, resistant to acid and alkali corrosion, can be buried in soil or directly immersed in water for long-term dynamic testing.
- High precision, fast response, good interchangeability, probe insertion design, ensuring precise measurement and reliable performance.
- Complete protection circuit and optional multiple signal output ports.



SPECIFICATION

- ◆ Measuring Range: -40.0~80.0°C
0~99.9%
0~10000 us/cm
- ◆ Accuracy: Temp.: $\pm 0.5^{\circ}\text{C}$
Humidity: $\pm 3\%$ (<50), $\pm 5\%$ (>50)
EC: $\pm 3\%$
- ◆ Power: DC 10~30V
- ◆ Work Environment: 0~60°C/ Below 80%R.H.
- ◆ Storage Environment: -10~70°C/ Below 70% R.H.
- ◆ Output: RS-485

DIMENSION



RS-485 COMMUNICATION

Address : 1 ~ 64
Baudrate : 9600, 19.2K
Frame : N.8.2, N.8.1
Protocol : Modbus RTU Mode

CALCULATION METHODS OF SOIL MOISTURE

The soil moisture calculated by this sensor is the soil volumetric moisture content, which refers to "soil moisture" and "soil moisture".

The calculation method for soil volume water content is the ratio of the volume of water in the soil to the total volume of soil 0% represents completely dry soil with no moisture, 100% represents completely water without any soil.

ORDER INFORMATION

DST- Code1	Code1	Output
	2A	4~20mA
	Y	RS-485

WIRING CONNECTION

- RS-485
Red: Power+ 12~24V
Black: Power-
Yellow: RS-485+
Green: RS-485-
- 4~20mAdc
Brown: Power+ 10~30V
Black: Power-
Yellow: Humidity output
Blue: Electrical conductivity output

PRECAUTION

1. During measurement, all steel needles must be inserted into the soil.
2. Avoid direct exposure to strong sunlight on the sensor, which may cause excessive temperature. Pay attention to lightning strikes during outdoor use.
3. The protection level of the sensor is IP68, which can immerse the entire sensor in water.
4. There is radio frequency electromagnetic radiation in the air, and it is not advisable to be in an energized state in the air for a long time.

Soil Transmitter Ver.a0.1

MODBUS RTU ADDRESS

ADDRESS	CODE	Function	Unit	Sign	Range	Register Description
0004H	00H	土壤溼度	0.1%RH	Unsign	0~1000	
0005H	00H	土壤溫度	0.1°C	Sign	-400~800	
0006H	00H	土壤電導率	1us/cm	Unsign	0~10000	
003EH	03H/06H	設備地址		Unsign	1~249	
003FH	03H/06H	Baudrate		Unsign	24:2400 48:4800 96:9600 192:19200	