RK520-02 Soil Moisture, Temperature & EC Sensor

www.rikasensor.com

RK520-02 Soil Moisture, Temperature & EC Sensor is integrated the moisture, temperature & EC measurement.The stainless steel probe is inserted into soil surface or soil profile to test quickly. The product with temperature compensation to ensure the accuracy of measurement. The probe can be permanently embedded underground and be connected to a data logger for unlimited testing.

FEATURES

- High precision
- Fast response
- Suitable for saline-alkali soil
- Can work long-term immersion
- Soil properties affect little
- Directly buried in soil
- Widely used

APPLICATIONS

- Agriculture irrigation
- Greenhouse
- Grass farm
- Environment monitoring
- Water conservation
- Soil testing

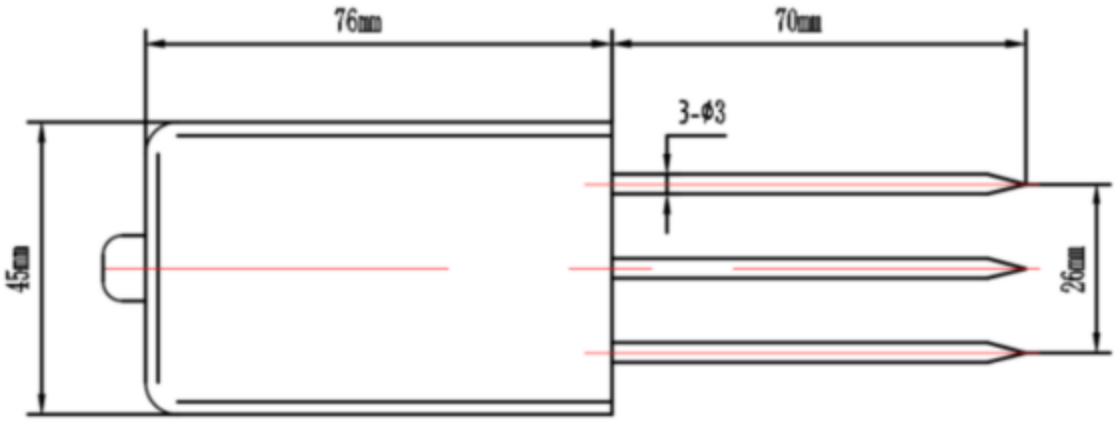
TECHNICAL SPECIFICATION

Item	Technical Specification		
	Moisture	Temperature	EC
Range	0-50%,0-100%	-30℃-+70℃	0-5000us/cm,10000us/cm, 20000us/cm
Accuracy	±2%(0-50%) ±3%(51-100%)	±0.5℃	±3%FS
Resolution	0-50%:0.03%,50-100%:1%	0.1℃	0.01mS/cm
Output Signal	Analog Voltage 0-2V,RS485 Modbus, SDI-12		
Supply	3.6-30VDC, 5-24VDC(SDI-12)		
Power Consumption	6mA@12V DC		
Measurement Technique	Moisture by FDR and EC by AC excitation		
Installation	Surface or buried installation		
Effective measurement area	With the center of the probe diameter is 70mm, high 70mm cylinder		
Housing	ABS		
Dimensions	45*15*145mm(probe:3* Ø3*70mm)		
Operating Temperature	-40℃-+80℃		
Ingress Protection	IP68		
Storage	-20-60℃@20%-90%RH		

Probe material	316L stainless steel
Sensor Sealed	Epoxy resin

DIMENSIONS

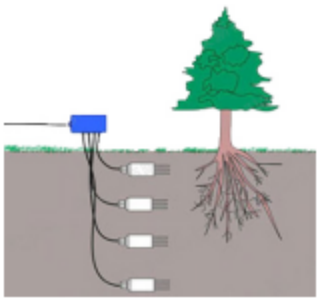
Unit:mm



MOUNTING

1. Choose a suitable measurement location, avoid rocks, and ensure that the electrode does not touch hard objects such as rocks.
2. Dig open the surface soil according to the required measurement depth, maintain the original tightness of the soil below, firmly grip the sensor body and insert it vertically into the soil. During insertion, do not shake it back, forth, left, or right to ensure close contact with the soil.

Underground measurement method: Dig a pit with a diameter greater than 20 centimeters vertically according to the required depth, and then insert the sensor steel needle horizontally into the pit wall at the predetermined depth. Fill and compact the pit to ensure that the electrode is in close contact with the soil.



Revision time	Reviser	Current Version	Remarks
20250428	Lee	V5.0	