Mottech Water Management

MOTOROLA SOLUTIONS

Mottech Soil Moisture & Temperature Sensor

Integrate the moisture and temperature measurement.

The stainless steel probe is inserted into soil surface or soil profile to test soil moisture and temperature quickly. Moisture measurement part is designed on the basis of the principle of FDR, by measuring the dielectric constant of the soil in order to measure the volume of the soil moisture content, temperature part adopts precision platinum resistance element, the product built-in drift calibration and temperature compensation circuit, can adapt to most applications. The probe can be permanently embedded underground and be connected to one of the field control units that will transfer the information to the cloud.

The Soil Moisture & Temperature Sensor can be connected directly to any controller in Mottech's system via analog input or Mottech Smart Card.

Features and Benefits

High precision

Fast response

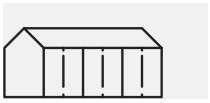
Widely used

Soil properties affect little

Directly buried in soil

Applications

Agriculture irrigation



Greenhouse

Water conservation

Environment monitoring

Soil testing

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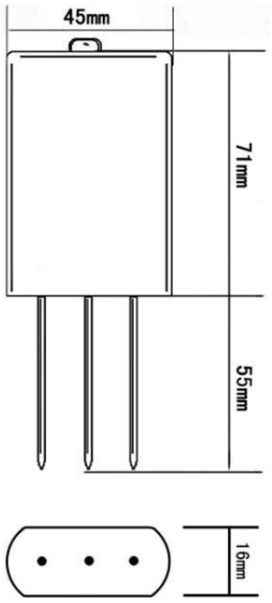
Technical specification

	Moisture	Temperature
Range	0-100% (m^3/m^3°C)	-30°C - +70°C
Accuracy	±3%(0-50%)	±0.3°C
Output Signal	4-20mA ,0-5V,0-2V,RS485 optional	
Response Time	<1s	
Supply	5VDC, 12-24VDC	
Effective measurement area	With the center of the probe diameter is 70mm, high 70mm cylinder	
Housing	ABS	
Dimensions	71*45*16mm(probe:2* Ø3*55mm,1*Ø4*55mm)	
Operating Temperature	-40°C - +80°C	
Ingress Protection	IP68	
Storage	10-60°C@20%-90%RH	
Probe material	316L stainless steel	
Code	M.SENS-81-A	

Dimensions



Mounting

1. Testing medium should be with uniform intensity.
2. If surface soil water content measurement, the sensor should be insert into soil vertically. Do not shake the sensor when inserted, otherwise the probe will be blended;
3. If multi-layer soil water content measurement, the sensor should be buried in the soil and parallel to the ground. Make sure the probe not be blended;
4. When removing sensors from the soil, please hold the sensor housing shell and do not forcibly pull on the cable. Soil on probes should be brushed tightly.
5. Please keep the sensor in dry & clean conditions.