

# Mottech Soil Moisture Sensor



**Mottech Soil Moisture sensor is a high accuracy, high sensitivity of soil moisture measuring instrument.**

The product on the principle of electromagnetic pulse (FDR: Frequency Domain Reflectometry) to measure the dielectric constant of the soil, stainless steel probe is inserted into the soil surface or soil profile to quickly online measurement of soil volumetric moisture content, the method is the most popular method of soil moisture measurement. It can be used permanently embedded in the soil. Soil moisture sensor can be widely applied to the soil moisture monitoring, water-saving irrigation, greenhouse control, fine agriculture, hydrology and meteorology, and other fields, road monitoring.

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

## Features and Benefits

**Four 316L needle probe**



**High stability**



**High accuracy**



**Fast response**



**Easy Installation**



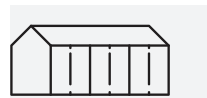
**Is not affected by chemical fertilizer & the influence of metal ions**



## Applications



**Agriculture irrigation**



**Greenhouse**



**Water conservation**



**Environment monitoring**



**Soil testing**

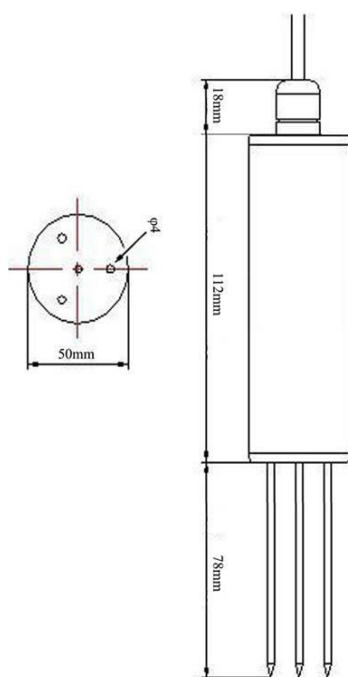


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## Technical specification

Item	Technical Specification
<b>Range(m<sup>3</sup>/m<sup>3</sup>)</b>	0-100%, 0-50%, 0-30%
<b>Accuracy</b>	±2%(0-50%)
<b>Output Signal</b>	4-20mA, 0-5V, 0-2V, RS485 optional
<b>Response Time</b>	<1s
<b>Supply</b>	5V, 12-24VDC
<b>Effective measurement area</b>	With the center of the probe diameter is 70mm, high 70mm cylinder
<b>Housing</b>	ABS
<b>Dimensions</b>	Ø50*208mm(probe: Ø4*78mm)
<b>Operating Temperature</b>	-30°C-+70°C
<b>Ingress Protection</b>	IP67
<b>Storage</b>	10-60°C@20%-90%RH
<b>Probe material</b>	316L stainless steel
<b>Code</b>	M.SENS-86-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.

