

Soil Moisture Monitoring



SPECIFICATION

BUSINESS FIELD

- LANDSCAPE & TURF
- GREENHOUSE, NURSERY & INDUSTRIAL
- AGRICULTURE
- GOLF



Soil Moisture Monitoring maintains Tucor's lead at the forefront of the water conservation and plant health movement. By using sensors embedded in the soil root zone, Tucor controllers are able to continuously monitor the soil for the proper amount of moisture, specific to your particular location and your plants' needs. Installed along with any of our various ET devices, Tucor's Cycle Manager software (patent pending) will ensure that your soil both starts and remains at the proper moisture content, even as the ET feedback adjusts your irrigation around that optimal level.

Tucor's Soil Moisture Monitoring devices come in two styles:

- The Sensor, which measures one moisture level within the soil.
- The Probe, which incorporates multiple sensors within one housing for a range of measurements in a depth of soil.

Whichever method you use, Soil Moisture Monitoring will ensure that Tucor controllers will economically deliver just the water your plants need to stay healthy and green.

SMS Sensor (SMS-100):

The SMS-100 is a single-sensor design. Buried within the root zone, the SMS-100 will continuously monitor the moisture content and provide feedback to the Tucor controller. Compensation factors are included for a range of soil types. Dimensions (approx.): 7" x 0.6" x 2.75"

SMP Probe (SMP-12):

The SMP Probe length is 12". The probe contains six sensors, spaced 2" apart. Using multiple sensors within the probe permits the measurement of moisture levels within a depth of soil.



Tucor Soil Moisture Sensor SMS-100



Tucor Soil Moisture Probe SMP-12

Tucor's Patented Total Cycle Management System

PRINCIPAL

Wet soils when watered using ET tend to stay wet and dry soils when watered using ET tend to stay dry. The principal of this patented technology is that high moisture readings of the soils shall reduce the ET applied to the ET balance and low moisture readings shall increase the ET applied to the ET balance. TCM adjusts the frequency and duration of ET based irrigation cycles.



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Soil Moisture Monitoring

Specifications:

Hardware and environment:

Cable length: 13'; extendable to 2000'
 Operating temperature: 23°F - 122°F

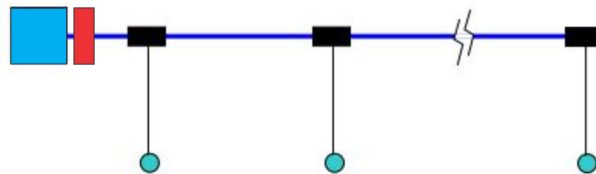
Operations and features:

- All sensors within each probe can be monitored and the moisture levels and soil temperatures recorded. Results are displayed in a color-coded spreadsheet for quick analysis. Email alarms may be sent under certain fault conditions.*
- One sensor per device (SMP or SMS), selectable by the user, can be used as the reference point to interrupt irrigation.
- Each device can be assigned to interrupt one or more Programs.
- Each device can affect ET balance (for controllers using ET).
- Up to 10 devices may be connected to the controller.

- All sensors can be monitored (e.g., ten SMP 12's, each with 6 sensors).
- One SMI-232 interface board is required for each controller.
- The communication wire must be approved Tucor cable. Use Paige P7171D or equivalent.
- All devices must be connected to a single extension cable. The maximum distance from controller is 2000'. The maximum distance of the device from the extension cable is 13'.
- A RealNet subscription is required to enable data monitoring. All other features may be programmed at the controller.
- Moisture Sensors may not be used in conjunction with an RKD-RFA-200 remote control.
- Connections from the probes to the communication wire are to be made with standard DBYs in a valve box (4 per connection).

Application:

RK+ Series Controllers
 LTD Controller



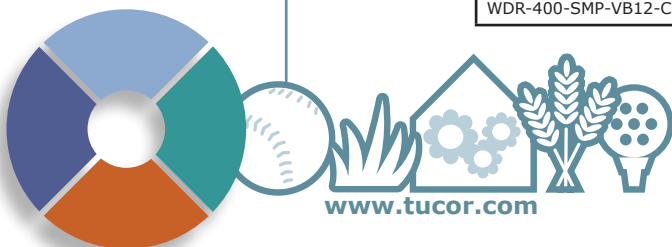
Symbol	Name
	Tucor Controller
	Soil Moisture Sensor or Probe with 13' cable
	Waterproof connection
	Communications Wire
	SMI-232 Interface

How to Order:

SOIL MOISTURE MONITORING	
Part Number	Product Description
SMI-232	Soil Moisture Interface Supports up to 10 sensors 1/controller
SMI-SP	Surge Protector
SMS-100	Single Soil Moisture and Temperature Sensor with cable
SMP-12-AT	12" Turf Soil Moisture and Temperature Probe, 6 sensors, with cable
WDR-400-SMP-VB12-C	Groun Level Wireless Device with ceramic antenna

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More information:
 www.tucor.com



* Data monitoring, recording, and alarming requires a RealNet subscription.