

SMRT-Y Soil Moisture Sensor Kit

Accurate • Reliable • Smart

The SMRT-Y Soil Moisture Sensor kit adds closed-loop feedback to irrigation systems, conserving water through digital measurement of the soil's volumetric water content. The sensor takes soil moisture readings every 10 minutes. When the sensor detects dry conditions prior to the normal watering cycle, that cycle is allowed. When the soil is above the set moisture threshold, the watering cycle is suspended to avoid overwatering.

Key Benefits

- Turns any controller into a water saving smart controller
- Healthier landscapes less prone to nutrient depletion, fungus and shallow root growth
- Typical water savings exceed 40%
- Primary components (sold as kit):
 - In-Ground Soil Moisture Sensor
 - Sensor User Interface
- TDT digital sensor enables highly accurate readings that are independent of soil temperature and electrical conductivity (EC)
- Displays soil moisture content, soil temperature and EC

Advanced TDT Digital Soil Moisture Sensor

- Sensor uses Time Domain Transmissometry (TDT) and digital signal processing to measure soil moisture content accurately and consistently
- Corrosion-resistant in-ground sensor made of high-grade 304 stainless steel
- No maintenance sensor – just bury and forget
- Reads absolute – rather than relative – Volumetric Water Content (0-100%)
- Moisture readings remain stable as soil salinity and temperature change
- Sensor never needs calibration

User Interface with LCD Readout

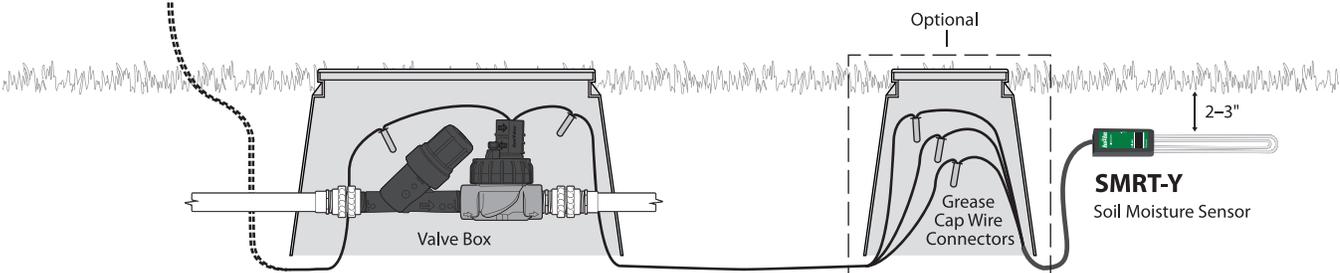
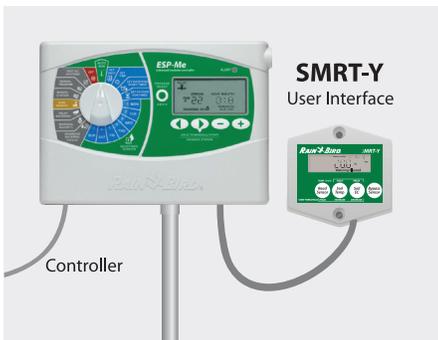
- Touchpad keys with digital LCD readout displays:
 - Absolute Volumetric Water Content, 0-100%
 - Soil temperature in Fahrenheit or Celsius
 - Soil conductivity in dS/m
 - Seven-cycle irrigation history
 - Suspended/allowed watering indicator
 - Bypass mode indicator
- Automatic moisture threshold setting with increase/decrease adjustment
- Sensor bypass touchpad key for easy deactivation
- Up to two independent zones can be isolated from sensor
- Designed for outdoor installation



How To Specify

SMRT-Y

Model
 SMRT-Y Soil Moisture Sensor Kit
 SMRT-YI International Soil Moisture Sensor Kit



Operating Specifications

- 25 Volts AC at 12W
- Operating temperature range: -4°F to 158°F (-20°C to 70°C)
- Survival temperature range: -40°F to 185°F (-40°C to 85°C)
- UL, CUL, C-TICK certifications

Dimensions

Sensor Control

- Overall Width: 3.0" (76mm)
- Overall Height: 3.0" (76mm)
- Overall Depth: 0.75" (19mm)

In-Ground Soil Moisture Sensor

(without wires)

- Overall Width: 2.0" (50mm)
- Overall Length: 8.0" (200mm)
- Overall Depth: 0.5" (12mm)

SMRT-Y Kit

Includes

- Controller User Interface
- In-Ground Soil Moisture Sensor
- Anodized, rust-proof screws, 1.5" (two per package)
- Wire nuts – 5 blue, 2 gray, 1 yellow
- Multilingual instruction manual, "Quick Start" Guide and sticker that reads: "This controller is connected to a Rain Bird Soil Moisture Sensor"



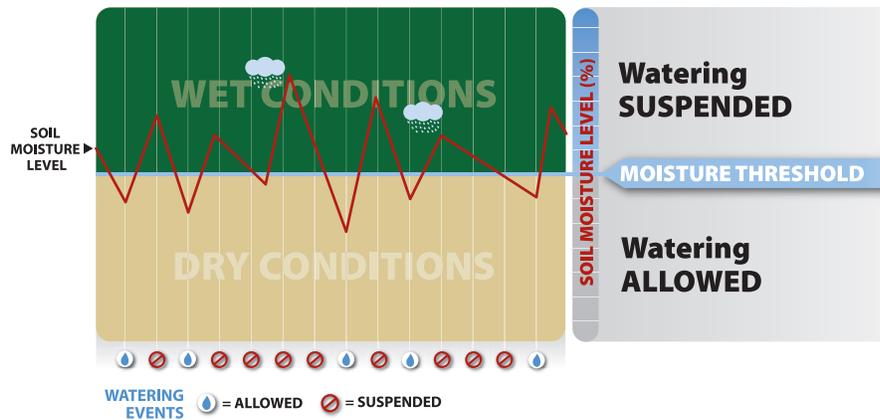
Technical Specifications

The SMRT-Y Soil Moisture Sensor shall be a watering control device for use with a standard 24-Volt AC irrigation controller. It shall take digital readings every 10 minutes of soil Volumetric Water Content (VWC) utilizing advanced Time Domain Transmissometry (TDT) digital signal processing that delivers accurate readings independent of soil temperature and electrical conductivity.

It shall consist of a 304 stainless steel digital Soil Moisture Sensor and a User Interface. In operation, the SMRT-Y Soil Moisture Sensor shall only allow a programmed watering cycle when the soil moisture drops below a set moisture threshold. When the moisture

is above that threshold, the SMRT-Y Soil Moisture Sensor shall suspend the normal watering cycle by interrupting the common line to the valve solenoids.

Features shall include automatic setting of soil moisture threshold with increase/decrease adjustment as well as bypass mode. User interface shall enable instant readings of soil moisture, temperature and electrical conductivity plus review of 7-cycle watering history. The SMRT-Y Soil Moisture Sensor shall be sold by Rain Bird Corporation.



Operating Principle

When soil moisture is above the preset threshold, the irrigation cycle is suspended. When moisture falls below that level, the regular watering cycle is allowed.

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The Intelligent Use of Water™
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