

## FEATURES

- High resolution allows daily or hourly tracking of water use
- Analogue current loop output proportional to soil water content
- Low sensitivity to salt – unaffected by soil salinity less than 8 dS/m
- Output unaffected by soil temperature
- Low-cost dielectric water content sensor

## SPECIFICATIONS

### Measurement units:

Volumetric Soil Moisture % (VSW%)

**Range:** Zero to saturated (0-100% VSW)

**Measurement time:** 3sec

**Accuracy:** ±3% typical, ±1% with soil specific calibration

**Output Range:** 4mA (dry soil) to 20mA (saturated)

### Dimensions

#### MP406 Probe:

**Total length:** 215 mm

**Needle length:** 60 mm

**Needle separation:** 14 mm

**Needles:** Stainless Steel

**Exterior:** ABS Plastic



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# MP406C Soil Moisture Sensor

## Integrated 4-20mA Output for Irrigation Control

## Soil Moisture and Irrigation Control

Measuring soil moisture content helps determine when to irrigate, how much water to apply, depth of wetting, patterns of soil moisture extraction by roots, and trends in soil moisture content with time. Soil moisture determines the transport and storage of dissolved nutrients and pollutants and the availability of water to plants.

### Soil Water Content

MP406 soil moisture sensor measures dielectric permittivity of the surrounding medium. In soil, dielectric permittivity is directly related to the water content.

The MP406C with integrated 4–20 mA output interface has an analogue current loop output of 4–20 mA which can be used directly by industry standard irrigation controllers and cabling power systems and hence is ideal for use in Parks and Gardens, Golf Courses and similar installations.

### Irrigation Control at One or Two Depths

The combinations of one or two MP406C sensors and 4-20 mA output enables connection to an irrigation controller to control the switching of sprinklers on and off. A single MP406C enables control by measuring at one depth whereas the two MP406Cs enable control by measuring at two depths, the outputs of which go into two channels of an irrigation controller. The two channel option can enable switching ON when the upper sensor is dry and switching OFF when water reaches the lower sensor which would be placed at the bottom of the root zone.

A 4 mA output represents 0 mVolt or 0 VSW% and 20 mA represents 1200 mVolt or 100 VSW%.

### Ordering Information

**MP406C-12V** MP406 Probe with 4-20mA output (12V operation)

**MP406C-24V** MP406 Probe with 4-20mA output (24V operation)

