



## DESCRIPTION

Based on over 40 years' experience in the design and manufacture of field instrumentation, the type 3504.3000 Sensor makes the ideal soil moisture sensor for system integration.

Patented sensor electronics produce research grade measurement accuracy with exceptional salinity and temperature stability - essential for critical control and irrigation decisions.

Industrial rated, UV resistant cable fitted with a waterproof IP68 connector allows the sensor to be buried indefinitely, whilst still permitting easy cable exchange or extension if necessary.

## TECHNICAL DATA

Accuracy:	$\pm 0.03 \text{ m} \cdot \text{m}^{-3}$ (3%) volumetric water content (VWC) $\pm 0.5 \text{ }^\circ\text{C}$ (0 to 40 $^\circ\text{C}$ for temp sensor)
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Soil moisture measurement range:	0 to 1.0 $\text{m}^3 \cdot \text{m}^{-3}$ (100%) but less accurate above 70 % VWC
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Salinity range:	50 to 1000 $\text{mS} \cdot \text{m}^{-1} \pm 5 \%$ vol over 100 to 1000 $\text{mS} \cdot \text{m}^{-1}$ and 0...60 % VWC
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Temperature range:	Full accuracy over: 0 to 60 $^\circ\text{C}$
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Output:	0 to 1.0 V differential Corresponding to 0 to $-0.6 \text{ m}^3 \cdot \text{m}^{-3}$
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Power requirement:	5-14 V, ~18 mA for 1s Minimum 5 V with 100 m cable
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Environmental:	IP68 with supplied cables
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Sample volume:	~55 x 70 mm diameter Sample volume is weighted towards soil immediately surrounding the rods
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Dimensions:	Overall: 143 x 40 mm diameter Rods: 51 mm x 2.5 mm diameter
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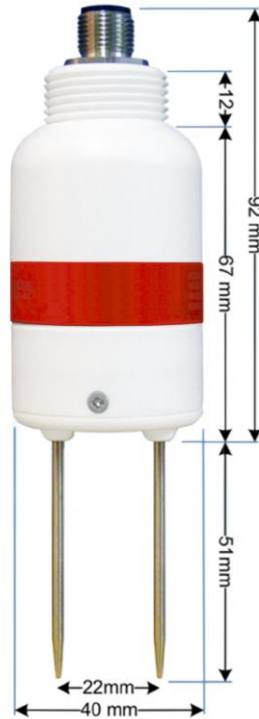
Weight:	0.1 kg (exc. cable)
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Sensor calibrations:	Individual sensors are interchangeable Recalibration advised every 3 years (depending on use)
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Soil calibrations:	Generalised Mineral and Organic soil calibrations are supplied
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Technical data are subject to change!

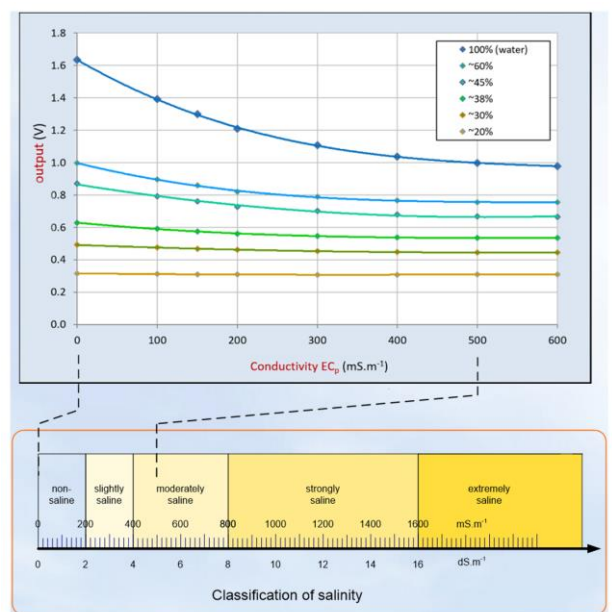
## DIMENSIONS



## APPLICATIONS

Soil calibrations are provided for general soils and substrates, or a specific soil calibration can be determined if necessary. The sensor can be installed at depth in augured holes, or buried in substrate containers.

## CONDUCTIVITY RESPONSE AT DIFFERENT WATER CONTENTS



## ACCESSORIES (OPTIONAL)

Soil moisture sensor with built-in temperature sensor. NB cable must be ordered separately.

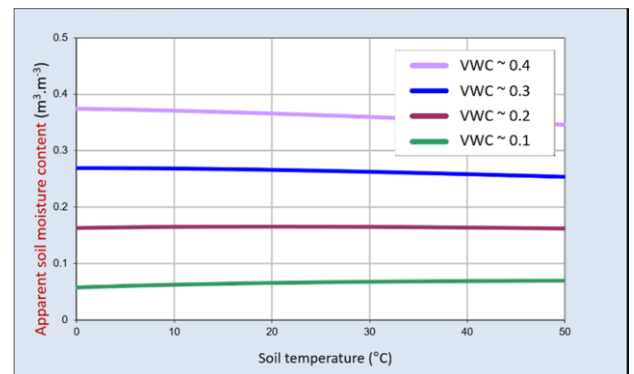
5 m cable terminating in bare wires for connection to data loggers and controllers.

## ACCESSORIES FOR BURIAL AT DEPTH

0.5 m extension tube

1.0 m extension tube

## TEMPERATURE DEPENDENCE READINGS IN A DAY SOIL



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