

## Decagon EC-5 Soil Moisture Sensor



### ECH500

The EC-5 is a basic, reliable and low cost Soil Moisture Sensor. The EC-5 determines volumetric water content (VWC) by measuring the dielectric constant of the media using capacitance/frequency domain technology. Its 70 MHz frequency minimizes salinity and textural effects, making this sensor accurate in almost any soil or soilless media. It is just 5 cm long, and has a 0.3 L measurement volume.

<b>Accuracy</b>	
<i>Mineral Soil</i>	±3% VWC, most mineral soils, up to 8 dS/m ±1-2% VWC with soil specific calibration
<i>Rockwool Potting Soil</i>	±3% VWC, 0.5 to 8 dS/m ±3% VWC, 3 to 14 dS/m
<b>Resolution</b>	0.1% VWC (mineral soil) 0.25% VWC (rockwool)
<b>Range</b>	calibration dependant; up to 0-100% VWC with polynomial equation
<b>Dimensions</b>	8.9 x 1.8 x 0.7 cm
<b>Cable Length</b>	5 m, custom cable lengths available upon request
<b>Measurement Time</b>	10 ms
<b>Power</b>	2.5 - 3.6 V DC @ 10 mA. Output proportional to input voltage. 2.5 V and 3 V excitations supported with calibration equations
<b>Output</b>	Voltage, correlated linearly (soil) or polynomially (growing media) with VWC
<b>Temperature</b>	-40°C to +50°C
<b>Part.no. ECH500</b>	Decagon Echo5 probe sensor
<b>Interface</b>	Necessary Interface to connect this sensor with iMetos: ECH870E / ECH871E / ECH874E

IM5041D  
 SAR19  
 ECH500  
 ECH510  
 ECH5TM  
 ECH5TE  
 ECH511  
 MD510SM  
 AQ600  
 TNS103..7  
 SEN12512  
 SEN13512  
 100SMT  
 ECH870E  
 ECH871E  
 ECH874E  
 WM-BUS  
 TNS100