## TECHNICAL DATASHEET SOLEM



## EC5 DECAGON PROBE





Accurate measure of the Volumetric Water Content of the soil Every type of soil Analogic output tension Robust and reliable

## **DESCRIPTION**

The EC-5 is a basic, reliable and economical soil moisture sensor. It determines volumetric water content (VWC) by measuring the dielectric constant of the soil using capacitance technology.

Although the measurement principles are the same as EC-10 and EC-20, the EC-5 differs in its 2-pin design and higher measurement frequency (70 MHz) allowing it to measure 0% VWC to 100% (where or generally, the VWC of saturated soils is between 40% and 60% depending on the type of soil).

It therefore allows precise measurement of the VWC of all soils and soilless environments and a much wider range of salinities.

The sensor can be oriented in any direction, however, orienting the flat side of the sensor perpendicular to the ground surface will minimize the effects on downward ground movement

## **CHARACTERISTICS**

Accuracy	Mineral soil:  ± 3% VWC, most mineral soils, up to 8 dS / m  ± 1-2% VWC with specific ground calibration.  Rockwool:  ± 3% VWC, 0.5 to 8 dS / m  Soil:  ± 3% VWC, 3 to 14 dS / m
RESOLUTION	From 0 to 100% VWC (Soil water content) - 0.001 M3 / M3 VWC i.e. 0.1% in mineral soils - 0.25% rock wool  Operating temperature: -40 ° C to + 50 ° C.
OUTPUT SIGNAL	From 10% to 50% of the supply voltage (Or 0.25V to 1.25V for a supply voltage of 2.5V. Measurement: 10 ms max.
POWER SUPPLY	2,5V – 3,6 V DC, 10mA
CABLE LENGTH	5 Meters extendable to 40 meters
DIMENSIONS	L x I x H: 8,9 cm x 1,8 cm x 0,7 cm Spindles Length : 5cm.
WIRES COLORS	BROWN: + VBAT (Alimentation) BARE WIRE: GND (Ground) ORANGE: OUTPUT TENSION