



# Aranet Soil sensor (WET150)

The perfect solution for ensuring plants get the correct amounts of water and nutrients by monitoring soil humidity, temperature, and electrical conductivity.

## Aranet Soil sensor (WET150)

Measures volumetric water content,  
electroconductivity and temperature of soil

TDSPHW02 (EU)  
TDSPHWU2 (US, AS)

### Sensor performance

	Volumetric Water Content (VWC)	Apparent dielectric permittivity	Bulk Electrical Conductivity (EC)	Temperature
Range	0 – 100 % <sup>1</sup>	1 – 80	0 – 12 dS/m	-20 °C to 60 °C (-4 °F to 140 °F)
Resolution	0.1 %	0.01	0.001 dS/m	0.1 °C (0.1 °F)
Accuracy <sup>2</sup>	± 3 % <sup>3</sup>	1–40 : 3% 40–80 : 5%	±6 % + 0.1 dS/m	±0.7 °C (±1.3 °F)

### Radio parameters

Line of sight range	3 km (1.9 mi)
Supported ISM bands	EU868, RU869 US920, AS923
Transmitter power	14 dBm
Data transmission interval	1, 2, 5 or 10 minutes
Data protection	XXTEA encryption
Compatible base stations	Aranet PRO

### General

Ingress protection rating	IP68
Operating temperature range	-20 °C to 60 °C (-4 °F to 140 °F)
Included in the box	AA alkaline battery

### Power

Type	Alkaline <sup>4</sup>	Lithium <sup>5</sup>
TX interval	Battery lifetime at 20 °C (68 °F) <sup>6</sup>	
1 minute	0.8 years	1.0 years
2 minutes	1.5 years	2.0 years
5 minutes	3.4 years	4.6 years
10 minutes	5.8 years	8.2 years

### Compliance

CE	Conformité Européenne
IC	Innovation, Science and Economic Development Canada
FCC	Federal Communications Commission (USA)

Aranet Soil sensor has been carefully optimized to provide accurate readings in soils and substrates – readings taken in water or air may not meet the full specification.

<sup>1</sup> The VWC range is dependent on the media the sensor is calibrated to. A custom calibration will accommodate the necessary ranges for most substrates.

<sup>2</sup> 95 % of the sensors measure within these typical limits in equilibrium state at the time of sale.

<sup>3</sup> The VWC accuracy is dependent on the media the sensor is calibrated to.

<sup>4</sup> Fujitsu Premium LR6G07 AA batteries used for tests and calculations.

<sup>5</sup> Energizer Ultimate Lithium L91 AA batteries used for tests and calculations.

<sup>6</sup> Battery lifetime data has been obtained by mathematical extrapolation and is provided for descriptive purposes only and is not intended to make or imply any guarantee or warranty.