Aranet Soil sensor overview

This sensor measures volumetric water content, dielectric permittivity, and soil temperature for horticulture and other applications.

Function

When attached to plant substrate*, this sensor:







Measures water content in the substrate.



Monitors soil temperature for planting and seed germination.



Indicates optimal fertilizer nutrient levels via electrical conductivity.

Instructions

Insert sensor probes into the plant substrate* and observe the trend of the electric conductivity as one of the growth indicators. Ideally, use 3 – 5 sensors per irrigation valve.



The schematic of Aranet Soil sensor installation.

Full automation routine

Aranet Soil sensors and climate computer optimize the usage of fertilizer, water irrigation system, and seed planting:

- 1. The Soil sensor network measures electric conductivity and water saturation.
- 2. Base station collects and stores measured data.
- 3. Access historic data from a base station locally or from Aranet cloud.
- 4. Evaluate data and let the climate computer adjust irrigation and fertilizer dosing.

*optimal probe placement depends on the type of the crop as well as substrate and is a subject to experimentation.