TECHNICAL SHEET

integra

IOT SENSORS

Temperature, humidity and pressure probe: Operating range: -40 ~ +85 ºC. Accuracy: ±1 ºC (range 0 ºC ~ +65 ºC) Response time: 1.65 seconds (63% response from +30 to +125 °C).

Floor temperature sensor. It is a digital temperature sensor that provides accurate measurement and high resolution (up to 0.065 ºC). It can be used in humid environments as well as for temperature measurement in soils or liquids. Accuracy: ±0.5 ºC (range -10 ºC ~ +85 ºC)

Soil moisture sensor probe: The resistance value of the sensor is proportional to the hydric tension of the soil, a moisture-dependent parameter that reflects the pressure needed to extract water from the soil.

WS-3000 Weather Station Probe: Consists of anenometer, rain gauge and weather vane.

The **anemometer** chosen for Waspmote consists of a normally open reed switch that closes for a short period of time when the anemometer arms complete a turn, so the output is a digital signal whose frequency will be proportional to the wind speed in kilometers per hour (km/h).

The **rain gauge** consists of a small bucket which, when completely filled (approximately 0.28 mm of water), closes a switch and then empties automatically. The result is a digital signal whose frequency is proportional to the intensity of the rain in millimetres of rain per minute (mm/min).

Leaf moisture sensor: The leaf moisture sensor behaves like a very high value resistance (infinite, in practice) in the absence of condensation on the conductive combs that compose it, which can fall to approximately 5kΩ when completely immersed in water.

SPECIFICATIONS

- Robust and waterproof IP65 housing.
- Fully certified for the main markets: CE, FCC, IC, ANATEL, RCM, PTCRB, AT&T.
- Solar power supply with external panel.

CONECTIVITY

((4G))

CLOUD

Microsoft Azure

USER EXPERIENCE

The data collected by the sensors are directly visible in a user application through a web page also optimized for use from mobile or Tablet.

This application has different functionalities that allow the user to obtain a complete monitoring of their fields and its intuitive interface allows a simple and dynamic handling.

One of the main functions it has, is the possibility of receiving alarms on the home screen that warn the farmer of possible serious alterations that affect their crops and require rapid action, such as lack of irrigation or the risk of frost. In addition to this function, the application allows you to select each of the indicators separately and obtain a more specific display of each variable. The specific sections offered by the control panel are the following: wind, humidity, leaf humidity, rain, atmospheric pressure, soil humidity, temperature and soil temperature.

The filtering capacity allows an exhaustive monitoring of the evolution of the fields, and in addition, it allows to have stored the data of the different fields in which the farmer has installed SmartEye, being able to choose which one he wants to visualize at each moment.

Finally, there is also the possibility of entering notes to support future decision-making by the user.

INDICATORS

- TEMPERATURE
- HUMIDITY
- STATE OF THE SOIL IN TERMS OF IRRIGATION
- LEAF MOISTURE
- RAINY DAYS
- IRRIGATION RECOMMENDATIONS
- TEMPERATURE TRENDS
- RAINFALL LAST 30 DAYS
- ALARMS