FieldGuard LoRaWAN™ Mini Stations

ESTEDE | Scientific Uses LoRaWAN™ to build Private sensor networks for local farms and growers to monitor the growth conditions in their orchards, vineyards, Tunnels etc. Our LoRaWAN™ devices have been developed to measure all the important parameters that are influencing the growth and quality of you crops. Typically we setup a LoRaWAN™ Gateway at your farm to create a private LoRaWAN™ wireless sensor network with a range of approx. 10 Km, our you can connect the station to the LoRa network of your national telecom provider. There is no limit to the number of LoRaWAN™ sensor units that you want to connect to your system.

Specifications: Soil Sensor Station

The FieldGuard Soil Sensor station is developed for measuring Soil Conditions in orchards, vineyards tunnels etc. Each station has two analog sensor ports available for connecting a WaterScout SM100, WaterScout SMEC300 and/or Watermark Sensor. Besides the 2 analog sensor ports the station also holds two I²C ports that can be used for a combined T/RH sensor. FieldGuard Mini Stations work with our Tracis Web Portal. The Web Portal is available on every computer or smartphone with an internet connection. You just need to login to your account, and all the data from the stations in your account can be monitored, compared and analyzed (API is available for third party software). For more information about the Tracis Web Portal check www.fieldguard-stations.com

Product numbers:

3.001.001	FieldGuard LoRaWAN Soil Sensor Station without sensors
3.001.101	Mounting tube for installation in Vineyard, Orchard or Tunnel
3.001.102	Sensirion Air Temperature & humidity sensor with Radiation shield and Sinter filter
4.001.001	WaterScout SM100 Soil Moisture Sensor (%VWC)
4.001.003	WaterScout SMEC300 Soil Moisture Sensor (%VWC, EC and Soil Temp.)
4.001.005	Watermark Soil Moisture Sensor (kPa)

Features:

- 2 Analog Sensor Ports (0—3 Volt)
- 2 digital I²C ports
- Typical use in Vineyards, Orchards or Tunnels
- Battery operated (Lithium-Ion 3.6 Volt battery)
- External power option (6—12 VDC)
- Communication: LoRaWAN™
- Spreading factor: 12
- Frequency: 868 MHz
- Range up to 10Km (LOS)

LoRaWAN™ is a Low Power Wide Area Network (LPWAN) specification intended for wireless battery operated devices in a private, regional, national or global network. LoRaWAN™ targets key requirements of Internet of Things such as secure bi-directional communication, mobility and localization services. The LoRaWAN™ specification provides seamless interoperability among smart Things without the need of complex local installations and gives back the freedom to the user, developer, businesses enabling the roll out of Internet of Things.

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