AgriStick

Agrometeorological smart device

Features

- Wireless communication via narrowband NB-IoT cellular network
- Real-time measurements at 3 different heights
- Reliable measurement in all weather conditions
- Simple deployment process
- Easy integration with existing infrastructure
- Optional, additional sensors: air temperature and humidity, soil (humidity, fertility, pH, electrical conductivity and salinity), leaf wetness, rainfall

Product description

AgriStick is a smart agrometeorological device that has integrated 3 temperature sensors for measuring air and soil temperature. In combination with a narrowband (NB-IoT) network, it transmits the results of all these measurements to a mobile application. Optional, additional sensors can be attached to a device: soil (humidity, fertility, pH, electrical conductivity and salinity), leaf wetness, air temperature and humidity, rainfall sensor.

Built-in battery, supported by an intelligent control system, guarantees a long service life with minimal maintenance and autonomous operation in urban and rural areas.

Measurements

The AgriStick can measure temperature on 3 different heights which user can determine, for example **-20/-5/95 [cm]**.

First number represents the distance of temperature sensor below ground level, second number represents distance of temperature sensor at a ground level and third number represents the distance of a temperature sensor above the ground level. Distance is presented in centimeters. Other examples can be **-15/0/100 [cm]** and **-10/5/105 [cm]**.

Deployment and activation process

AgriStick is delivered to the customer in an inactive state, which reduces battery consumption during transport and storage. Device is easy to deploy and can be installed on different locations.

Activation of a device is easily done using an Android or iOS mobile device via QR code. By scanning the QR code on the SIM IoT label gives customers step-by-step guide of the device activation process. It includes application downloading, user registration, device assignment and its activation.

Each device can come with a pre-installed SIM card, or it can be installed from customer local network operator.

Application

- Temperature measurement on field
- Simultaneous measurement of soil and air parameters
- Industrial sensors measurement
- Measurement of soil (humidity, fertility, pH value, electrical conductivity and salinity), leaf wetness, air temperature and humidity, rainfall

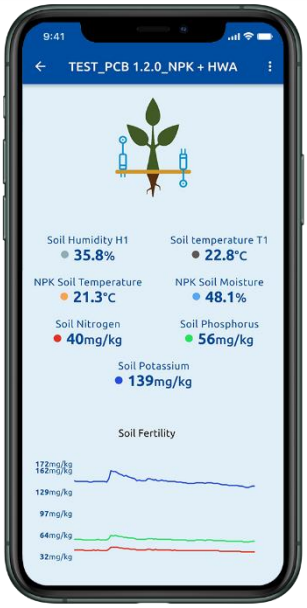
Mobile application - Spotium

Spotium mobile application in combination with AgriStick device and NB-IoT technology, gives complete solution to the customer needs.

It is available for Android and iOS operating systems (Google Play and Apple Store).

Through the application, customers can monitor gathered data and locations of assigned devices, receive notifications and access reports on measured parameters.

All important and desired data are graphically presented, while all the sensors are visualized within the user interface using maps.



Technical specifications	AgriStick
Bluetooth low energy capability	Supports data exchange with external device via BLE
Power supply	Built in Hybrid Primary Li-$SOCl_2$ battery
Voltage [V]	3,6
Capacity [Ah]	17
Mounting	Into the ground
Dimensions of stick (height x radius) [mm]	1435 x 15
Dimensions of enclosure (WxLxH) [mm]	150 x 150 x 55
IP protection	IP66
Measuring temperature range [°C]	-20…+70
Measuring temperature accuracy [°C]	±0,5 between -10 to +70
SIM card	4FF Nano SIM