Phytech wireless system

USER MANUAL

V1.0

General description

- Phytech logger is part of an advanced AG IoT platform for optimized irrigation management. The device receives Plant sensor measurements and sends them to the Phytech cloud for analyzing and processing. The outcome is a simple color coded alert and recommendation Application (Mobile, web) provided to the farmer in order to help him decide when and how much to irrigate

Installation and operation

- Installation is very simple based on mobile app installation wizard. The logger shall be installed near the plot, sensors shall be installed on trees within 250m radios from logger.
- The data received from sensors is analyzed in server and provided to users as irrigation recommendations via web and mobile apps.

User manual – shall describe purpose of device, what for it is used, brief description of transmitter communication, FCC statements as given in Customer guide.

Product features

Sensor

- Easy mount
- GPS based Self-location
- High resolution stem/trunk diameter measure
- Event triggered radio transmission

Logger

- > 100 sensors per logger
- 14 days data logging
- Solar power system
- Cellular communication with cloud servers. Cellular LE910 Telit module approved by FCC under FCC ID:RI7HE910GL. Operating frequencies in GSM850, EGSM900, DCS1800, PCS1900, WCDMA modes, compliant to the 3GPP and WCDMA specifications. The Cellular module communication is used to upload sensors data to cloud servers.

Interfaces

Sensor

- Reset button and indication LED
- Analog sensor

Logger

- Reset button
- 3 indication LED's

Radio

- UHF 433.9 MHz
- FSK modulation
- 4.8 kbps
- Custom antenna (both sensor and logger)
- This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

(1)This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

This device complies with FCC Rules Part 15 and with Industry Canada licence-exempt RSS standard(s). Operation is subject to two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference that may be received or that may cause undesired operation.

Changes or modifications to this equipment not expressly approved by the party responsible for compliance (Phytech Ltd.) could void the user's authority to operate the equipment.

- Cellular LE910 Telit module approved by FCC under FCC ID:RI7HE910GL.

WARNING! To comply with FCC RF exposure compliance requirements, the device should be located at a distance of at least 20 cm from all persons during normal operation. The antennas used for this product must not be co-located or operated in conjunction with any other antenna or transmitter.

Electrical

Sensor

- Input voltage 3.2 – 2.7v (2 X AAA alkaline battery)

Logger

- Input voltage 4.3 – 3.7v (18650 Li-ion battery)