



# Vita/1 Sensor

## User manual



Product designed by Vivent Biosignals SA  
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### 1. Product overview

The Vita/1 is a compact, battery-powered agricultural sensor designed for monitoring plant responses to soil and environmental conditions as well as to some biotic stressors. Featuring a USB-C charging port, on/off button, and 2.5mm electrode connector, it's suitable for both field and greenhouse applications.



### 2. Package content

- Vita/1 sensors,
- Vita/1 USB-C environmental sensor dongles,
- Soil electrodes (2,5 mm jack),
- Charger with USB-A – USB-C cables (optional),
- Quick Start Guide.

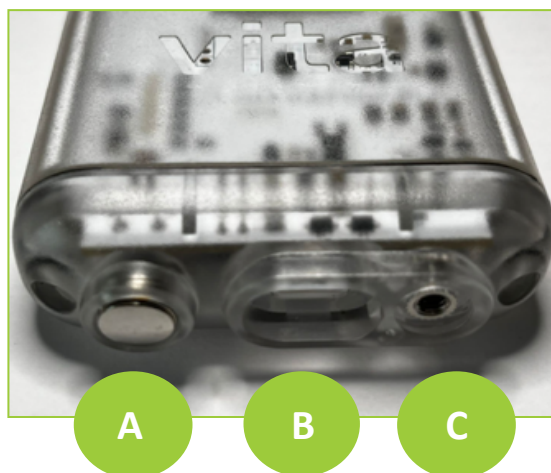


Reference photo.

### 3. Device layout

All ports are located on the bottom of the device:

- A. On/Off Button,**
- B. USB-C Charging/Environmental Sensor Port,**
- C. 2.5mm Electrode Connector.**



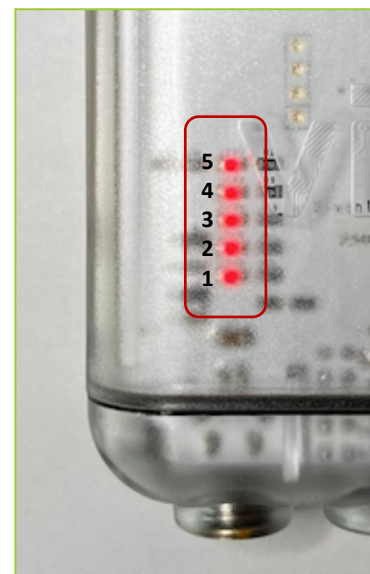
### 4. Powering On/Off

To turn on the device, press and hold the On/Off Button (A) for approximately 5 seconds.

Status LEDs light up red in the following sequence:

- Centre LED (3rd),
- Inner LEDs (2nd and 4th),
- Outer LEDs (1st and 5th).

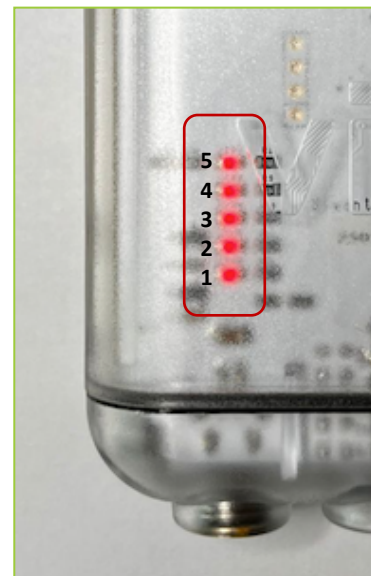
To switch off, press and hold same button again for approximately 10 seconds. The LEDs will turn off in reverse order.



## 5. LED Display Modes

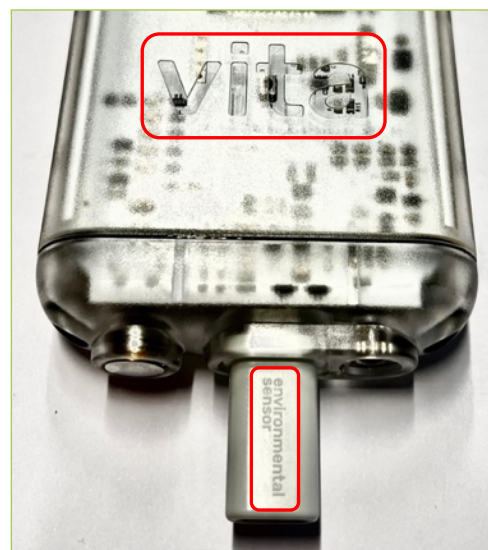
After the device is on, tap the On/Off Button to cycle through modes:

1. Battery charge level indicated by LEDs:
  - 5 LEDs – 90-100 %,
  - 4 LEDs and 5th blinking - 80-90 %,
  - 4 LEDs - 70-80 %,
  - 3 LEDs and 4th blinking - 60-70 %,
  - 3 LEDs - 50-60 %,
  - 2 LEDs and 3rd blinking - 40-50 %,
  - 2 LEDs - 30-40 %,
  - 1 LED and 2nd blinking - 20-30 %,
  - 1 LED - 10-20 %,
  - 0 LEDs and 1st blinking - 0-10 %.
2. LoRa Signal Strength:
  - Connected: 1-5 LED (from 1 – weak connection, to 5 – strong connection),
  - Not connected: LEDs switch on sequentially from 1 to 5.
3. Environmental Sensor:
  - Attached: LEDs 1, 3 and 5 are lit,
  - Not attached: LEDs switch on sequentially from 5 to 1.



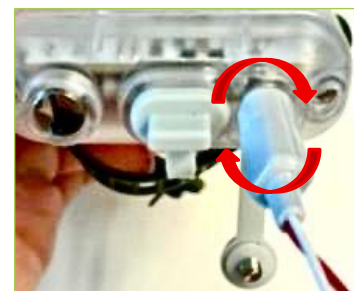
## 6. Environmental sensor - dongle

Connect the environmental dongle to the central USB-C port (B). Ensure the “ENVIRONMENTAL SENSOR” label is on the same side as the “VITA” text on the device front.



## 7. Electrodes

Carefully take electrodes out of the box (needle insertion injury risk). The electrode set consists of two wires – a white GND (ground electrode) and a red LEAF (active electrode) terminated with a 2.5mm screw-in jack connector. Screw the electrode wire into port C on the right-hand side.



## 8. Charging

Connect a suitable USB-C charger with at least 15W (5.1V, 3A) to the centre port and plug into a power source. The battery charging light above the port will light up during the charging process. When the device is fully charged, this LED will shut off, indicating the charging process is completed. Charging takes about 4 hours. Use certified or attached accessories only.



## 9. Troubleshooting

Issue	Solution
Device does not switch on	Charge the battery fully
No LED response	Turn off and turn on the device or recharge it
No data	Check electrodes or LoRa connection
The power button feels very tight and does not have a lot of travel distance	Loosen the two bottom screws until you can feel the click of the On/Off Button (use 2.0 mm Allen / hex key – not attached)

## 10. Technical specification

Power: Rechargeable Li-Po battery, 4000mAh @ 3.8V

Ports: USB-C (charging), 2.5mm Audio Jack (electrode)

LEDs: 5 status indicators

Temperature range: from -10°C to 50°C

Connectivity: LoRaWAN (865 – 930 MHz or 420 – 480 MHz),  
 Bluetooth Low Energy (BLE)

## 11. Declaration of Conformity

Vita1 Sensor is in conformity with the essential requirements and other relevant provisions of the CE, RoHS and REACH.



## 12. Support

**For assistance contact distributor or authorised Vivent representative or visit:**

Vivent SA | Rue Mauverney 28 | 1196 Gland, Switzerland

Email: [info@vivent.ch](mailto:info@vivent.ch) | Phone: +41 79 511 46 27

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## ⚠️ PRODUCT SAFETY INFORMATION ⚠️

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To ensure your safety and prevent injury or damage, please carefully read and follow these safety guidelines before using this electronic device.

### 1. Needle-Sharp Tip Warning

- **Handle with care.** This device's electrode cables contain needle-like exposed tips that can easily **puncture skin or soft materials**.
- **Keep away from children and pets.** Sharp tips pose a high risk of accidental injury.
- **Avoid contact with skin and eyes.** Do not touch the tip directly or aim toward the body. Handle the cable sets on the side of the connector, and not on the end of the tips. Consider using protective gloves while operating.

### 2. Connectivity & Cable Use

- **Use the device in a dry environment.** Keep cables and connectors away from water or moisture to avoid electrical shock.
- **Avoid heat and sharp edges.** Do not let the cable rest against hot surfaces or other sharp objects that may cut or melt the device or cables.
- **Secure connection.** Ensure the device is properly connected before use to prevent data loss or interference.

### 3. Electrical Safety

- **Inspect regularly.** Check cables and connectors for wear, fraying, or damage. Replace immediately if compromised.
- **Do not attempt repairs.** If the device malfunctions or is damaged, contact authorized service personnel. There are no user-serviceable parts inside, tampering may void warranty and pose safety risks.
- **Do not connect the device** using the cables different from the ones provided or recommended by Vivent.

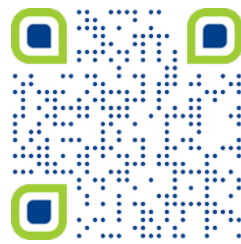
### 4. General Precautions

- **Use only as intended.** Follow manufacturer instructions. Do not modify the device or use it with unauthorized accessories.
- **Follow local regulations.** Ensure the use complies with wireless transmission and electronic safety standards in your region.
- **Report incidents.** Any injury, overheating, or electric shock incidents should be reported to the manufacturer immediately.

**⚠️ WARNING: Failure to follow these safety instructions could result in serious injury, fire, electric shock, or device malfunction. ⚠️**



**Give your crops a voice.**  
Grow Smarter. Grow Sustainable



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