

SENSOTERRA

Grow more, waste less...

INSTALLATION GUIDE



Single depth soil moisture sensor

Installation Guide

Getting started

1

Download the Sensoterra app.

Available for iOS and Android (search for "Sensoterra" in the app stores).

2

Open the app and create an account

This is the account you will register the sensors under and receive notifications on for soil moisture levels.

3

Make an installation plan

Consider how you'd like the sensors distributed over your land, and what soil type they are going to be used in. We recommend 5-6 probes per irrigation loop.

4

Go to the installation location for the first sensor

Open the Sensoterra app, open the tab "SET UP", "Add a new device" and follow the instructions.

5

Wake the sensors and insert

Wake the sensor by turning it upside down for 2 seconds and turning it upright again.

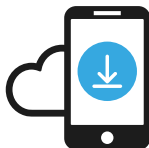
6

You can usually push the sensor in the soil

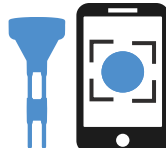
In tougher terrain, use a rubber hammer to tap the sensor into the soil. You can insert into the ground up to the blue housing.

Repeat steps 4 to 6 for other sensors. **After 1 hour*** check the Sensoterra app or the web monitor for soil moisture data.

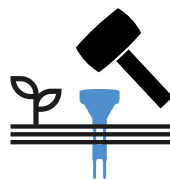
**In certain cases, it may take up to 48 hours for the first data point to appear in the Sensoterra app or monitor site. This process is to ensure the best possible connection on the LoRa network.*



Download the Sensoterra app



Scan the probe QR code to set up



Hammer into the ground

This equipment complies with FCC's radiation exposure limits set forth for an uncontrolled environment under the following conditions: 1) This equipment should be installed and operated such that a minimum separation distance of 20cm is maintained between the radiator (antenna) and user's/nearby person's body at all times. 2) This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: 1) Re-orient or relocate the receiving antenna. 2) Increase the separation between the equipment and receiver. 3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. 4) Consult the dealer or an experienced radio/TV technician for help.

Normal Use

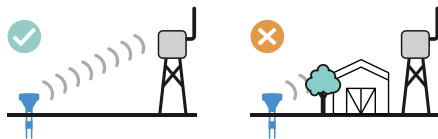
With proper use and care, the sensors should last 3 years. To get the most out of your sensors, please keep these tips in mind:

Push the sensors into the soil or tap them in using a rubber hammer.

Do not use a steel hammer on the casing! Directly hit the top of the sensor in the raised disc area.

Soil contact is important so should you feel an obstruction or resistance beneath the ground, try to find another spot to place the sensor.

Placement of sensors is key! Place sensors in a general line of sight of the gateway. Do not place sensors near any large (metal) structures like a grain silo, electricity tower, or water tower. Place at least 20 meters (65 feet) away to avoid interference.



Moving a sensor to a new location is easy

If you want to move a sensor to a new location, repeat steps 4 through 6. Note the sensor's previous location, as data will from now on be linked to the new location.

Remove the sensors prior to any mechanical harvesting.

The default setting is for measurements once per hour. It is possible to increase the frequency, however this uses more battery and will decrease the expected life.

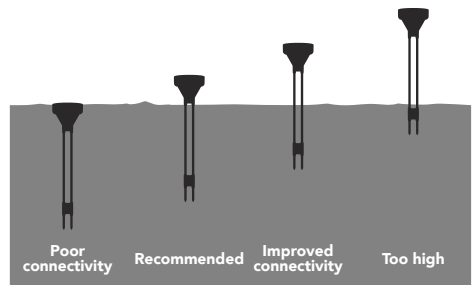
WARNING: When not in use, remove the sensors from the ground and store them in a dry place.

This is particularly important when your gateway is turned off. Do not leave the sensors in the soil with no LoRa coverage as they will continue to try to find a LoRa connection. This puts unnecessary strain on the battery and will reduce the battery life of the sensor.

Storing the sensors in a cool (not freezing), dry place puts them into stock mode and will prolong the battery life.

Make sure that the bare metal ends are not in contact with each other.

The sensor is locked to the first user account it is linked to, which means you cannot add the device to another account. This is a protection feature in case someone else tries to access your data.



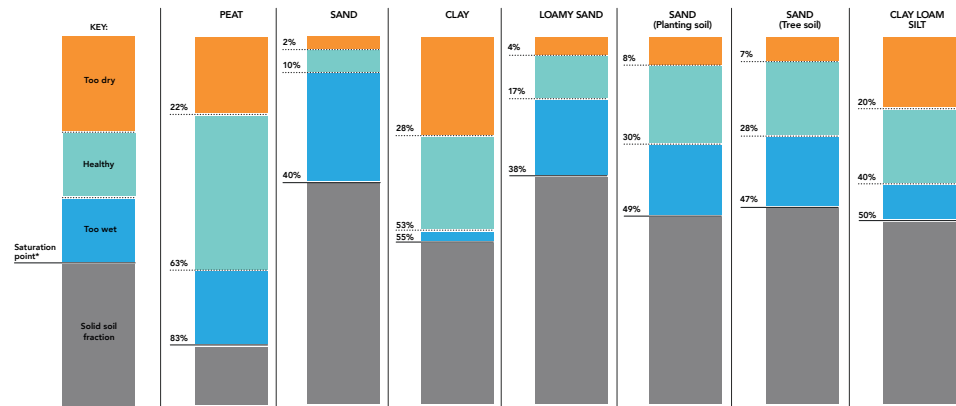
Soil Calibration

Sensoterra sensors can be calibrated to different soil types: Clay, Clay loam, Clay loam silt, Saline clay, Loam (Greenhouse soil), Loamy sand, Sand, Sand (Dunes soil 1), Sand (Dunes soil 2), Sand (Planting soil), Sand (Tree soil), and Peat.

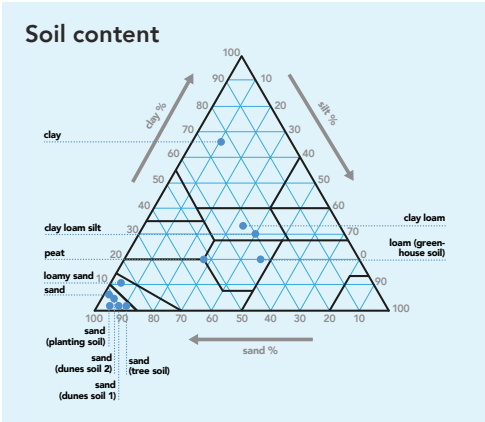
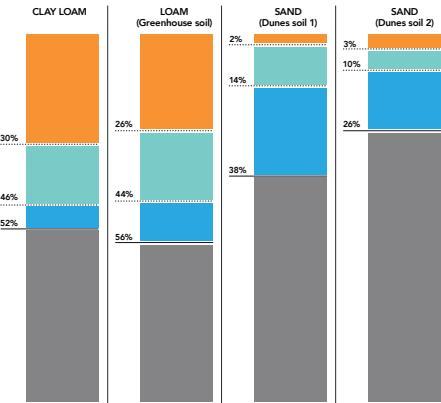
Soil moisture levels will be reported as a percentage level. We can recommend a healthy range for maintaining good soil moisture.



Soil moisture levels



* Saturation point = maximum volume of water that the soil can hold



If you have any queries, please contact our support team at support@sensoterra.com