



aranet

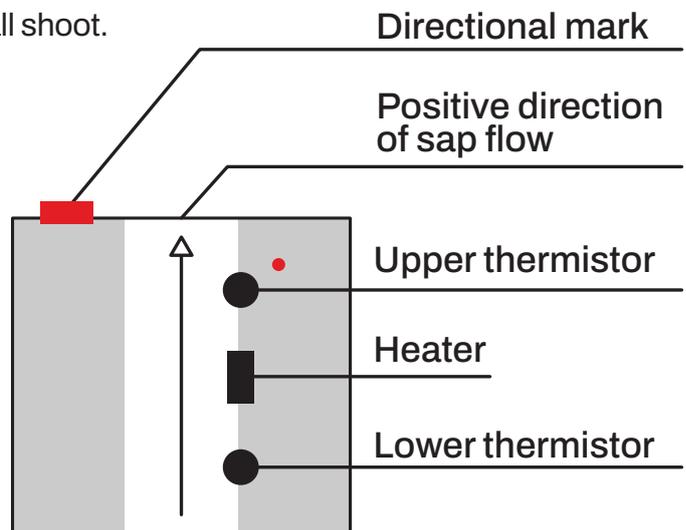
Elevate Your Horticulture Business with Sap Flow Sensors

Precision Monitoring for Optimal Plant Growth Management



The Sap Flow sensor is designed for monitoring relative variations of sap flow rate in plants petiole or small shoot.

- The unique design includes a collapsible heat-insulating cylinder housing a heater and thermistors.
- A red directional mark indicates the direction in which the sensor should be placed.
- This type of sensor undergoes rigorous testing for reliability.
- It empowers horticulture businesses to efficiently manage sap flow for optimal plant growth.



What do you get in a package?

1. Sap Flow sensor
2. 1x AA battery
3. Aranet 4-20 mA transmitter with 12 VDC power supply
4. A Signal Conditioner that converts the signal to 4-20mA.



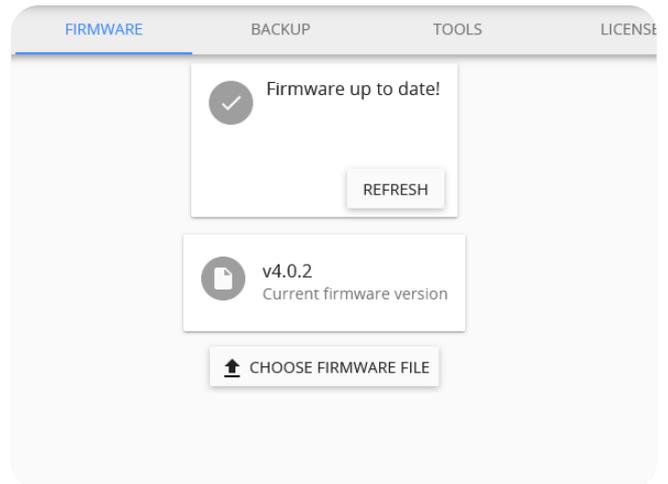
It is important to note that the sensor is already connected to the signal conditioner and transmitter, so all you need to do is plug in the power cable. But first, let's pair the Sap Flow sensor to the base station.

How to connect Sap Flow sensor to base station

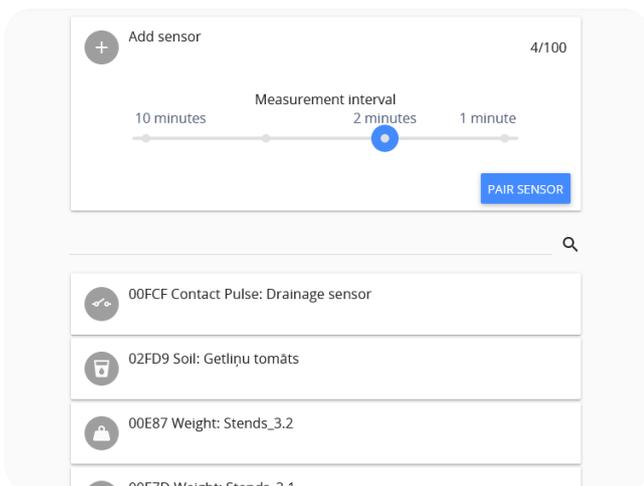
Pairing the sensor with the battery ensures an interrupted signal to the base station during the whole installation process, as well as in case of an electricity outage or sensing element failure.



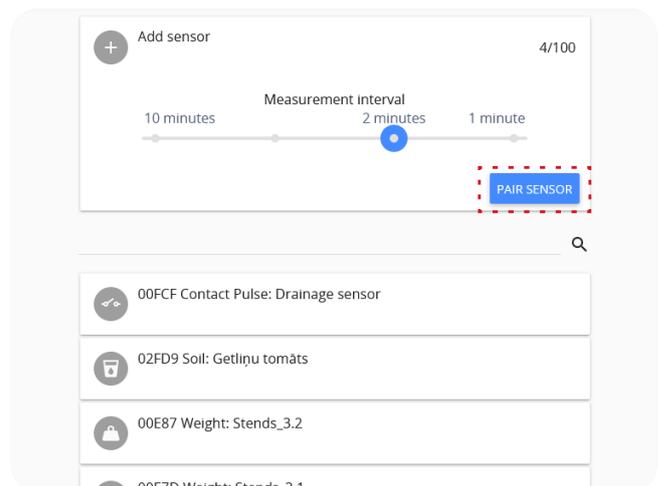
1. Unscrew and take off the transmitter's lid. Have the transmitter and 1x AA battery ready.



2. Open the base station WEB page (ensure that you have the latest firmware upgrade).



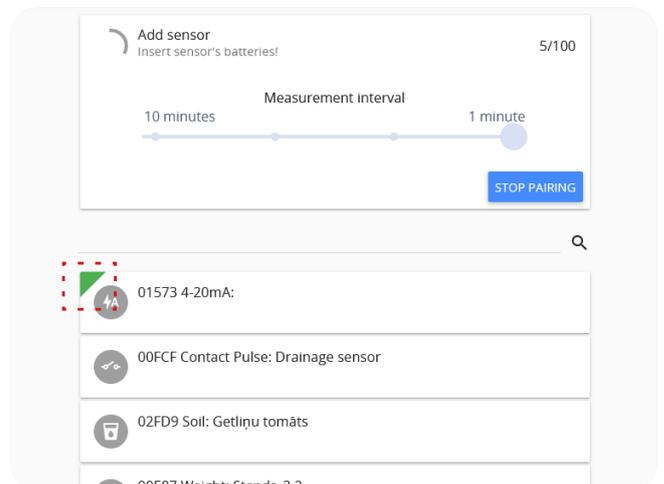
3. Open the section "SENSORS" and there choose the preferable measurement interval.



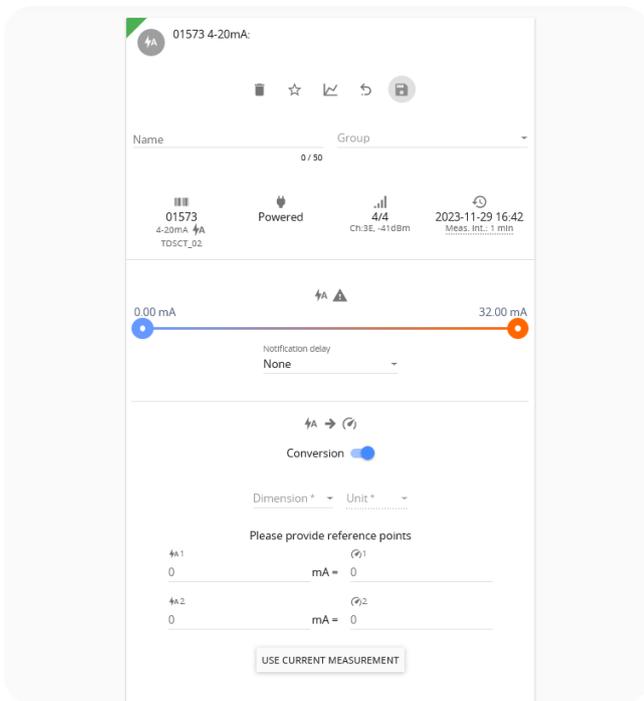
4. Click the "PAIR SENSOR" button on the computer screen.



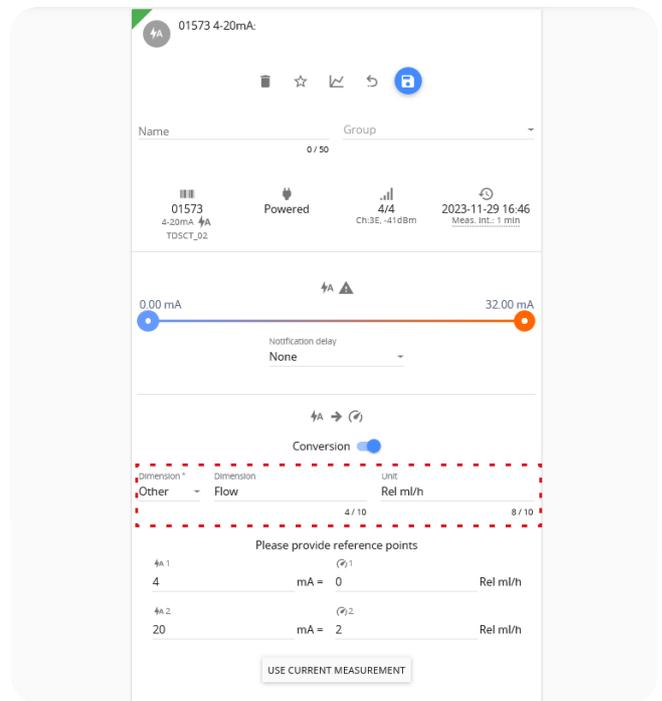
5. Insert battery and click the "PAIRING" button on the transmitter (left corner).



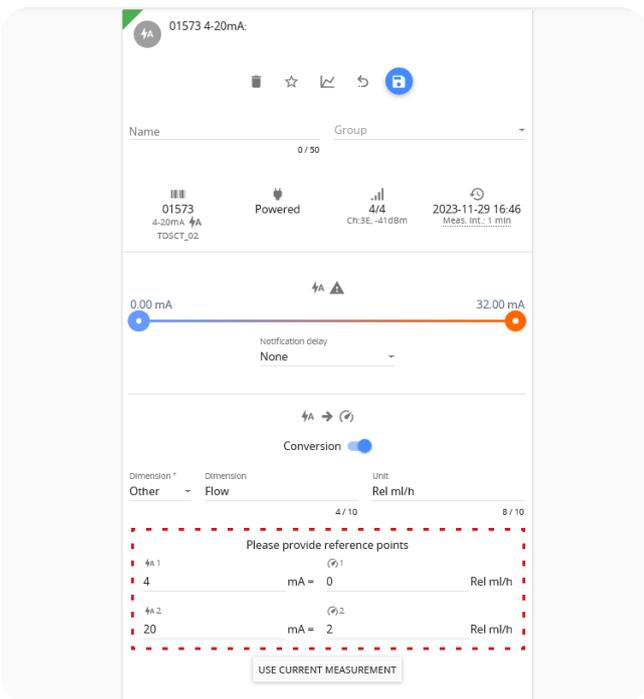
6. The sensor will be paired and appear with a green corner.



7. Within the 'SENSORS' section of the base station's WEB interface, you have the option to enable the conversion of mA (milliampere) values into other units.



8. Choose "Other" as the Dimension and input your own measurement unit.



9. Set 4mA to correspond to 0.000, and a reading of 20mA to represent 2.000 of Sap Flow relative units.



10. Screw the lid back on, and you have finished the sensor setup. Now you are ready to plug it into the power and install your sensor in your greenhouse.

CAUTION

Do not remove cover with transmitter plugged in.

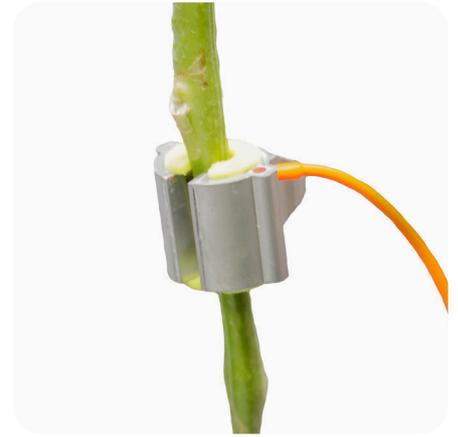
How to use Sap Flow sensor?



1. Choose an appropriate part of stem for installing the sensor. Make sure that sap flow rate in the stem does not exceed 12 ml/h. The rough estimation may be done assuming the average transpiration rate equal to 1.5 ml/h per square decimeter of leaf surface.



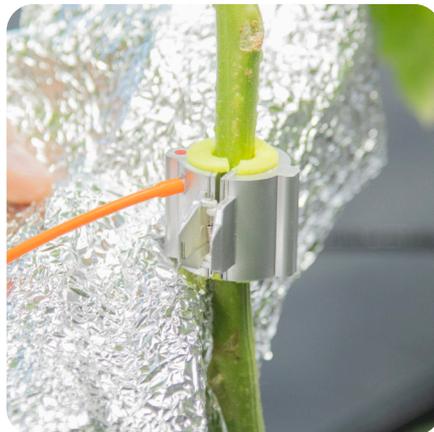
2. Open the sensor wide enough to place it on the stem. Make sure that the red directional mark corresponds to upward flow.



3. Make sure that the sensor is firmly placed and cannot slide or twist with the application of gentle force.



Recommendation: To securely position the sensor on stems with a diameter below 8 mm (approximately 0.31 inches), insert a foam-rubber bar into the internal cavity of the sensor, as shown below.



Recommendation: To ensure more precise measurements and protect the sensor from external heat effects, it is advisable to carefully cover the sensor with two or three layers of aluminum foil.



If you experience any issues, please reach out to our tech support for prompt assistance at support@aranet.com.