



GrowSphere™ ONE

Field Monitoring Unit

GrowSphere™ ONE is a stand-alone monitoring unit that can be connected to a wide range of sensors to collect real-time data from the field, enabling optimal irrigation management

Quick Setup

V1 – July 2023

/ What's in the box



ONE unit



Activation magnet



Metal cable ties



Technician USB cable



Antenna



Charging cable

* For the separated solar-panel configuration, two sets of 5m cable will be supplied (both for the antenna and the solar panel)

/ Technical specifications

Solar panel	4.4 Watt
Charging cutoff voltage	4.2V
Nominal charging current	1A
Battery rechargeable li-ion pack	3.7V 5200mAh
Max quiescent current	<3mA
Operational mode	0.1mA
Power-down mode	
Undervoltage lockout voltage	3.5V

/ Environmental features

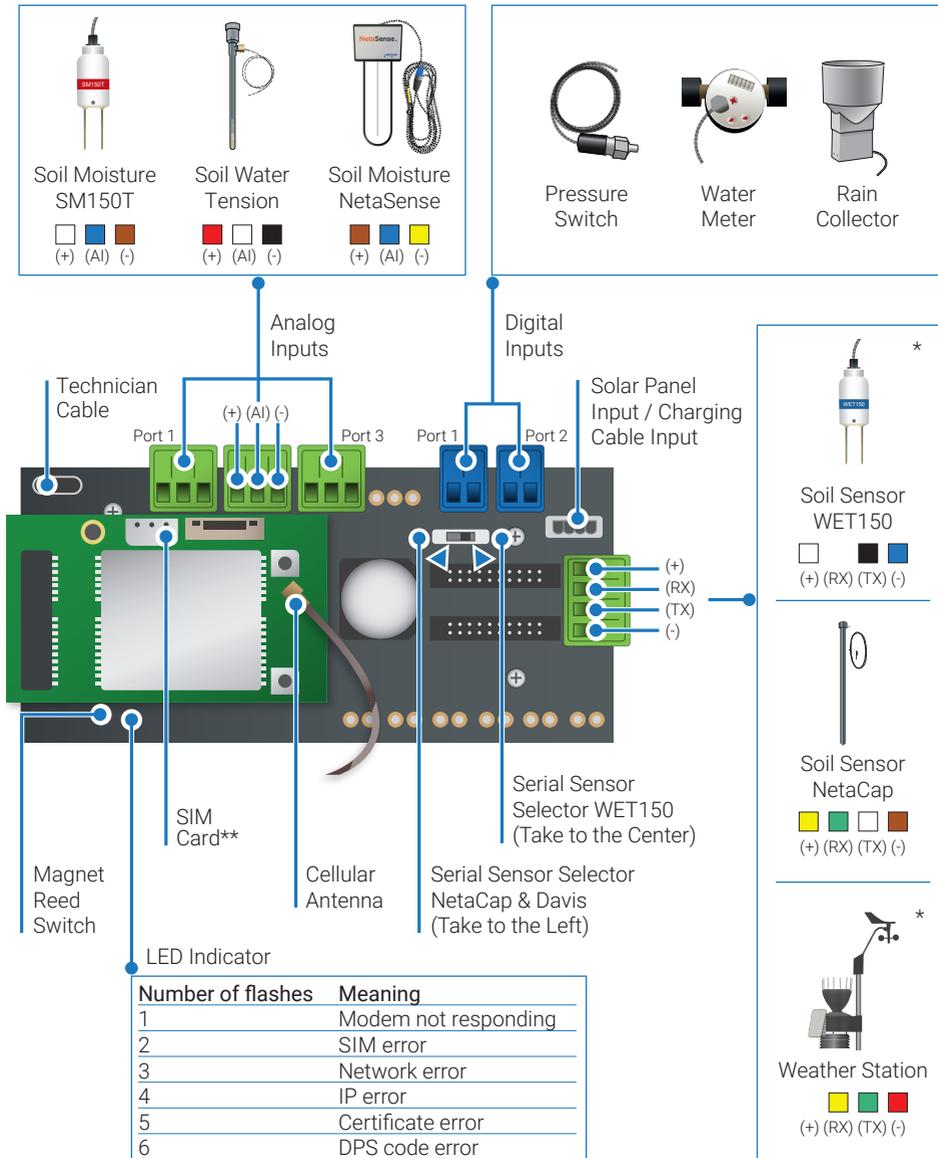
- Working temperature -10°C to 65°C (14°F to 147°F)
- Storage temperature -30°C to 70°C (-22°F to 158°F)
- Air humidity 0% to 95%

/ Supported sensors

- Analog Input (X3)
- Serial Input
- Digital Input (X2)

* Maximum 4 sensors can be connected simultaneously per unit

/ Sensor Wiring Diagram

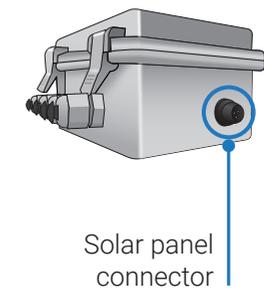
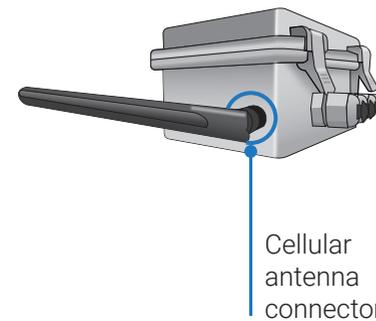
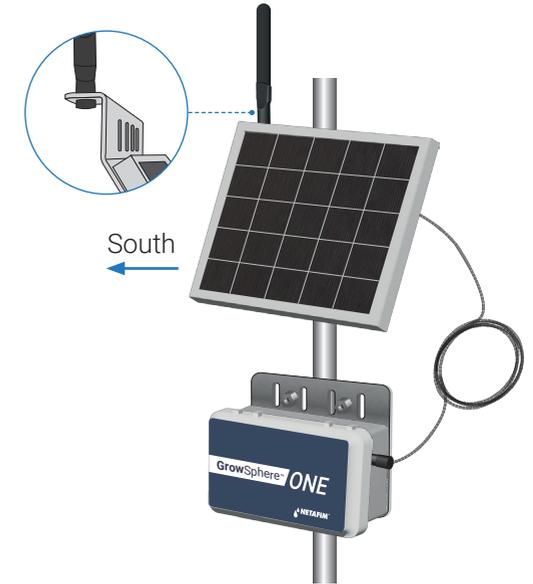


/ Initial Setup

/ Integrated solar panel



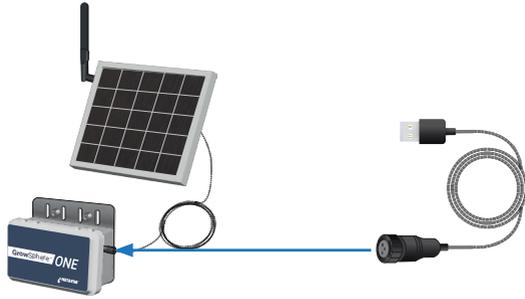
/ Separated solar panel, 5m cable



* Stay updated with your Netafim representative for sensor compatibility.

** The unit is provided with a SIM card

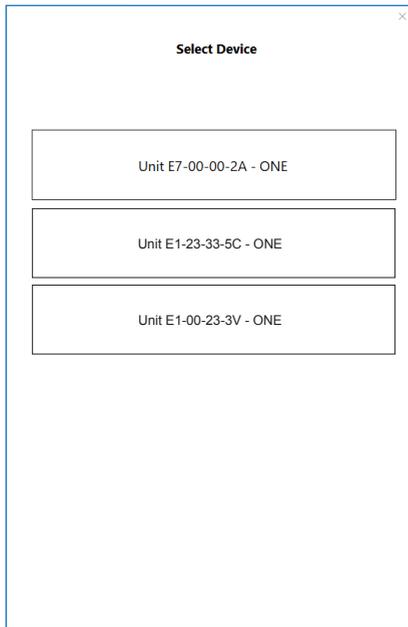
/ Prior to configuration, ensure the unit is charged for a minimum of 5 hours, by using the provided charging cable (as demonstrated in the diagram below). After charging, disconnect the cable and connect the solar-panel cable instead



/ In the App folder, click on the EXE. file. The user-name and password are not required. Instead, click on the 'Login'

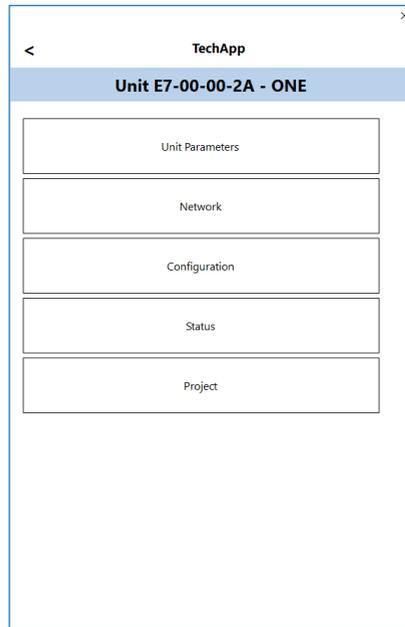
/ Select Device

Select your device



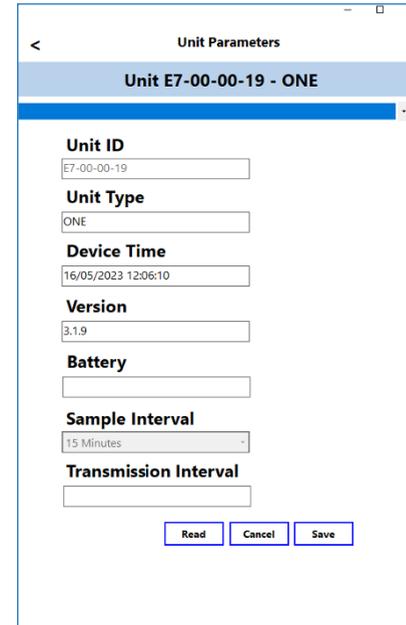
/ TechApp

Configure your unit by following the instructions below, based on the sensors you wish to connect. To begin, select Unit Parameters



/ Unit Parameters

The parameters are read-only.
Click 'Save'



/Sensors Configuration

Select the sensors you wish to connect

Sensors Configuration
Unit E7-00-00-2A - ONE

AI1 - Tensiometer
AI2 - NetaSense
AI3 - PressureSensor
DI1 - Water Meter
DI2 -
SERIAL1 - NetaCap20

Table View Send Topology

/Port Config for serial sensors

Define the Sensor Type and Sensor Depth. Check the Active box and then click Save

Port Config
Unit E7-00-00-7A - ONE

SERIAL1 -

Active

Sensor Type
NetaCap20

Select Depth
0 CM

Read Cancel Save

/Port Config for Digital sensors

Define the Sensor Type, Sensor Name and Pulse Volume. Check the Active box and then click Save. Please note: Metric / Imperial units can be selected

Port Config
Unit E7-00-00-7A - ONE

DI1 -

Active Metric Imperial

Sensor Type
Water Meter

Sensor Name

Pulse Volume (liter)
1

Nominal Flow (m³/h)
0.000

Read Cancel Save

/Port Config for Analog sensors

Define the Sensor Type, Sensor Name and Sensor Depth. Check the Active box and then click Save

Port Config
Unit E7-00-00-7A - ONE

AI1 - NetaSense

Active

Sensor Type
Tensiometer

Sensor Name
avi meter

Select Depth
90 CM

Read Cancel Save

* It is recommended at this stage to physically connect the sensors to the device

Quick check-list:

- Ensure the serial sensor selector is in the proper position (please see Wiring Diagram)
- Ensure the Active box is checked
- Activated ports should be highlighted in blue

/Network

Now you can disconnect the cable, the unit is ready for field installation. Please note, from the moment the unit is activated, it will stay active for 15 minutes. If Modem Status is "Not connected", you can use the magnet or select 'Read' and then 'Connect' to activate it

Network

Unit E7-00-00-1A - ONE

APN
fllive.net

ID-Scope
One006BA13B

IoT Hub
stag-netbeatvx-iotHub-weu.azure-de

Modem Status
Connected

Process
Done (9/9)

Error

Connect Read Cancel Save

/Sign-up to GrowSphere™ Cloud

Create your GrowSphere™ account or log in to an existing account. A link was sent to you by your Netafim representative

GrowSphere™

Hey! Welcome
Join us and start growing

[I'm already a member](#)

NETAFIM™ orbia

First name
Last name

Username
Phone number

E-mail
ziv.omer@netafim.com

Country
Select country

Unit system
Metric

Company
Berry World

Password
Confirm password

Yes, I'd like to receive product updates and exclusive offers from Netafim. I can unsubscribe at a later time.
By creating an account, you agree to Netafim's GrowSphere™ [terms and conditions](#)

/Log-in to your GrowSphere™ Cloud account

GrowSphere™

Username
Password

[Forgot password](#)

Login

NETAFIM™ orbia

/ Setup your Farm

GrowSphere by METAFARM

Lab Cullacan

15 88% Sun 12 Feb 4:53 AM FS

Farm Management / Irrigation Blocks Crop Units Farm

Farm name
Lab Cullacan

Farm location Click on the map to manually locate your farm
Avenida Javier Calvo 114, 80199 Cullacán Rosales, Sinaloa, Mexico

Country: Mexico State / District: Sinaloa

Time zone: (UTC-07:00) Chihuahua, La Paz... First day of week: Sunday Monday

/ Navigate to 'Add device'

GrowSphere by METAFARM

Lab Cullacan

15 88% Sun 12 Feb 4:54 AM FS

Devices Management

Map Table Graph Add device

23168163

/ Add Device

- Choose 'ONE'
- Input your unit's MAC address
- Click 'Connect'

Add device

Which source would like to add?

Controller / PLC rLink ONE 3rd Party Service

Please check that your ONE device is turned on. You can use a magnet to initiate.

MAC address
E7-00-00-19 Scan Code

Connect

/ Device is active and connected

Add device

Which source would like to add?

Controller / PLC rLink ONE 3rd Party Service

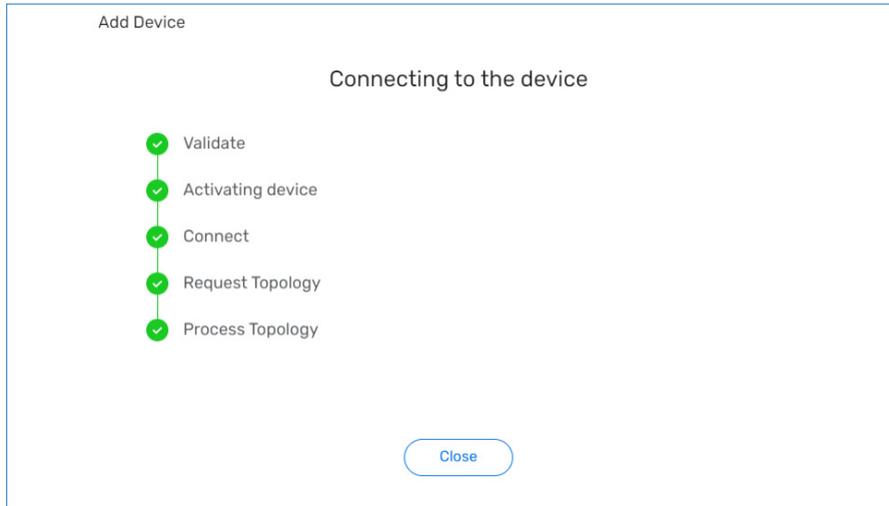
Please check that your ONE device is turned on. You can use a magnet to initiate.

MAC address
E7-00-00-19 Scan Code

Device is active and connected

Proceed

/ Process completed - Congratulations! The set-up process is now completed

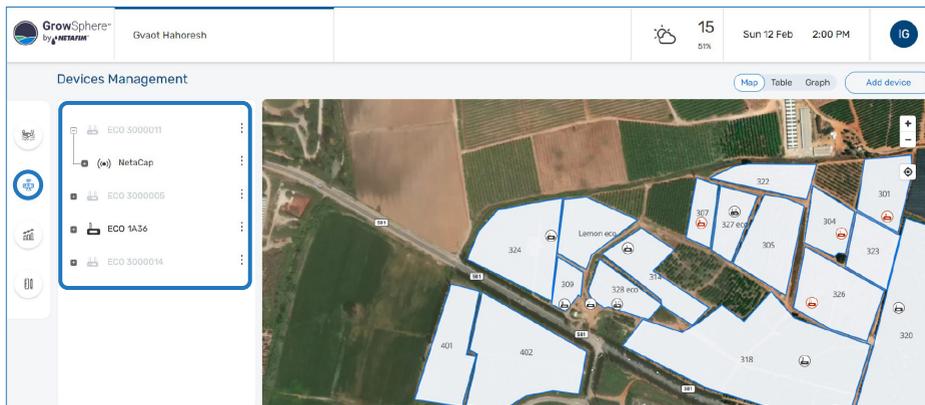


/ Recommended next steps

- You can name each device - By default, the device name will be its serial number
- Define thresholds for relevant sensors according to your preferences
- Create Irrigation Blocks and Crop Units
- Assign the devices to their relevant Irrigation Block
- Define a leading sensor, that ultimately represents your Irrigation Block's status

/ View your Device

Your device and the connected sensors will appear on the menu, in the 'Devices Management' screen





GrowSphere™
Operating System