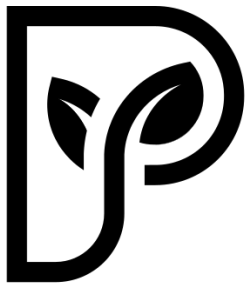


PLANTALYTIX

Smart Sockets

Manual V1.0

Table of content

1 Smart Sockets at a glance

1... Socket socket – This is where the device to be controlled is plugged in

2... Display – Display the current measured values and settings

3... Rotary Click Knob – Turning and pressing can be used to navigate the menu

4..."IN": Sensor/Signal Input – This is where the sensor is plugged in

5... "OUT": Sensor/Signal Output – Here, the sensor signal is forwarded to the nearest power outlet via the connection cable.

6... Connection cable – forwarding the sensor signal to another power outlet. **ATTENTION:** For the 2nd socket, the cable must be plugged into the "IN" input

7... CO2 Sensor – Measures temperature/humidity/CO2. Plugs into "IN"

8... T/rH Sensor - Measures temperature and humidity. Plugs into "IN"

Sensor T/rH oder T/rH/Co2

There are 2 different sensor types to choose from.

T/RH: Standard sensor - measures temperature and relative humidity.

T/RH/CO2: Extra option - measures temperature, relative humidity and CO2.

The long cable allows the sensor to be placed wherever the measurement makes sense. It is generally recommended to position the sensor close to the plants.

Display

For offline operation or for manual settings. The display automatically switches to sleep mode after a certain time so that no interference light can cause problems. By turning or clicking the rotary click button, the display is reactivated.

Rotary click button

By turning the button, the menu items are scrolled through and by pressing the button, settings are taken over or submenus are opened. IMPORTANT: Pressing the button will accept input. By pressing the button for a long time, you can go back (if not already possible in the menu).

Socket socket/plug

The device to be controlled is plugged into the socket. The plug is plugged into a live socket.

IN/OUT sockets

Each Smart Sockets has two sockets, one marked "IN" and one "OUT". The "IN" connector is used for the signal input. This is where the sensor is plugged in. "OUT" is the signal output. Here, a connection cable for another socket is plugged in, which forwards the signal from one socket to the other.

2 General

2.1 What are Plantalytix Smart Sockets?

Our Smart Sockets are flexible and customizable sockets to control any grow equipment automatically and based on measurement data. All sockets are stand-alone, which means that there is no additional controller or similar. and the sockets only have to be plugged in so that they can measure and regulate. The installation takes place in seconds and is very easy to use. Defined limits for the target values for day and night can be used to automatically control and monitor any devices such as humidifiers, dehumidifiers, heating, cooling, lighting, etc.

Each socket can be set individually and has sensors for temperature and humidity on board. This means that each socket also has its own measuring point and this allows the grow tent or grow room to be better controlled and problems to be detected earlier. Depending on your taste, the settings can be made either directly on the display or online via the portal. The portal requires an internet connection, but this option also offers remote access, an analysis tool and a practical user interface. Each unit can be controlled on the following parameters.

- Temperature
- Humidity
- CO2
- Time

This means that with our smart sockets you get extensive monitoring, as well as remote access and automated control of certain climate parameters. The control of the sockets can be adjusted at any time, making them extremely flexible. In combination with our other Plantalytix products, the smart sockets fit seamlessly into the surface and sockets can also be combined with other products from our line.

It is also possible to supply several sockets with sensor data with only 1 sensor. To do this, the output of the sockets is connected to the sensor, to the input of the next socket and thus the measurement signal is simply passed on from socket to socket.

2.2 What does the control unit consist of?

- Smart socket
- Controller with rotary click button and display for adjustment of the setting without a mobile device
- Radio unit that can optionally connect to the Internet

Depending on the option

- Humidity/Temperature or Humidity/Temperature/CO2 Sensor

2.3 How do Plantalytix Smart Sockets work?

The sockets regulate according to the settings of the user based on temperature and/or humidity or also according to time (intervals). The respective settings can be adjusted and changed via the menu on the controller and via the rotary click button. The controller can also be connected to the Internet via your own home network. After that, you can use the Plantalytix online portal to connect to the fan conveniently and from anywhere. The portal can be used to change settings or analyze detailed recordings of the measured values. However, the system can also be used without a connection to the Internet, but data monitoring is only available online.

There are 2 options in operation:

1. Directly with sensor: Here the sensor will be plugged directly into the controller.
2. Indirectly via connection cables: Here, one sensor can provide the measurement data for several smart sockets. To do this, the sensor is plugged into one of the sockets and the others are connected to the sensor-wielding device via the connection cables. This means that all sockets receive the measurement data from the sensor. A possible disadvantage of this method is the reduction of the measuring points.

2.4 Where can I see the data recording?

The data recording can only be seen in the portal. To do this, the controller must be connected to your own home network once. The portal is free of charge and can be accessed under this link/QR code: https://plantalytix-app.com/login

3 Commissioning

- Plug the sensor into the "IN" socket
- Position the sensor in a suitable location. This is usually at the tips of the plants in the planting room. The sensor should not be directly exposed to the humidifier's mist jet, or should be directly under the lamp or in front of the fan.
- Plug the smart sockets into a power outlet or power strip. The sensor must not be covered under any circumstances, otherwise the control system may not function properly.
- Choose settings
    1. Setting up your home network
    2. Select control mode
    3. Setting Target Values

Firmware update

If you're connected to the internet, it's done automatically.

Technical Specification

Maximum power of connected devices: 2200 W

Smart Socket consumption: max. 3 W

Power connection: 230V, 50Hz

4 Features and Settings

4.1 Symbols on the display and their explanation

Current temperature: Displays the currently measured temperature in degrees Celsius

Current CO2: Displays the currently measured CO2 value in ppm

Current humidity: Displays the currently measured relative humidity in %

Device ON/OFF status: Indicates whether the device is currently off (OFF) or on (ON)

Wi-Fi Signal: Displays the strength of the Wi-Fi (WIFI) signal in bars (max. 2 bars). If the symbol is crossed out, Wi-Fi is not available.

4.2 Offline use and use of the display

It is not necessary to be connected to the Internet to use the Smart Sockets. All settings and control can be made directly via the display. However, this form limits the monitoring or viewing of the measured values (graphs).

4.3 Online use

In order to use the full range of functions, it is necessary to be connected to the Internet. To connect to the home network, you can either use the display or a smartphone. All settings, as well as the graphs and other features can be used later via the portal.

2.3 System Time

System time is given as UTC. This corresponds to Coordinated Universal Time, which in turn is CET (Central European Time Zone +1 hour), which is valid for Germany and Austria, for example.

Attention: If the module has a connection to the internet, this time does not need to be set separately. In this case, the module automatically gets the correct time.

2.4 Setting Settings via Browser - Remote Access

The best and easiest way to operate Fridge Grow is via the portal. Here you can conveniently set all settings, analyze graphs over time, and read the current measured values.
Attention: An internet connection is required to use the portal. To do this, you must connect Fridge Grow to your home network and make sure that the connection is good to very good. Disconnections from the internet can lead to gaps in the recording and long waiting times.

2.5 Settings and Operation

For Fridge Grow to be used, the appropriate settings must be made depending on the growth stage. As described earlier, these can be done either directly via the display or Portal. The following section explains the connection to the Portal. Offline operation (directly via the display) does not require an internet connection.

2.5.1 Connecting to the Portal

Using the portal is not strictly necessary but facilitates work and enables graph analysis. For the measured data to be displayed, Fridge Grow must be connected to the portal. 2 steps are required for this:

1. Connecting to the home network
2. Registering on the portal

2.5.2 Connecting to the Home Network

Connecting to the home network is necessary to enable communication with the portal. Connecting to your home network can be done either via a browser or directly via the display.
Option 1: Connect via Browser
Option 2: Connect via Display

Option 1 (recommended) - Establish Connection via Browser (Smartphone, Tablet, PC, etc.)
In this case, you first connect to the controller's WLAN using a third-party device (smartphone, PC, etc.). After that, the controller is connected to the home network and can

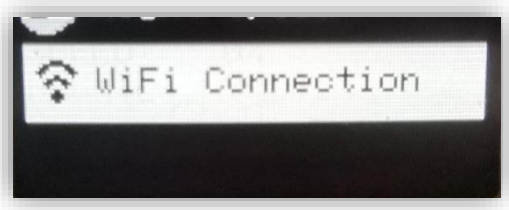
then also be found in this home network. Data can then be exchanged with the portal via the home network. A browser is a program like Firefox, Chrome, Brave, Edge, etc.
Attention: In case of problems, it may be helpful to change the browser or disable any plugins.

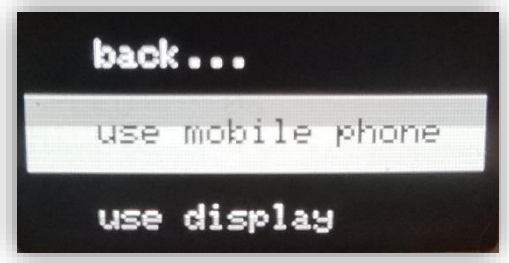
1. Establish a connection to the FG module's WLAN (Accept the WLAN if an error message appears stating that this connection is not connected to the internet).
2. Search for the home network. Connect and enter the password (Attention! Some devices refuse to open the home network search. Check the security settings or use another device if you have problems with the home network search).
3. Open the portal via QR code or via link: https://www2.plantalytix-app.com

4. Create a connection code on the FG module and add a new device in the portal using this code.

2.5.3 Connecting to the Module's WLAN via Browser

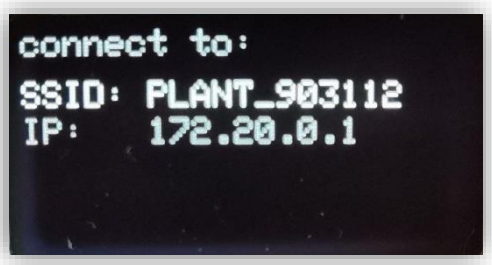
In the display's menu, go to WIFI settings and select "use mobile phone".





The controller's WLAN will now be displayed. This SSID is unique and is regenerated each time. On your device (e.g., smartphone, laptop, etc.), turn on WLAN and search for the

WLAN displayed on the screen. In this case, it would be PLANT_903112. No password is required.



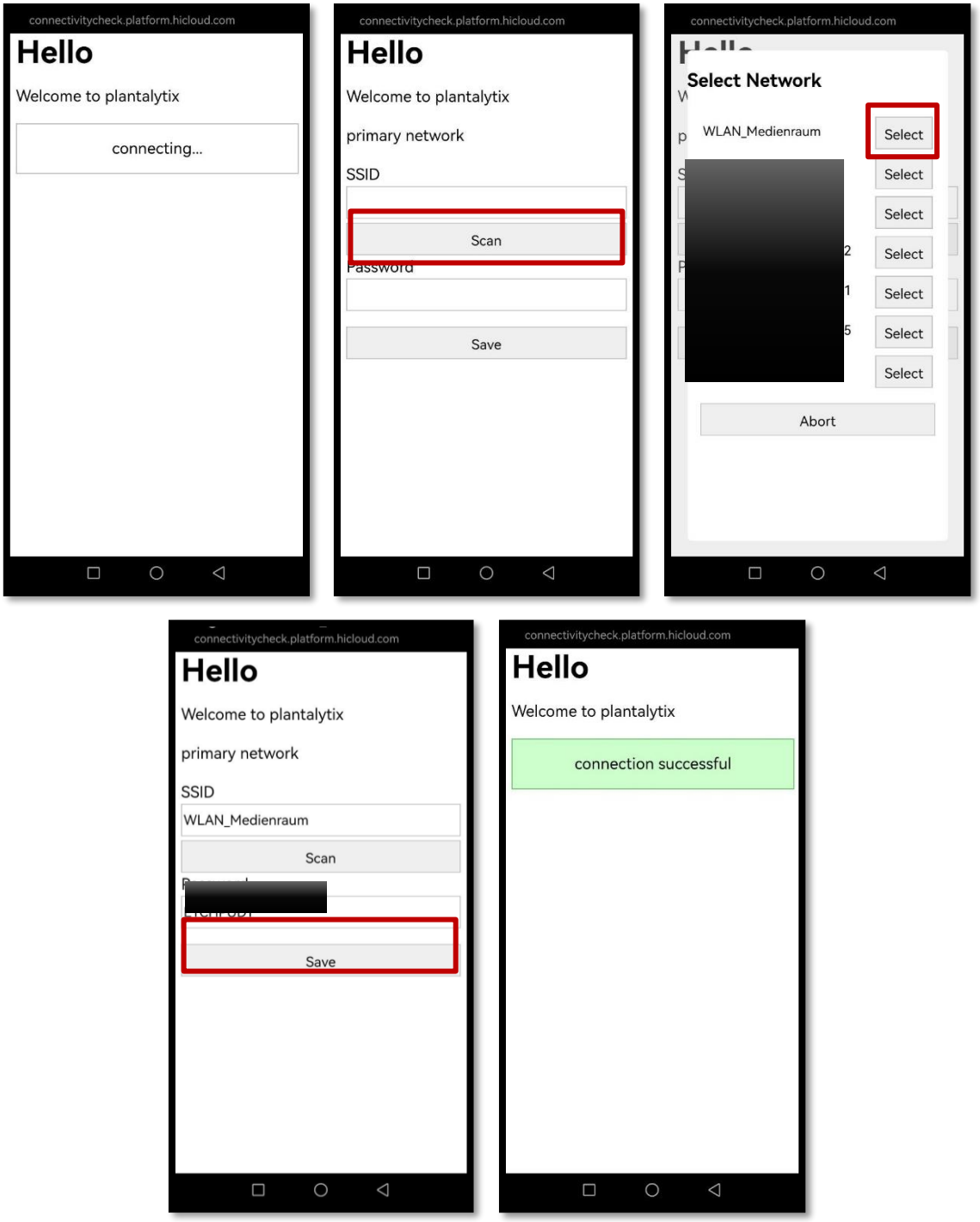
Once the WLAN is found, press "Connect" and accept any messages indicating that there is no internet available with this WLAN (this message only appears in rare cases). You are then directly connected to the module. Now, in the next step, the connection to the internet must be established.

2.5.4 Connecting the Module to the Home Network (Browser)
By default, after connecting to the SSID, i.e., the module's WLAN, a page opens where you need to enter the home network (SSID) and password.

Clicking "Scan" displays all available WLAN networks. Alternatively, the SSID can also be entered manually. Please ensure that the module is within the reception range of the home network or install a signal amplifier (repeater or similar) if necessary.

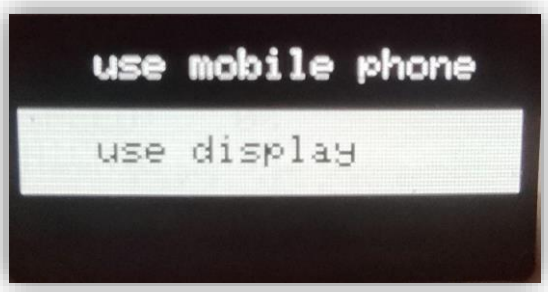
For full functionality, it is essential that a stable and good signal to the home network or internet exists. Select the home network or enter it manually. If no input mask appears, check the security settings of your device you want to use to integrate the module and use another device if necessary.

If you clicked scan, select the corresponding WLAN network via "Select". The WLAN will then be automatically entered in the "SSID" field. Next, the password must be entered and "Save" clicked to save.

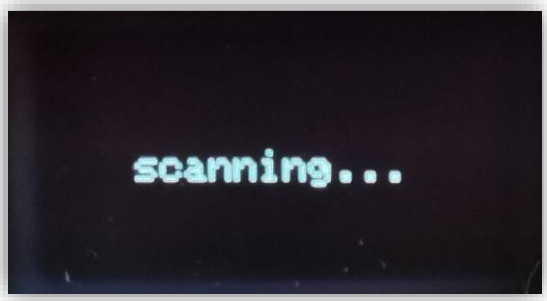

connectivitycheck.platform.hicloud.com
Hello
Welcome to plantalytix
connecting...
connectivitycheck.platform.hicloud.com
Hello
Welcome to plantalytix
primary network
SSID
Scan
Password
Save
connectivitycheck.platform.hicloud.com
Select Network
WLAN_Medienraum
Select
Abort
connectivitycheck.platform.hicloud.com
Hello
Welcome to plantalytix
primary network
SSID
WLAN_Medienraum
Scan
Save
connectivitycheck.platform.hicloud.com
Hello
Welcome to plantalytix
connection successful

The FG module then attempts to connect to the home network and thus to the internet. If the connection is successful, a green box with "connection successful" will be displayed. If this is not the case, check the SSID and password again and enter them again. If this step was successful, the FG module is connected to the home network or the internet, and the portal can be used. On a device and browser of your choice, open the Plantalytix Portal via QR code or via this link: https://www2.plantalytix-app.com

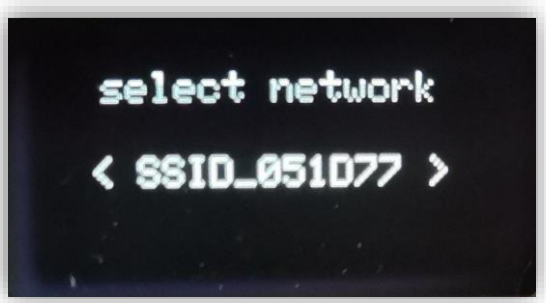
Option 2 - Establish Connection via the Display



After selection, the controller starts searching for WLAN networks.



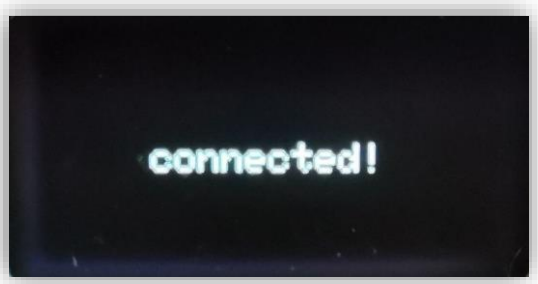
Select home network and press the rotary knob.



Using the rotary-click knob, you can enter the password in the next step. By long-pressing the button, you reach the sub-items “Back” and “Done”. Ensure that a connection to the home network is possible and a good signal reaches the FG module.

Pressing the button on "Done" accepts the password and establishes the connection to the network. Pressing "Back" deletes the last character. Be sure to enter the password correctly. By long-pressing BACK, you can go back one step.

Upon a successful connection, "connected!" is displayed on the screen.



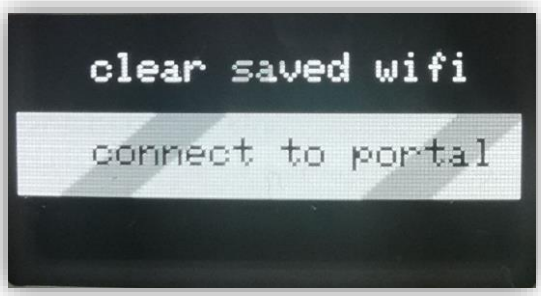
2.6 Registering on the Portal

The portal is used for managing Plantalytix products and for accessing graphs and other features from any location. For this, the module must first be registered (paired) in the portal. To register on the portal, it is essential to connect to the home network beforehand.

2.6.1 Generating a Pairing Code

To connect to the portal, the module must be connected to the home network. After that, a code is generated via the display. This code, in turn, is entered into the portal, thereby registering the module in the portal. Multiple controllers and fans can also be added to the portal and monitored or controlled using the same principle. The code is unique and is regenerated each time.
Attention: If a problem occurs during registration in the portal, be sure to generate a new code again before entering the code in the portal again.

In the menu under WIFI, select the item “connect to portal”.



After that, the pairing code is displayed (the code differs from the example image and is regenerated each time). Write down or remember the code and enter it into the portal later.

2.6.2 Connecting the FG Module to the Portal

Go to https://www2.plantalytix-app.com and log in. If you do not have an account yet, be sure to create a new account under “Create Account” and log in.
The generated code must be entered under “claim device” or “pair device”. To do this, click in the “claim/pair device” field, enter the code there, and press the blue button.

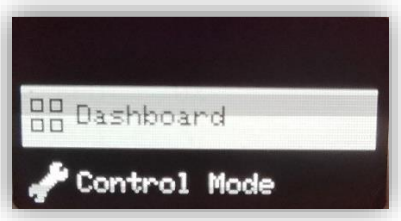
After that, the FG module will be directly displayed in the overview and can be controlled or monitored.

5 Display and settings

The device can be operated via a menu, which is divided into several subject areas.

5.1 Dashboard

The so-called dashboard is the overview of the current values and provides information on the current status. The dashboard is the default display, but can also be opened by clicking on the "Dashboard" menu item.



The dashboard looks different depending on the setting. For example, only in CO2 mode and with the corresponding CO2 sensor is the CO2 value displayed in the overview.

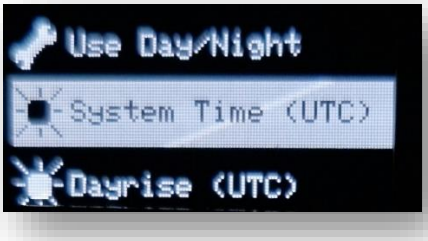
5.2 Day/night cycle

You can generally specify whether your Smart Socket should work with a day and night cycle or not. Depending on this setting, the settings menu or the possible selection options are also adjusted. In day and night mode, you can then make different settings depending on day or night. If this feature is not activated, you can only make a general setting. The daily cycle is determined by Dayrise and Nightfall, i.e. sunrise and sunset. The night is then automatically the remaining time of a 24-hour day.

For example, the humidifier can be set for the target range 50%-60%, but for day and night equally. If day/night mode is activated, you can set e.g.: 40%-50% during the day, 55%-65% at night.

5.3 System time

You can set the time yourself if you work in offline mode, i.e. without an internet connection. If you have a working internet connection, the system time is automatically updated.



5.4 The Control Mode

The control mode allows you to specify the parameters according to which the fan adjusts the speed. The control works automatically. In order to reduce energy and noise to a minimum, the control system is designed in such a way that the speed is only as high as it needs to be in order to achieve the targets.

Attention: The control value is continuously adjusted over 2 minutes to minimize rapid changes and thus noise development.

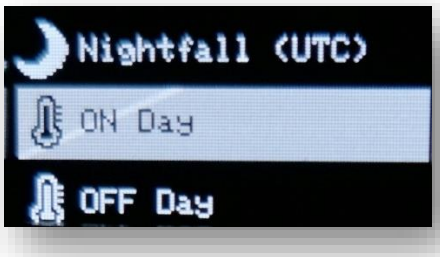
The following options for the regulation are available:

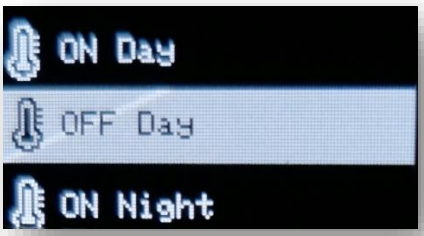
1. **Heater:** For devices that can increase temperature
2. **Cooler:** For devices that can lower the temperature
3. **Humidifier:** For devices that can increase humidity
4. **Dehumidifier:** For devices that can lower humidity
5. **CO2:** For devices that can increase CO2
6. **Timer:** Time-based control. Either periodically or time-based.

   Periodic: The device is switched on at intervals. For example, a water pump is turned on for 1 minute as it is every 12 hours.

   Time-based: Devices that always turn on at a specific time. For example, a UV light that should run every day between 20:00 and 20:15**.**

5.5 DAY ON/DAY OFF und NIGHT ON/NIGHT OFF





Sets the target range for the day cycle and night cycle. ON is the value at which the device switches on. OFF, on the other hand, is the value at which the device then switches off.

For example, if the temperature is selected for ON 20 degrees and for OFF 22 degrees, then the device will run in the range of 20-22 degrees and switch off from 22 degrees.

5.6 ON/OFF

This setting is only available if **NO** day and night cycle is enabled. Here, 24/7 is always regulated in the same way, regardless of whether it is night or night. This setting sets the target range for the whole day. ON is the value at which the device switches on. OFF, on the other hand, is the value at which the device then switches off.

For example, if the temperature is selected for ON 20 degrees and for OFF 22 degrees, then the device will run in the range of 20-22 degrees and switch off from 22 degrees.

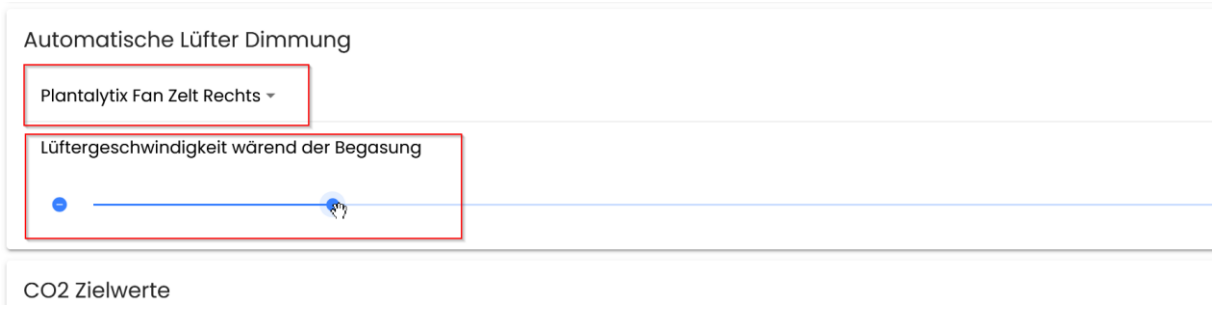
6 CO2 management/combination with Plantalytix AIR and AIR PK

You can also combine the smart sockets with our smart fans for CO2 fumigation. This allows the fan speed to be changed or reduced during gassing. As a result, the CO2 is no longer applied from the grow tent as quickly.

ATTENTION: Only a combination with Plantalytix AIR models and the AIR PK Controller for Prima Klima fans is possible. The combination is ONLY possible via the portal. The fan must be inserted FIRST in the portal so that it can then be selected for the smart sockets.

It is strongly recommended to do the CO2 fumigation at intervals, i.e. not constantly. Therefore, "Periodic gassing" must be selected first in the CO2 mode.

In the next step, the fan is assigned to the CO2 socket. If the fan is already in the portal, it can be selected from the drop-down menu (top red rectangle). The setting "Fan speed during gassing" determines the speed at which the fan should run during gassing.



7 Safety note CO2

Fumigation with CO2 can be dangerous. Care must be taken to ensure that the CO2 value in the installation room does not rise too much and fresh air supply must be made possible. Well-ventilated rooms and a CO2 meter in the room are absolutely necessary. If the CO2 concentration is high, the room must not be entered and any further fumigation with CO2 must be avoided. CO2 fumigation may only be carried out by trained specialists.

8 Service

To get in touch with customer service, contact us at sales@plantalytix.com.

9 Safety

1. Use indoors only
2. Is not waterproof
3. Do not make any changes to the hardware or software on your own

9.1 Further information on security

1. Use the device only in compliance with the mains voltage noted on the device.
2. The maximum specified power of the sockets must not be exceeded.
3. Protect yourself from electric shock. Avoid physical contact with grounded parts such as pipes and radiators.
4. Before use, check all device parts including power cord and any used extension cords as well as the plug connections to proper condition.
5. Do not use the appliance if it has been dropped or water has been poured into the inside the device.
6. Do not use the device during a thunderstorm.
7. Unplug in case of defects or malfunctions.
8. Never hold or carry the device by the cables.
9. Keep your distance between all parts of the appliance and warm surfaces.
10. Use the device only in dry indoor areas.
11. Never reach for a device that has fallen into water. Immediately drag the Power plug from the socket.
12. Do not expose the device to shocks or drop it.

9.2 Repair

1. Do not open the device.
2. Repairs to electrical appliances may only be carried out by specialists. Improper repairs can result in considerable dangers for the user.
3. For repairs, contact customer service or an authorized dealer.
4. If the device or parts of the device are damaged, it must be repaired by the manufacturer or an authorized service center.

9.3 Fire

1. If the user is not used as intended or if the operating instructions are disregarded, there may be a risk of fire!
2. Do not use the device near highly flammable fabrics.

9.4 Service

1. The device is only intended for the purpose described.
2. The manufacturer cannot be held liable for any damage caused by improper or reckless use.
3. The specifications regarding the maximum outputs are always nominal powers. (Not "dimmed powers" with regulated outputs.)
4. Do not place objects on the device.
5. Protect the device from high temperatures.
6. When handling CO_2, follow the appropriate safety instructions.

PLANTALYTIX

EG-Konformitätserklärung

CE

Der Hersteller / Inverkehrbringer

microgreenbox gmbh

erklärt hiermit, dass folgendes Produkt

Produktbezeichnung: Plantalytix Smart Socket

allen einschlägigen Bestimmungen der angewandten Rechtsvorschriften der

Niederspannungsrichtlinie 2014/35/EU
EMV Richtlinie 2014/30/EU
RoHS-Richtlinie 2011/65/EU

- einschließlich deren zum Zeitpunkt der Erklärung geltenden Änderungen - entspricht. Die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung trägt der Hersteller. Diese Erklärung bezieht sich nur auf das Produkt in dem Zustand, in dem es in Verkehr gebracht wurde; vom Endnutzer nachträglich angebrachte Teile und/oder nachträglich vorgenommene Eingriffe bleiben unberücksichtigt.

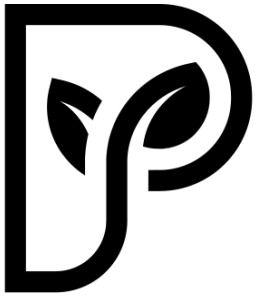
Folgende harmonisierte Normen wurden angewandt:

EN61000-6-3 (2022)
EN61000-6-1 (2019)
EN55014-1 (2017)
EN55014-2 (1997)

Name der Person, die bevollmächtigt ist, die technischen Unterlagen zusammenzustellen:
Alexander Polivka / Geschäftsführer

Ort: Windhaag bei Freistadt, Marktgasse 1
Datum: 10.7.2025

(Unterschrift)
Alexander Polivka



PLANTALYTIX

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