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User guide

Aranet4 HOME/Aranet4 PRO



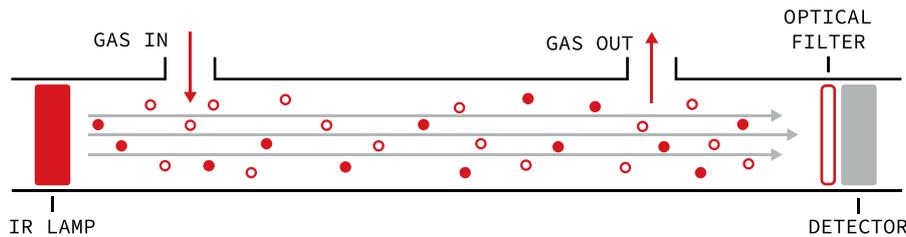
About the Aranet4 monitor

Aranet4 monitor is an innovative wireless device for effortless monitoring of indoor air quality – CO₂, relative humidity, temperature and atmospheric pressure*. The device is suitable for monitoring the CO₂ level at home, in school, office, or any other indoor environment.

Measurement data is displayed on a power-efficient e-ink screen with a long battery life. Additionally, the device provides visual and optional buzzer notifications when the CO₂ concentration becomes unhealthy. CO₂ concentration levels of 1400 ppm (parts per million) and up are unhealthy and can cause drowsiness and decrease cognitive function by 50 %. A high concentration of CO₂ is an indicator of insufficient ventilation, which can increase the risk of infection with airborne diseases.



Aranet4 uses the nondispersive infrared (NDIR) sensor to measure the CO₂ concentration. The CO₂ gas in the chamber absorbs infrared light; this absorption is measured by the sensor. The less light passes through, the higher the CO₂ concentration. CO₂ absorbs only a specific wavelength of light, therefore an optical filter is used.



Download the Aranet4 app and connect via Bluetooth with up to six devices. The app allows you to configure the Aranet4 device and access the data monitored by the device. Read a detailed description of all the possibilities that the app offers in the chapter [How to pair Aranet4 to my smart device using the Aranet4 app on page 5](#).

Additionally, up to 100 Aranet4 PRO devices can be connected to the Aranet PRO base station. Refer to the chapter [Using Aranet4 device with the Aranet PRO base station on page 6](#).

There are two Aranet4 models – Aranet4 HOME and Aranet4 PRO. You can find out more about how they differ in this [informative leaflet](#).

Measurement and data transmission intervals are 1,2,5, or 10 minutes. The default measurement interval is set to 5 minutes.**

The amount of the stored historic measurement data depends on the measurement interval of the device (starting from firmware v1.4.14):

Measurement interval, minutes	Historic data availability, days
10	30
5	15
2	7
1	3.5

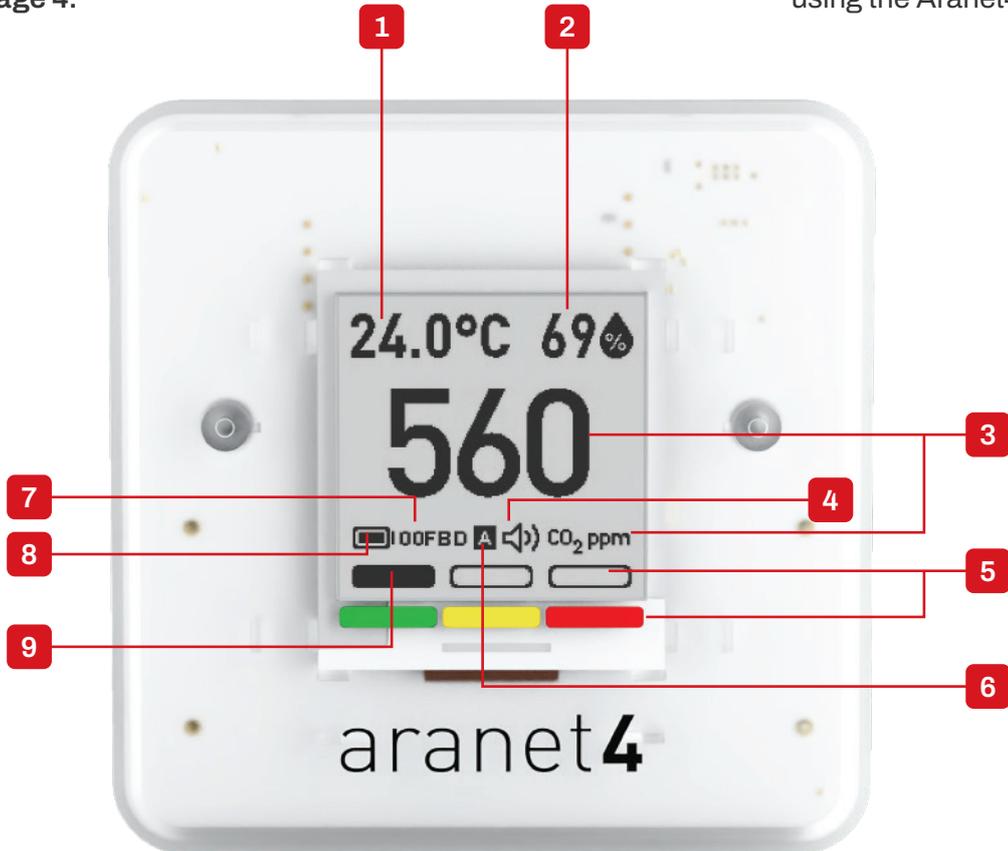
The data that is older than the possible storage period will be automatically overwritten in the device memory with the newly measured data.

* Atmospheric pressure data measurements are available only on the Aranet4 app. More information is in the chapter [How to pair the Aranet4 to my smart device using the Aranet4 app on page 5](#).

** For Aranet4 PRO paired to Aranet PRO base station.

The Aranet4 sensor screen explained

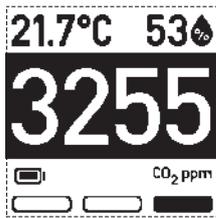
- 1** Temperature of the air in Celsius or Fahrenheit. To change the temperature units, refer to the chapter **Switch positions explained on page 4**.
- 2** Relative humidity of the air (RH %). 
- 3** CO₂ concentration level in ppm (parts per million).
- 4** Buzzer status. The speaker symbol  is visible when the buzzer is enabled. The buzzer's settings can be adjusted using the Aranet4 app.



- 5** CO₂ threshold level indication
 Green represents a good CO₂ level (below 1000 ppm*)
 Yellow represents the average CO₂ level (1000 to 1400 ppm*)
 Red represents an unhealthy CO₂ level (above 1400 ppm*)
- 6** CO₂ calibration mode indication. Symbol is **A** displayed when calibration is set to automatic. No letter is displayed when calibration is set to manual mode.
- 7** For Aranet4 PRO only: Monitor identification number comprising five hexadecimal symbols of the Aranet4 PRO device (wirelessly connecting **Aranet PRO base station & Aranet Cloud**).
- 8** Battery level. 
- 9** Adjustable CO₂ thresholds that can be set using the Aranet4 app. 

* These are default thresholds that can be reconfigured using the Aranet4 app.

Aranet4 screen indications



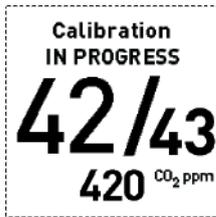
The inverted screen alerts when CO₂ concentration has reached the red threshold level.



Do not remove batteries during a firmware upgrade.



The batteries are empty. Replace them.



The calibration progress.



Six-digit pin code displayed for wirelessly connecting the device with your smartphone to the Aranet4 app via Bluetooth.



Temperature below zero can damage the sensor. The recommended operating temperature of the sensor is 0 °C to 50 °C (32 °F to 122 °F).

CO₂ calibration

The Aranet4 monitor is calibrated at the factory. However, the user can carry out CO₂ calibration manually when needed. The general recommendation is to calibrate Aranet4 once a year, but more often if it is used in dusty environments. During the manual calibration, the Aranet4 device must be exposed to fresh outdoor air. Keep a distance of at least one meter from the device during the calibration process – no humans, animals, or plants should be closer to the device during calibration.

You can calibrate your Aranet4 manually with or without the app. To manually calibrate Aranet4 with the Aranet4 app, pair your device with your smartphone (refer to the chapter [How to pair Aranet4 to my smart device using the Aranet4 app on page 5](#)), open Settings, and choose CO₂ calibration.

You can also calibrate the Aranet4 monitor manually without the app. To perform the manual CO₂ calibration, flip the switch from **MANUAL** to **AUTO** and then back to **MANUAL** (flip the switch quickly, with less than one second between each movement). Once started, the calibration progress will be displayed on the screen of the device. In case of a calibration failure message, make sure that the device is still in a fresh air environment and repeat the process from the beginning. To learn more about the switch positions, see the next chapter [Switch positions explained on page 4](#).

If the automatic calibration mode is used, the Aranet4 device needs to be exposed to fresh air at around 420 ppm (for instance, outdoors) for at least 8 hours each month.

Switch positions explained

The Aranet4 monitor has four small configuration switches that allow the user to adjust the settings.

To access the configuration switches, open the cover of the battery compartment on the back of the device. With the batteries remaining inside, adjust the switch position (up or down) using the pin tool supplied with the Aranet4 device.

You can adjust the switches with the batteries removed as well, **but note that, if you remove the batteries, it will erase the measurement history from Aranet4 memory. To avoid this, update the data in the Aranet4 app before removing the batteries.** The new settings will start working once the batteries are back in.

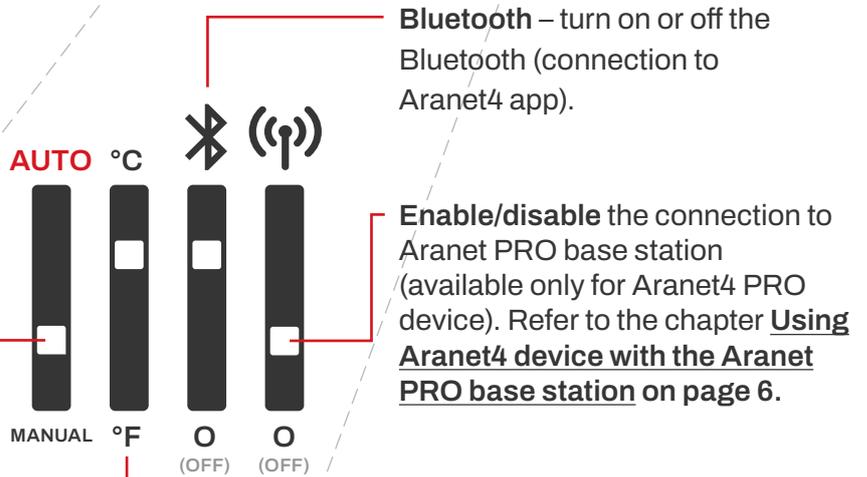


Switch tool (PIN) can be found in Aranet4 Quick Start Guide English version.

The positions of the configuration switches have the following meaning:

AUTO / MANUAL – change the CO₂ calibration mode to either manual (default position) or automatic mode.

Temperature measurement units – change to Celsius or Fahrenheit degrees.



How to pair Aranet4 to my smart device using the Aranet4 app

Download the Aranet4 app and connect your smartphone to the Aranet4 device via Bluetooth* to:

- Access real-time measurement data.
- Store up to 90-day measurement history and export it as a CSV file.
- Track atmospheric pressure data.
- Adjust CO₂ thresholds and set the buzzer.
- Change sensor measurement interval.
- Access all nearby Aranet4 devices.
- Carry out the CO₂ calibration of the device.
- Activate firmware updates for the Aranet4 devices.
- Enable Aranet4 connection to Homey smart home system.
- Display Aranet4 measurements on larger TV screens.



Aranet4 App is currently available on iOS and Android devices. Requires Android 6.0 or newer or iOS 11.00 or newer.

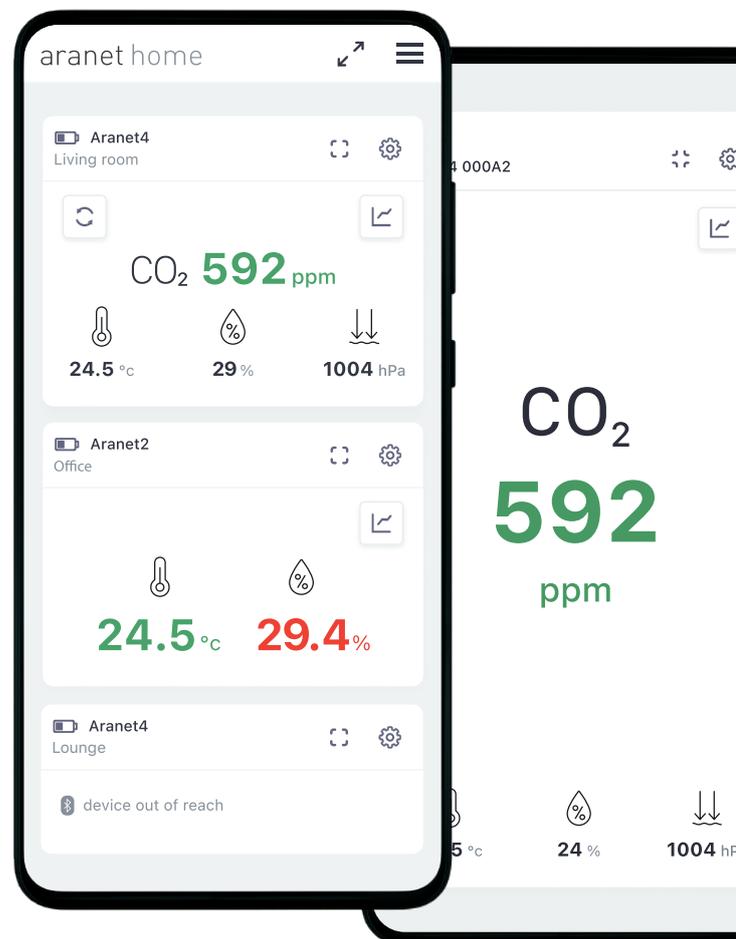
Find out more about the Aranet4 app in forum.aranet.com/all-about-aranet4

* Access to the device's location should be allowed because of the general requirement for Bluetooth apps to work correctly on Android OS.

To connect your Aranet4 to your smart device, make sure Bluetooth connectivity is enabled on your mobile device and your Aranet4 monitor, and follow these steps:

- 1 Launch the Aranet4 app.
- 2 Add Aranet4 to the app by pressing "+ PAIR NEW DEVICE" button.
- 3 Select the necessary Aranet4 from the devices list and press "+ PAIR".
- 4 Accept the pairing procedure.
- 5 Enter the 6-digit pin code that is shown on the display of your Aranet4 device.

We advise you to check the app for Aranet4 newest firmware versions regularly and use the offered upgrades.



Using Aranet4 PRO monitor with the Aranet PRO base station

The Aranet PRO base station collects and stores data from all types of Aranet sensors, including Aranet4 PRO. Up to 100 sensors can be connected to one base station. The Aranet PRO base station has an internal memory to store the measurement data for up to 10 years.

Find out more about the Aranet PRO base station at aranet.com and follow the [Aranet PRO User Manual](#) on how to pair Aranet sensors to the Aranet PRO base station.

Returns and warranty

- Aranet4 protection class: IP 20.
- Aranet4 is not impact-resistant.
- Do not use Aranet4 in high humidity environments (greater than 85 %).
- Do not leave Aranet4 in direct sunlight.

In case of a return or a warranty claim, please fill out the RMA form on the Aranet web page rma.aranet.com. For Terms and Conditions refer to aranet.com/terms-and-conditions.

If you have purchased your device on Amazon, please follow Amazon's Returns Policy.

Frequently asked questions (FAQ)

If you can't find the answer that you are looking for in this manual, please take a look at the Aranet Forum at forum.aranet.com/all-about-aranet4. Otherwise, send us a message to support@aranet.com.

Additional links

More information about Aranet4 HOME and Aranet4 PRO can be found at aranet.com/products/aranet4

FCC compliance statement

This equipment has been tested and found to comply with the limits for a Class B digital device, under 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 following the instructions, may interfere with radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment interferes with radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to avoid the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.



Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

“This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.”

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To get up-to-date information about accessories and their availability, please contact a sales representative.

Industry Canada Regulatory Statement

This device complies with Industry Canada's license-exempt RSSs. Operation is subject to the following two conditions:

- (1) This device may not cause interference; and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.