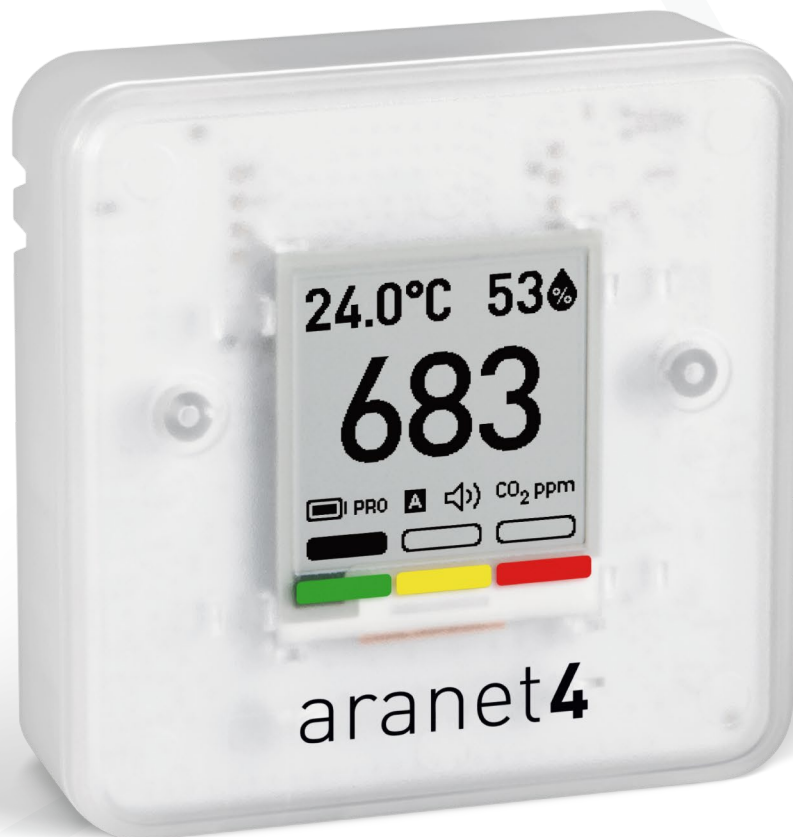# Aranet4 HOME,
Aranet4 PRO

USER MANUAL

Monitors air quality at your home, school, office or any other indoor private or public spaces.
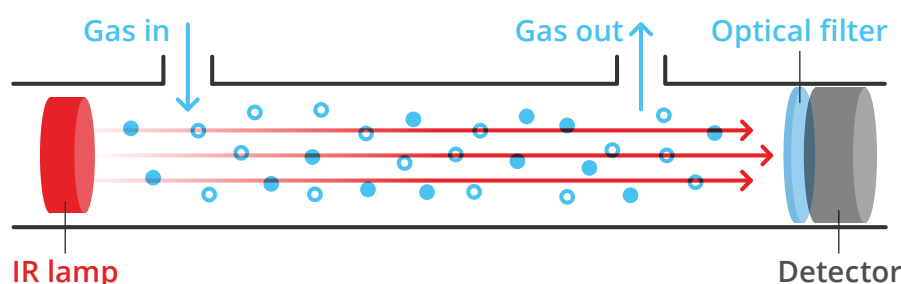
About the Aranet4 device

The Aranet4 sensor is a battery powered CO_2 meter with additional measurements of temperature, relative humidity and atmospheric pressure. * The device is suitable for monitoring the CO_2 level at home, in school, office or any other indoor environment.

Measurement data is displayed on a power-efficient e-ink screen allowing for long battery life. Additionally the device can provide visual and sound notifications in case of the CO_2 concentration becomes unhealthy. The high concentration level of 1400 ppm (parts per million) – level typically associated with complaints of drowsiness and poor air quality.

Good (Green) — Average (Yellow) — Unhealthy (Red)
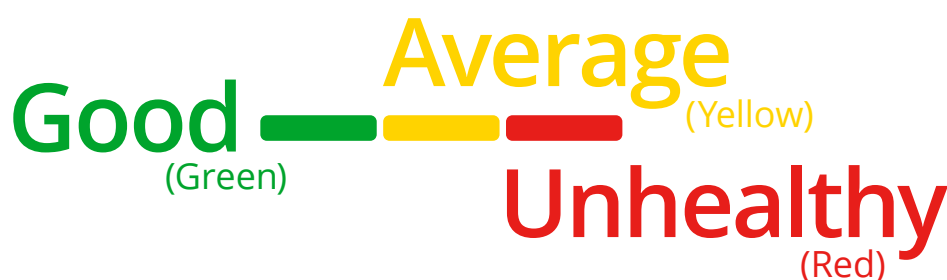
Data transmission interval: 1, 2, 5 or 10 minutes.
Default measurement interval is set to 5 minutes.

Aranet4 uses the nondispersive infrared (NDIR) sensor to measure the concentration of CO_2. The CO_2 gas in the chamber absorbs infrared light and this absorption is measured by the sensor. The less light passes through – the higher the CO_2 concentration. The CO_2 gas absorbs only a specific wavelength of the light therefore an optical filter is used.

Gas in — Gas out — Optical filter

IR lamp — Detector

By using the Aranet4 app on your smart device it is possible to wirelessly access real-time data and up to one week of historical measurement data. The app also allows you to configure the Aranet4 device. The Aranet4 app supports connection of several Aranet4 sensors to monitor their parameters remotely from a single smart device.

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**.

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* Atmospheric pressure data measurements are available only on the Aranet4 app.
More information in chapter **How to pair the Aranet4 to my smart device**.

The Aranet4 sensor screen explained

1

Temperature of the air in Celsius or Fahrenheit. Refer to the switch positions of the Aranet4 in chapter **Switch positions explained**.
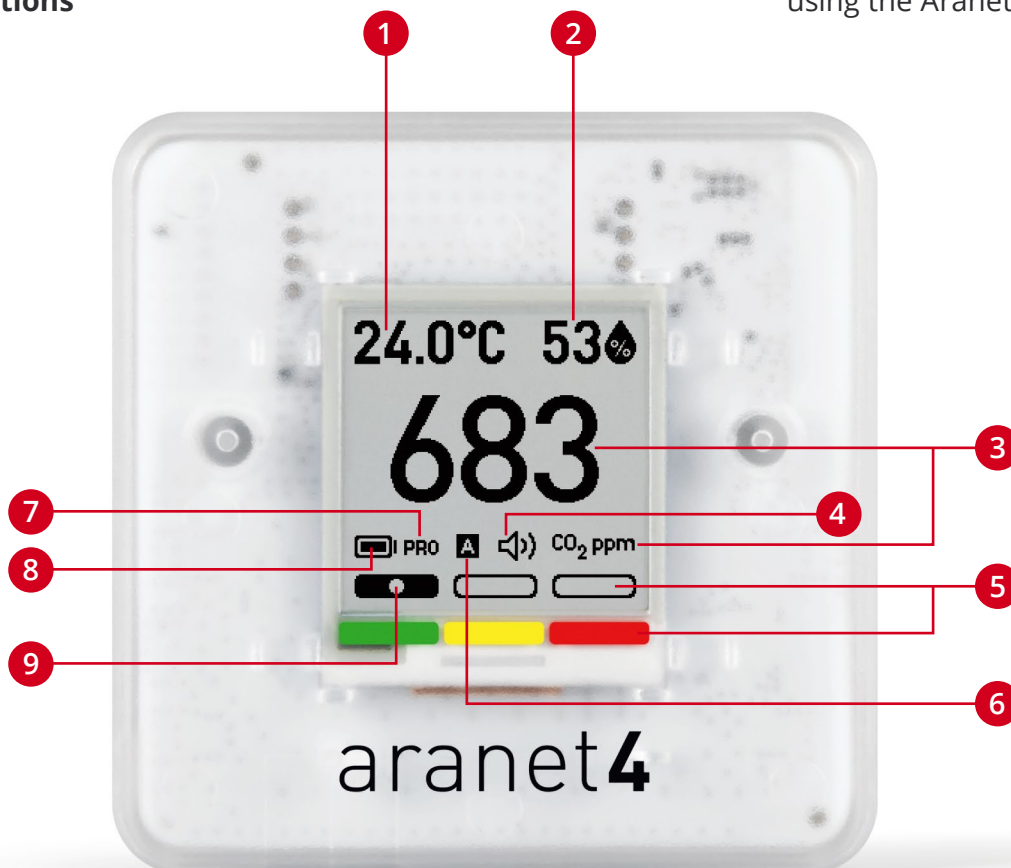
2

Relative humidity of the air (RH %).

3

CO_2 concentration level in ppm (parts per million).

4

Alarm status. The 🔊 speaker symbol is visible when alarm function is activated. The alarm settings can be adjusted using the Aranet4 app.

5

CO_2 threshold level indication.

Green represents normal CO_2 level (below 1000 ppm)

Yellow represents average CO_2 level (1000 to 1400 ppm)

Red represents high CO_2 level (above 1400 ppm)

6

CO_2 calibration mode indication. Symbol "A" 🅰 is displayed when calibration is set to automatic. No letter is displayed when calibration is set to manual mode.
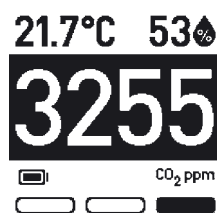
8

Battery level. 🔋

7

The PRO version of the product (can be wirelessly connected to **Aranet PRO base station** & **Aranet Cloud**)

9

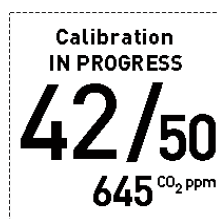Adjustable ▬●▬ CO_2 thresholds that can be set using the Aranet4 app.

The inverted screen alerts when CO_2 concentration is too high and unhealthy.
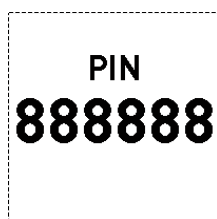
Do not remove batteries during firmware upgrade.

The battery is exhausted. Replace the batteries.

The calibration progress.

Pin code representation, when pairing device with smartphone trough Aranet4 app via Bluetooth

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

CO_2 calibration

The Aranet4 device is calibrated at the factory. However, the user can perform CO_2 calibration manually when needed. General recommendation is to calibrate Aranet4 device once every year, but more often if it is used in dusty environments. During the manual calibration the Aranet4 device must be exposed to fresh air (about 420 ppm of CO_2) and the environment should be stable (not changing). Maintain a distance of at least 1 meter from the device during the calibration process.

To start the manual CO_2 calibration, change the position of the switch (see next chapter **Switch positions explained**) from **MANUAL** to **AUTO** and then back to MANUAL (maintain maximum of 1 second between each movement).
The calibration progress will be displayed on the screen of the device. In case of a calibration failure message, make sure that the environment requirements are met and repeat the process from the beginning.

Manual calibration can be done using the Aranet4 app as well.

In case of automatic calibration mode, the Aranet4 device needs to be exposed to a fresh air at around 420 ppm (for instance, outdoors or room with good air exchange) at least 8 hours each month.

Switch positions explained

The Aranet4 device has four small configuration switches that allow the user to adjust the preferences of the device.

To access the configuration switches, open the cover of the battery compartment on the back of the device. While batteries remain inserted, adjust the switch position (up or down) using the pin tool that is supplied with the Aranet4 device (or any other suitable thin tool).

Switches can be adjusted while batteries are removed as well, **but note that if you remove the batteries, the measurement history will be erased from Aranet4 memory.** The changed preference setting will be enabled once the batteries are inserted back in.
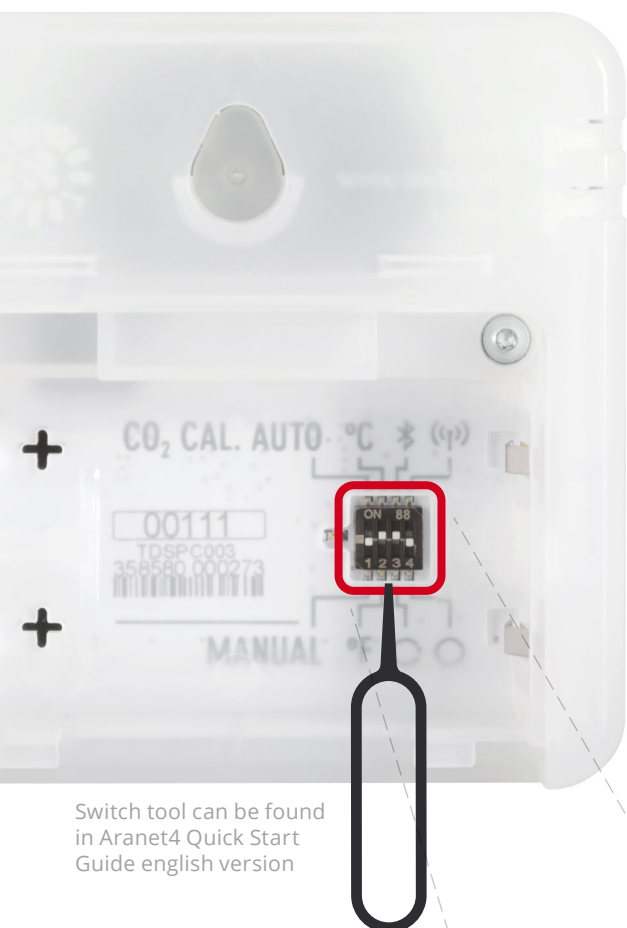
Switch tool can be found in Aranet4 Quick Start Guide english version

The positions of the configuration switches have the following meaning:

Bluetooth / 0 – enable or disable (0) the Bluetooth connectivity.

AUTO / MANUAL – switch the CO_2 calibration mode to either manual (default position) or automatic mode.

Use **MANUAL** calibration mode in case you are not certain which mode to use.

AUTO °C

MANUAL °F   O   O
                (OFF) (OFF)
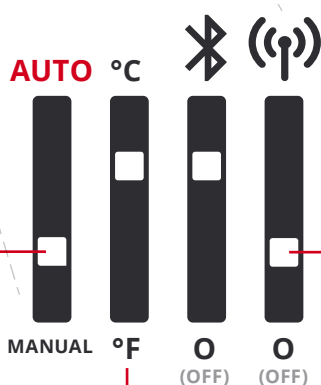
Enable/disable device connectivity to Aranet radio (available only for the PRO version of the product.). Refer to chapter **Using Aranet4 device with the Aranet PRO base station**.

Temperature units – switch between either Celsius or Fahrenheit degrees.

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

Connect your smartphone with the Aranet4 device via Bluetooth by using iOS or Android (access to device's location should be allowed due to general requirement for Bluetooth apps to work correctly on Android OS) app to:

- ➕ Access real-time measurement data overview

- ➕ View up to seven day measurement history

- ➕ View atmospheric pressure data

- ➕ Set adjustable CO_2 thresholds

- ➕ Set alarms and frequency of sensor readings

- ➕ Access all nearby Aranet4 devices

- ➕ Do the CO_2 calibration of the device

- ➕ Get access to the available firmware updates

- ➕ Connect to smart devices and show the readings on larger TV screens

GET IT ON Google Play

Download on the App Store

Your mobile phone must have either Android 6.0 or newer (for Android) or iOS 11.00 or newer (for iPhone) in order for you to be able to download the app.

To connect your Aranet4 device to your smart device, make sure Bluetooth connectivity is enabled on your smart device and on your Aranet4 device, and **do the following steps:**

1 Launch the Aranet4 app and on the main page (My devices) add a new device by clicking on the (+) symbol.

2 Select your Aranet4 device from the list.

3 When prompted, confirm the start of pairing.

4 Type in the 6 digit passcode that is shown on the display of your Aranet4 device.

Try the New Aranet4 Display App

That's the easiest way to show the current air quality readings on larger screens in restaurants, cafes, bars, supermarkets, gyms or any other public spaces so that people can be aware that the facilities are safe from airborne COVID-19 risks.
aranet4.com/displayapp
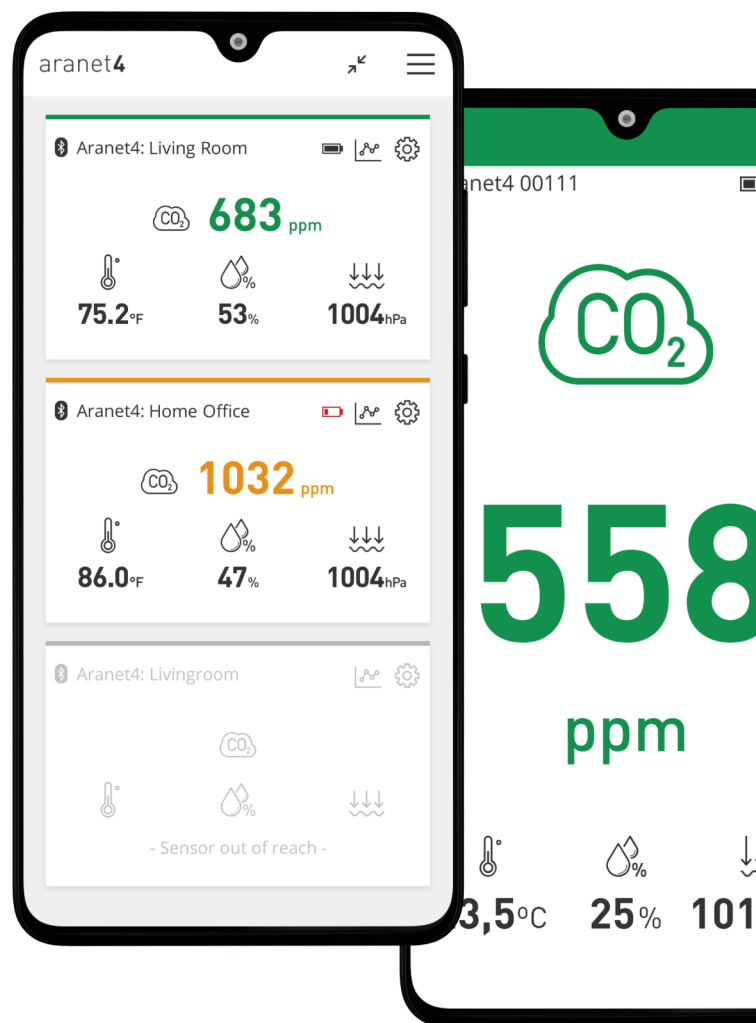
More answers about Aranet4 app in
forum.aranet.com

Using Aranet4 PRO device with the Aranet PRO base station

The Aranet PRO base station serves as a device for collecting, storing and maintaining data from all types of Aranet sensors, including Aranet4 PRO. Up to 100 sensors can be connected to a single Aranet PRO base station which has a capacity to store the measurement history up to 10 years.

To connect the Aranet4 PRO to the Aranet PRO base station, initiate the sensor pairing mode on the Aranet PRO base station and start the pairing on the Aranet4 device by changing the switch position from disable (0) to enable (radio symbol). Alternatively, while switch is in the enable position (radio symbol on screen is visible), remove and reinsert the batteries. Please note, that by removing the batteries, the measurement history will be erased from the Aranet4 memory.

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

In case of a return or a warranty claim, please contact your sales representative.
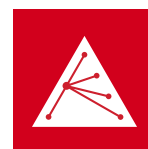For Terms and Conditions refer to **aranet4.com/terms-conditions**.

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**. Otherwise send us a message to **support@aranet.com**.

Additional links

More information about the product and documentation can be found **https://aranet.com/product/aranet4-sensor/**

Aranet
Forum

**DISCUSS. GET SUPPORT.
EXCHANGE YOUR EXPERIENCE.**

FCC Compliance statement

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:

- –   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 sales representative.

Industry Canada Regulatory Statement

This device complies with Industry Canada's licence-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.