aranet
by SAF Tehnika

Radiation sensor
Quick start guide
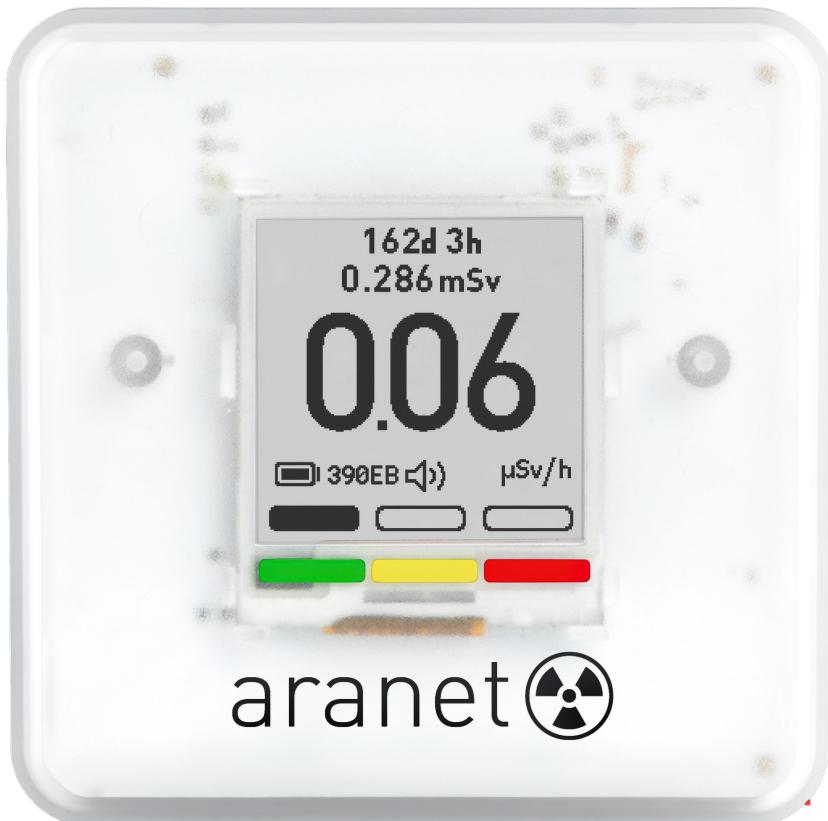
Product number:
TDSNUCH1
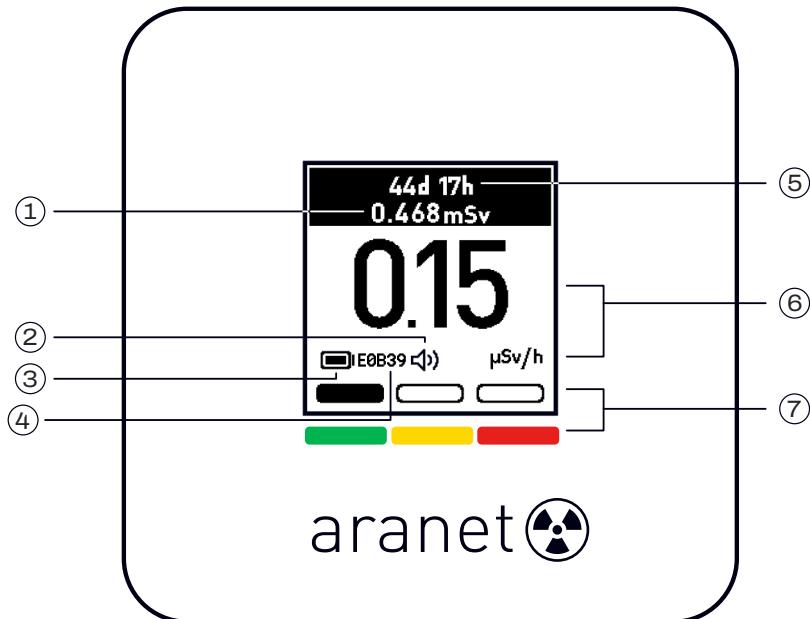
1. Total dose

2. Dose rate

3. Battery level

4. Device number

5. Integration time

6. Dose rate

7. Dose rate threshold indication

What does Aranet Radiation measure?

Dose rate

describes how strong the ionizing radiation (γ, β) is at a given moment. It is expressed in microsieverts per hour (μSv/h) or millirems per hour (mrem/h).

If radiation levels rise, the device uses colors (green, yellow, and red) to alert you, dimming the screen for high values (red level). The default threshold levels are based on scientific recommendations[1-4], but you can adjust them as needed through Aranet Home app.

Green
Normal background radiation <0.20 μSv/h

Yellow
Radiation above typical background levels 0.20-10.0 μSv/h

Red
Prolonged exposure radiation levels linked to health problems, >10.0 μSv/h

Total dose

of ionizing radiation (γ, β) encountered during the integration time is expressed in millisieverts (mSv) or rems (rem). Total dose of ionizing radiation is a critical metric for ensuring environmental safety and personal health. If the average rate at which the total dose has been acquired exceeds 0.20 μSv/h, then the upper part of the screen will be dimmed.
This reading can be reset from the Aranet Home app or by pushing the mechanical button behind the battery compartment lid. To perform a reset, press and hold the button for 5 seconds.

[1]EURDEP Gamma Dose Rates Advanced Map, Joint Research Centre of the European Commission, accessed 23 October 2023.
[2]Radiation Thermometer, CDC – Centers for Disease Control and Prevention, accessed 23 October 2023.
[3]Limit values in radiation protection, The Federal Office for Radiation Protection (BfS) of Germany, accessed 23 October 2023.
[4]Health Effects of Ionising Radiation on People, National Environment Agency of Singapore, accessed 23 October 2023.

When a reset is performed, the data will be permanently lost. You should reset this history only if:

- The device is passed to you by someone else and the data does not apply to you anymore.

- You just want to start fresh, like at the beginning of a new year, as the data will be permanently lost.
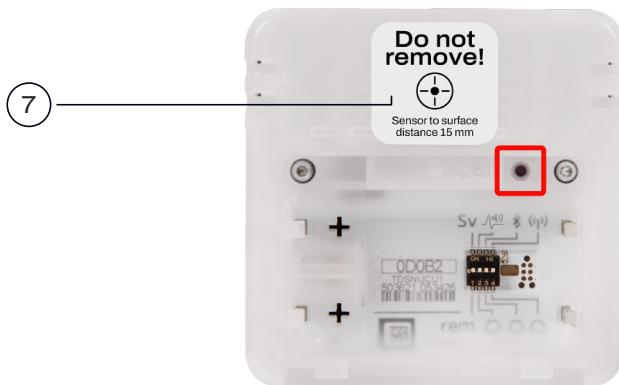

Setting up the device

Insert the batteries, and your Aranet Radiation device is ready to go!
Please wait a few minutes for the first measurement to appear.
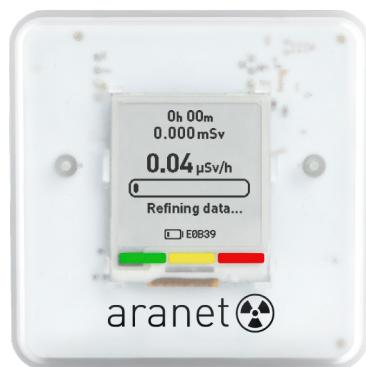
Please wait
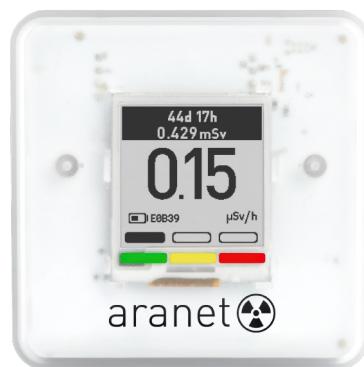
Ready to use

⚠ CAUTION

- Do not remove the sticker on the back of Aranet Radiation sensor.
- Aranet Radiation is not impact-resistant. Exposure to strong accelerations can lead to erroneous device measurements.
- Do not expose Aranet Radiation to high-humidity environments.
- Exposing the sensor to X-ray scans, like those at airport baggage controls, temporarily raises the dose rate reading and total dose readings, which can be disregarded or mitigated by removing the sensor batteries during scans.

Configuration switches

Switches can be found behind the batteries. Use the attached pin to adjust these settings.

LoRa transmission (non-functional for HOME sensors): On (default) or Off.

Unit switch :
Sv (SI unit, default) or rem

Sv

rem   OFF   OFF   ON

Connection to Aranet base stations (non-functional for HOME sensors)
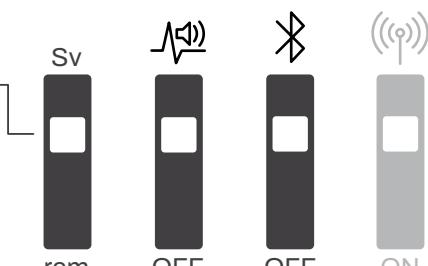
Pulse buzzer: On (default) or Off.
When this feature is on, the device beeps every time it detects ionizing radiation event, similar to a Geiger counter. More frequent beeps indicate higher radiation levels.

Bluetooth: On (default) or Off

For more technical information see Aranet Radiation sensor datasheet.

(See more)

Aranet Home app

Scan to download the app or click the button
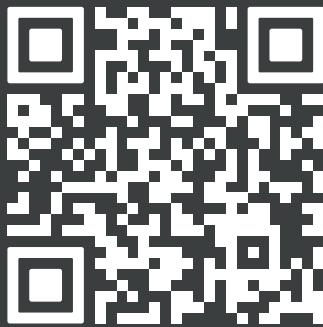
Go to App

Available on the Google Play

Download on the App Store

9:41

aranet home

🔋 Aranet Radiation Sensor
Living room

☢ **0.06** µSv/h

7 days **5** hours **0.013** mSv

🔋 Aranet4
Living room

CO₂ **1270** ppm

🌡 **24.5** °c   💧 **24** %   ⬇ **1004** hPa

🏠 Home   🛒 Shop   ⚙ Settings
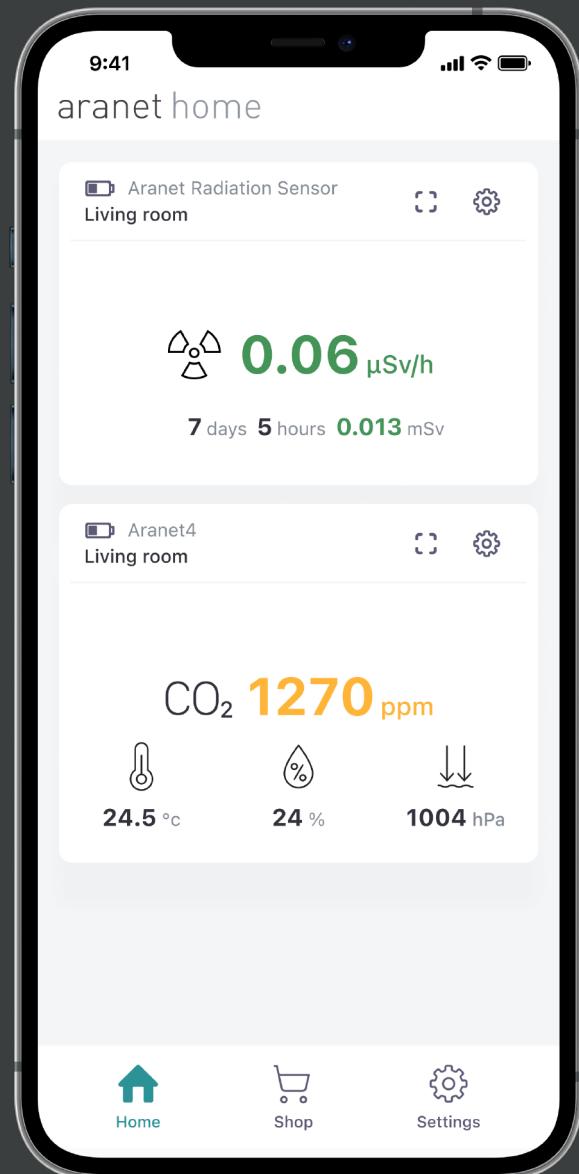
Pair the sensor to Aranet Home app

1. To initiate pairing, navigate to the Settings in Aranet Home app

aranet home

Aranet4
Living room

CO_2 **1270** ppm

74.5 °F   **24** %   **1004** hPa

Home   Shop   Settings

2. select "PAIR NEW DEVICE."

APP SETTINGS

Language	English ⌄
Temperature unit	Celsius ⌄
Pressure unit	hPa ⌄
Radiation unit	Sv ⌄
Data format	dd/mm/yyyy ⌄
Fullscreen mode	Off ⌄
Keep screen on	
Background data read	On ⌄
About Aranet Home	>
Rate us	>
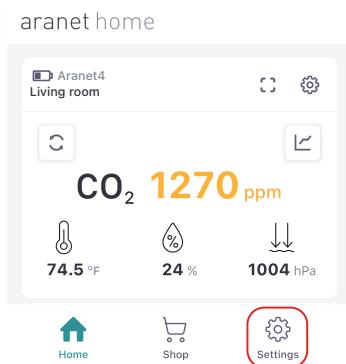
+ PAIR NEW DEVICE

3. Find your sensor in the list—the sensor device number is shown on the sensor screen. Click "PAIR" and follow the pairing procedure.

ARANET DEVICES

New devices found

Aranet Radiation 27CB2   + PAIR
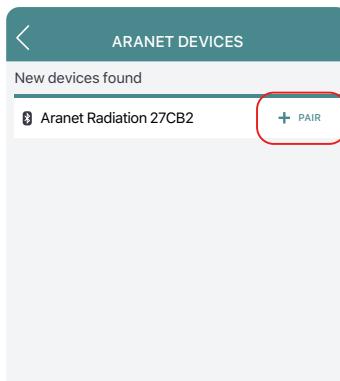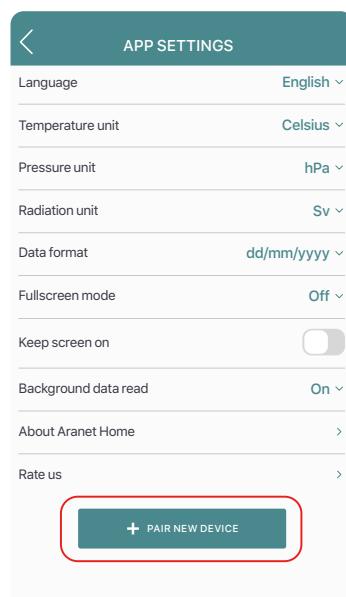
4. Once pairing is complete, your sensor is ready to use.

aranet home

Radiation
Living room

0.06 µSv/h

7 days **5** hours **0.013** mSv

Aranet4
Living room

CO_2 **1270** ppm

74.5 °F   **24** %   **1004** hPa
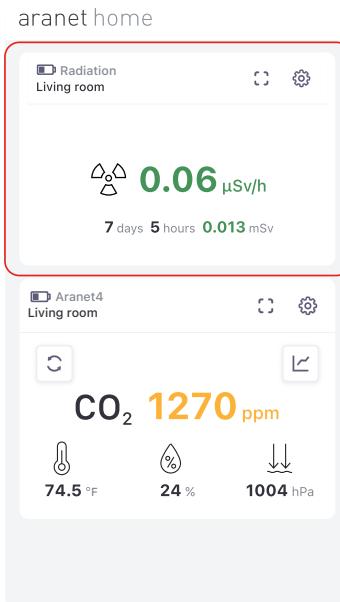
Check out our other products:

Aranet Radon Plus

Measure important air quality parameters: Radon levels, temperature, relative humidity and atmospheric pressure.
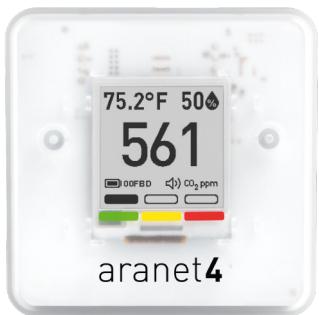
Buy now

Aranet4 HOME

Perfect companion for indoor environments. Aranet4 monitors CO_2 concentration, temperature, relative humidity, and atmospheric pressure.

Buy now

Aranet2 HOME

A simple solution for monitoring indoor temperature and relative humidity.

Buy now

aranet.com/home/aranet-home-app