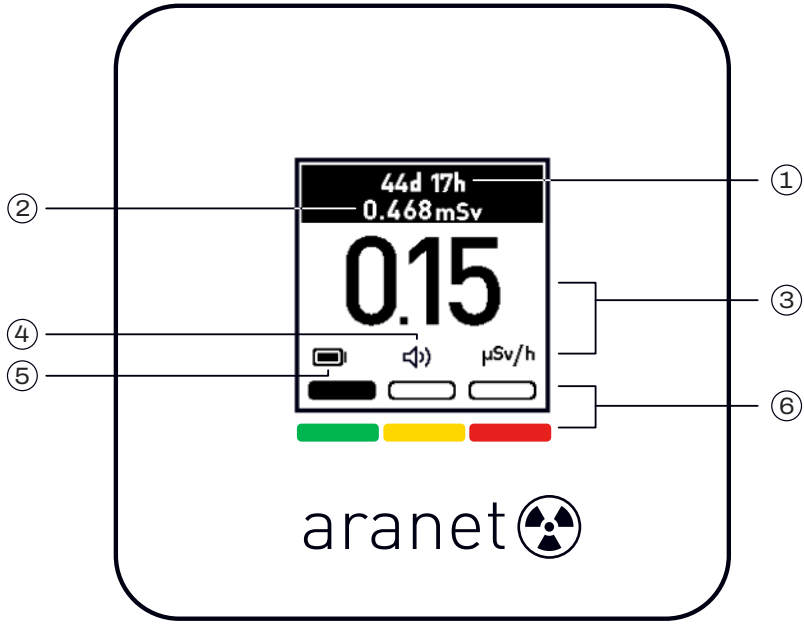
aranet

Radiation sensor
Quick start guide

Product number:
TDSNUCH1



1. Integration time
2. Total dose
3. Dose rate
4. Buzzer status
5. Battery level
6. 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 marked “Cal”. 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 **[Link]**.
[2]Radiation Thermometer, CDC – Centers for Disease Control and Prevention, accessed 23 October 2023 **[Link]**.
[3]Limit values in radiation protection, The Federal Office for Radiation Protection (BfS) of Germany, accessed 23 October 2023 **[Link]**.
[4]Health Effects of Ionising Radiation on People, National Environment Agency of Singapore, accessed 23 October 2023 **[Link]**.

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. When the dose rate numbers change from outlined to filled, you can begin your measurement journey.

Please wait

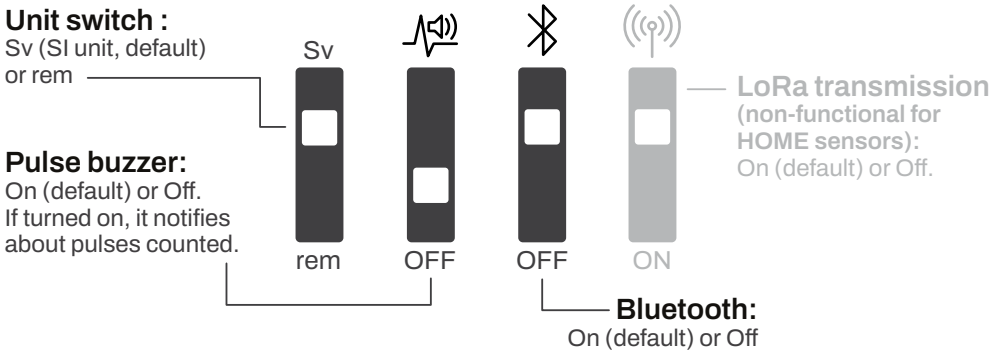
Ready to use

⚠ 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.



For more technical information see Aranet Radiation sensor data sheet.

See more

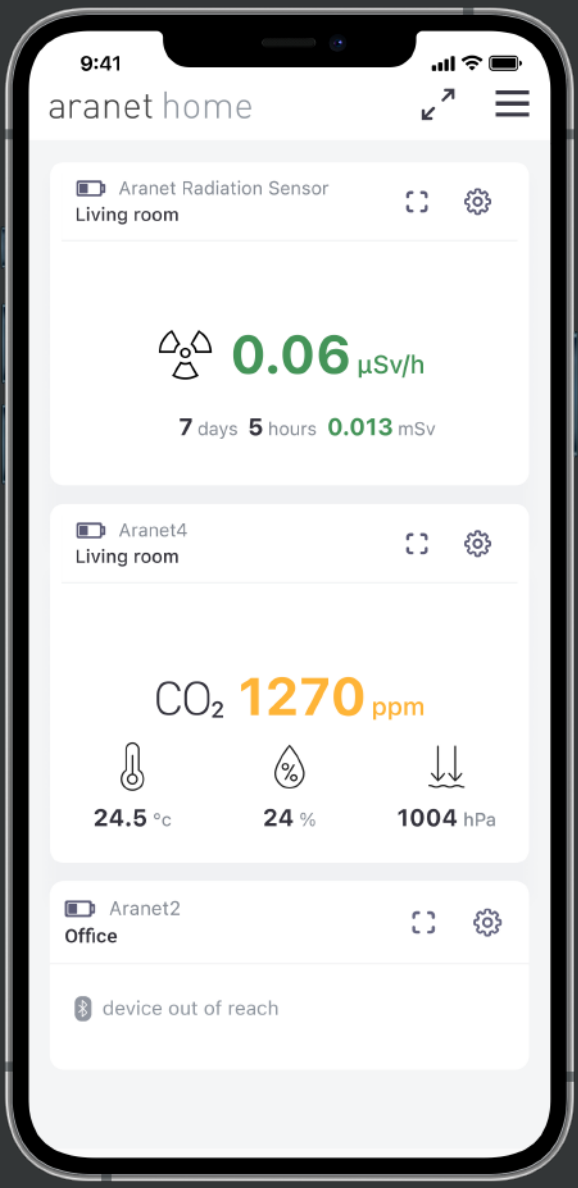
Aranet Home app

Scan to download the app or click the button

Go to App

Available on the Google Play

Download on the App Store



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