

Getting started

1. Connect the 12 volt power supply or a power bank via the step-up USB cable to your RadonEye.

The device calibrates automatically and then starts measuring Radon.



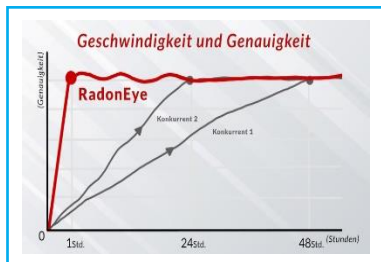
2. The current reading is updated on the display every 10 minutes.

After one hour, the RadonEye displays a reliable value of the radon activity concentration.

i The longer the measurement, the more meaningful the reading.



3. Comparable devices from other manufacturers require between 24 and 48 hours for the first meaningful value of the radon concentration.



4. If a concentration of 148 Bq/m³ is exceeded during the measurement, the RadonEye warns acoustically and via the red lamp under the display. You can set this alarm threshold individually in the app.



Display Indications

The following data and values are shown alternately under the current measured value in the display.

RE..: Serial number

STS Ready: After calibration, the RadonEye starts a self-test (approx. 2 minutes). Within the next 60 minutes the error rate is > +/- 10%.

STS Normal: Normal operation after approx. 62 minutes and Radon detection with the high data reliability of < +/- 10%.

M: Previous day Ø value (update every 24 hours)

L: Monthly Ø value (update every 30 days)

T: Duration of the current measurement in days, hours, minutes and seconds

C: X / Y: counts per 10 minutes

X: Number of detected counts in the preceding 10-min interval.

Y: Number of counts detected in the current 10-min interval.

Comparison of X and Y to quickly know if, for example, a ventilation action was sufficient.

Peak: Peak value of the entire measuring time so far

Product details

- Sensor: pulsed ionisation chamber
- Measuring intervals: 10 min, 1h, 6h
- Sensitivity: 1.35 cpm / 100 Bq/m³
- Working range: 10-40°C, humidity < 90
- Measuring range: 1 ~ 3,700 Bq/m³
- Measurement deviation: < ±10 % (corresponds to approx. ±15 Bq/m³)
- Power supply: DC 12 volt, 65 mA (12 volt DC adapter)
- Connectivity: Bluetooth LE (Android/ iOS)
- Data storage: max. 1 year (at 1-hour interval)

Smartphone app RadonEye from FTLab

System notes and download



Android 4.3 or higher



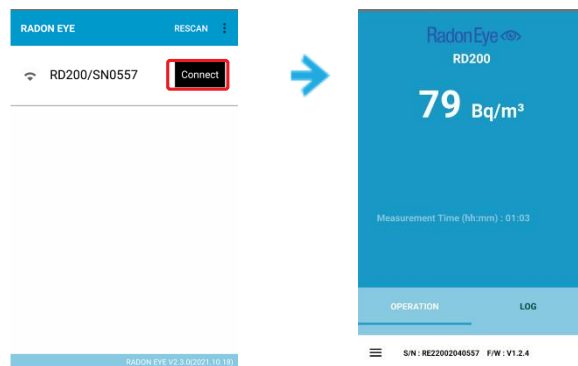
iOS 8.0 or higher



Bluetooth 4.0 or higher

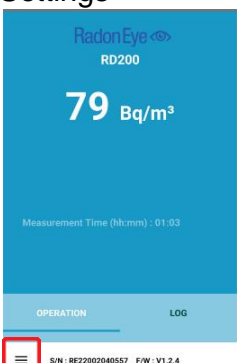
Device pairing

Activate Bluetooth on the smartphone and connect the corresponding RadonEye with "Connect".

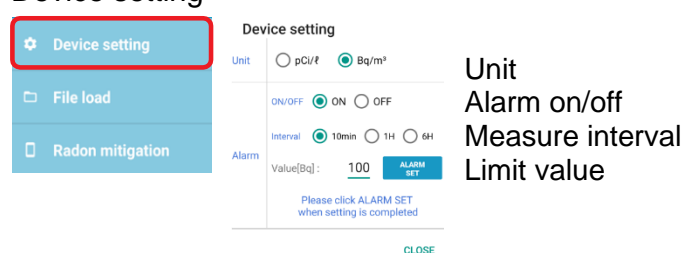


Menu navigation

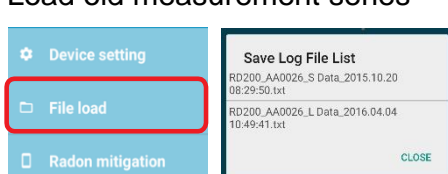
Settings



Device setting



Load old measurement series

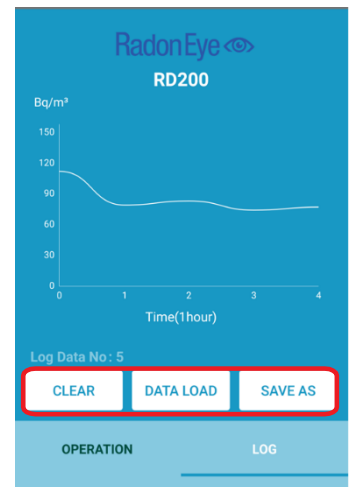


Data Log

Clear empties the RadonEye's data memory including the data from the app (externally stored measurement series are not affected).

The RadonEye then starts a new series of measurements.

Data Load retrieves the values saved in the Radon Eyes internal data memory and displays them as a graph.



Save as

Save an share saves the current measurement as a .txt file on the smartphone and then allows it to be sent via installed apps such as mail, cloud, messenger, etc. **Save as** saves the current measurement as a .txt file on the smartphone

File location

iOS: iTunes - App - File-sharing - RadonEye

Android: File Manager - Downloads

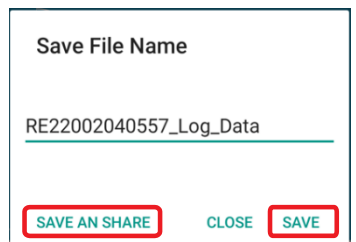
i Saving does not interrupt the current measurement.

Measuring tip

With the RadonEye you can easily measure several rooms in a row. Start a separate measurement for each room and name it according to the room when saving the measurement series.

Assign date and time

i Make a note of the date and time at the beginning of a measurement so that you can assign them to your measured values after exporting them, for example in Excel with auto complete.



Measure radon successfully

Background information on the topic of radon, detailed tips on radon measurement and interpretation of the measurement results can be found in the RadonTec Radon Helpdesk:



What is radon-222?

- radioactive noble gas
- enters buildings from the ground
- accumulates in closed rooms
- Invisible, odourless and tasteless

Health hazards

- Absorption into the lungs via the air we breathe
- Radioactive decay damages lung tissue
- Medium/heavy radon exposure over several years increases the risk of lung cancer

Radon in Bq/m³

- Becquerel per cubic metre of air
- 150 Bq/m³ corresponds to 150 radioactive decays of radon within one second in one cubic metre of air

Radon reference values

- Radiation Protection Act: 300 Bq/m³ annual average
- WHO: below 100 Bq/m³ annual average
- There is no limit value.

When is a radon measurement recommended?

Basically, three measurement periods are suitable in order to have meaningful values at the end of the radon measurement:

- **Heating period between 15 October and 15 April:** experience shows that radon levels are highest in winter, as a higher radon concentration penetrates the building due to the chimney effect of heated rooms and at the same time there is less and shorter ventilation.
- **Transitional periods from 1 September to 30 November and 1 March to 1 May:** best suited to determine the annual mean value. This shows the average radon exposure over a year. Necessary measures can be read off very easily from this.

Where should the RadonEye be placed?

- Rooms where you spend the longest and most time: **Bedroom, home office**
- Places where children stay: **Children's rooms, playrooms, hobby cellars and living areas.**
- Basement rooms: **hobby cellars, offices and workshops**

During the measurement

- Meaningful measurement results: the RadonEye must be in the same place for at least 24 hours.
- Placement: at least at knee height, preferably at "breathing height".
- Distance to walls, windows, ventilation systems: 20 cm
- Avoid vibration during measurement
- Do not cover the radon meter during measurement
- Bluetooth range: up to 10 m

i We recommend measuring each relevant room between 5 and 7 days.

The measurement result

Safe radon levels < 100 Bq/m³

Radon exposure is low. Your ventilation behaviour already prevents high radon concentrations from accumulating in rooms. Keep an eye on the radon levels to be able to react in case of changes.

Elevated radon levels 101 - 300 Bq/m³

The radon levels are slightly elevated. Mechanical or automated radon ventilation can reduce radon levels to the range recommended by the WHO.

Highly elevated radon levels > 300 Bq/m³

You are exposed to a strongly increased radon load. A building diagnosis to analyse the radon entry pathways and a tailor-made remediation concept permanently reduce the radon levels.

First aid for elevated radon levels

- **Living rooms:** regular manual ventilation
- **Cellar:** close/seal connecting doors to the living area to reduce dispersion paths. Tilting a window ensures pressure equalisation between the dwelling and the environment and makes it more difficult for radon to penetrate.
- In case of **(strongly) elevated radon levels:** determine the radon entry paths by means of a building diagnosis in order to avoid unnecessary costs due to large-scale remediation measures.

Can the radon concentration rise to infinity?

No, due to the half-life of radon, which is 3.8 days, the radon concentration in closed rooms settles at a certain level.

Does radon also occur in water (e.g. groundwater)?

Yes, radon can also dissolve in water. If water containing radon is drunk, there is generally no danger to the body. Radon is mainly problematic when it decays in the lungs.

Ihre RadonEye
Anleitung in Deutsch

Votre guide de
démarrage rapide
RadonEye en français

Su guía de inicio
rápido de RadonEye
en español

Guida rapida di
RadonEye in italiano

Twoja RadonEye
Skrócona instrukcja
obsługi w języku
polskim

Din RadonEye
Snabbstartguide på
engelska

