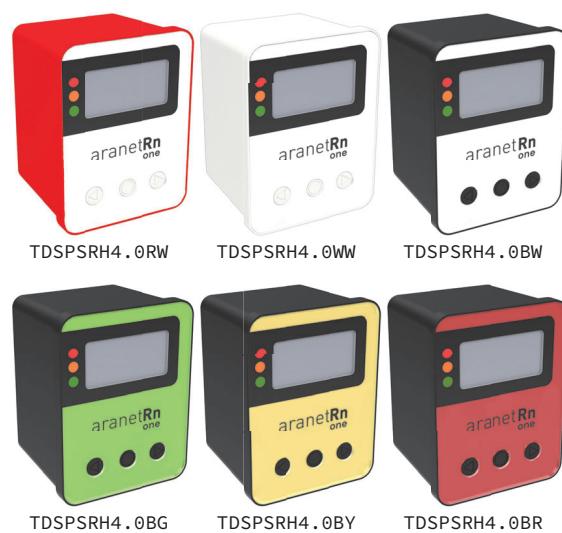


# Aranet Radon One Sensor HOME

Provides real-time measurements of radon gas concentration. With its portability and extended multi-year battery life, this device ensures convenience and reliability in continuous indoor air quality monitoring. This sensor, belonging to the HOME sensor series, is intended to be used together with the *Aranet Home* mobile application for extended data browsing capabilities.



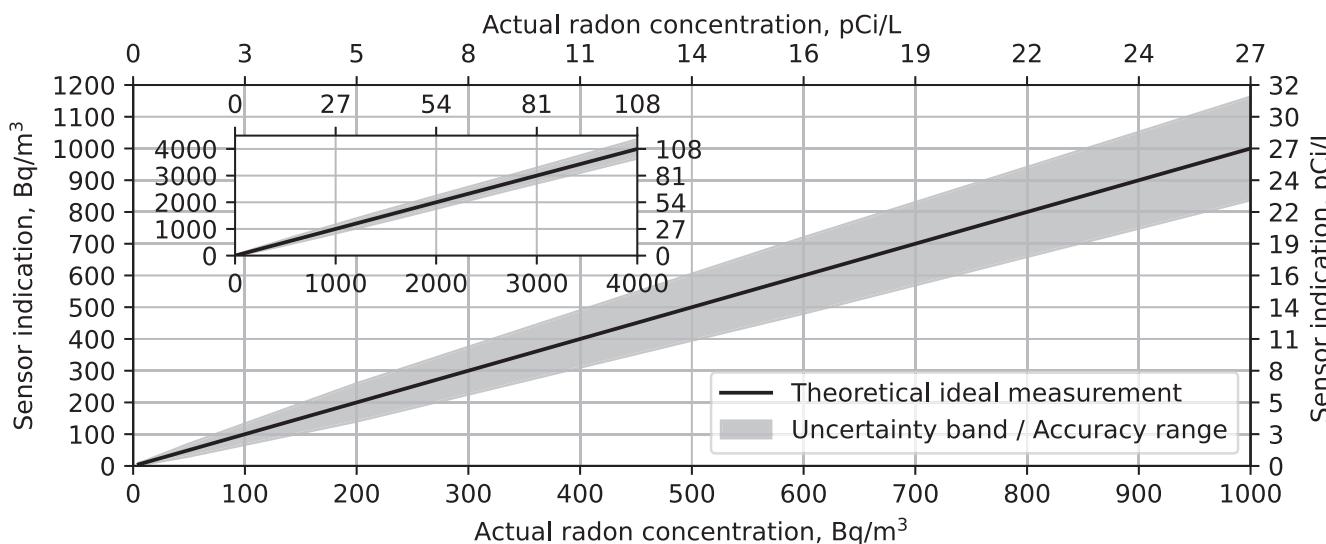
## Product numbers

Product number	Color of rear body and buttons	Color of front panel (fascia)
TDSPSRH4.0RW	Red	White
TDSPSRH4.0WW	White	White
TDSPSRH4.0BW	Black	White
TDSPSRH4.0BG	Black	Green
TDSPSRH4.0BY	Black	Yellow
TDSPSRH4.0BR	Black	Red

## Radon concentration measurement performance

Detector type	$\alpha$ -decay event detection using ionization chamber	
Range	0–4000 Bq/m <sup>3</sup>	0–108.10 pCi/L
Resolution	1 Bq/m <sup>3</sup>	0.02 pCi/L
First reliable measurement in	1 h	(See notes below)
Accuracy of 24 h, 7 d, 30 d averages	$\pm 8\%$	
Accuracy of current concentration	Dependent on radon concentration	(See graph below)

- The accuracy figure provided is applicable after the device has been operational for a minimum of one hour. Prior to this duration, precision may be compromised due to the limited averaging window for the  $\alpha$ -decay event count.
- The device exhibits sensitivity to static electricity. Exercise caution when handling it, as activities like rubbing may temporarily introduce false measurements of increased radon concentration.
- The calibrated measurement range is outlined above. However, the device has the capability to display radon concentration values up to 6500 Bq/m<sup>3</sup> (175.70 pCi/L), although the listed accuracy is not guaranteed in such instances.



## General specifications

Ingress protection rating	IP20	
Operating temperature range	0–50 °C	32–122 °F
Operating relative humidity range	0–85 % (non-condensing)	
Dimensions	105×80×71 mm	4.13×3.15×2.80 in
Weight (incl. batteries)	220 g	7.8 oz
Enclosure material	Polycarbonate	
Packaging includes	2 pcs AA alkaline batteries	

## Bluetooth transmit power

Normal range (Default)	-12 dBm
Extended range	4 dBm

- Bluetooth transmitter power can be adjusted through the settings in the *Aranet Home* mobile application. Enable the extended range feature only if the sensor experiences poor connectivity with the mobile application during typical use, such as in large rooms or through walls. Note that enabling this feature will reduce the expected battery lifetime listed below.
- Bluetooth is utilized to enable the functionality of the *Aranet Home* mobile application. When transferring data to *Aranet Home*, device memory provides **35 days historic data availability**.

## Battery lifetime

	Bluetooth Off	Bluetooth On
Alkaline batteries	5.7 years	1.9 years
Lithium batteries	8.1 years	2.5 years

- Data provided for a device with an active Bluetooth connection considers it being paired with the *Aranet Home* mobile application and engaging in regular data transfer with the mobile phone or tablet.
- Battery lifetime data has been obtained by mathematical extrapolation and is provided for descriptive purposes only and is not intended to make or imply any guarantee or warranty.
- Battery lifetime tests and calculations performed assuming device is at 20 °C (68 °F) and using *Fujitsu Premium LR6G07* (alkaline) and *Energizer Ultimate Lithium L91* (lithium) AA batteries as reference.
- The operating temperature range may vary based on the battery type used. Generally, the range for alkaline batteries is between -20–50 °C (-4–122 °F), whereas for lithium batteries, it is -40–60 °C (-40–140 °F).

## Important notes

- Do not leave the device in direct sunlight! Exposure to intense sunlight can adversely affect the performance and longevity of the e-ink display, potentially leading to issues like reduced contrast, diminished readability, or even permanent damage to the display pixels or electronic components. Moreover, sun exposure can also adversely impact accuracy of sensor readings.

## Compliance information

 Conformité Européenne

 Federal Communications Commission (USA)

 Innovation, Science and Economic Development Canada

## 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 device.
- Increase the separation between the equipment and receiver.
- Connect the equipment to an outlet on a circuit different from the one the receiver is connected to.
- Consult the dealer or an experienced radio/TV technician for help.

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

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## FCC Radiation Exposure Statement

- This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
- This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.
- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- The device does not contain serviceable parts. Warranty will not be applicable if device has been opened or its warranty seals are damaged.
- The information presented in this guide is the property of SAF Tehnika, JSC. No part of this document may be reproduced or transmitted without proper permission from SAF Tehnika, JSC. The specifications or information contained in this document are subject to change without notice due to continuing introduction of design improvements. If there is any conflict between this document and compliance statements, the latter will supersede this document. SAF Tehnika, JSC has no liability for typing errors in this document or damages of any kind that result from the use of this document. To get up to date information about accessories and their availability, please contact sales representative.

## Innovation, Science and Economic Development Canada (ISED) Statement

- Caution: Exposure to Radio Frequency Radiation. To comply with the Canadian RF exposure compliance requirements, this device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.
- To comply with RSS 102 RF exposure compliance requirements, this equipment should be installed and operated, keeping the radiator at least 20 cm or more away from the person's body.
- 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.

## Déclaration d'Innovation, Sciences et Développement économique Canada (ISDE)

- Attention: exposition au rayonnement radiofréquence. Pour se conformer aux exigences de conformité RF canadienne l'exposition, cet appareil et son antenne ne doivent pas être co-localisés ou fonctionnant en conjonction avec une autre antenne ou transmetteur.
- Pour se conformer aux exigences de conformité CNR 102 RF exposition, cet équipement doit être installé et utilisé en maintenant le radiateur à au moins 20 cm ou plus du corps de la personne.
- 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.