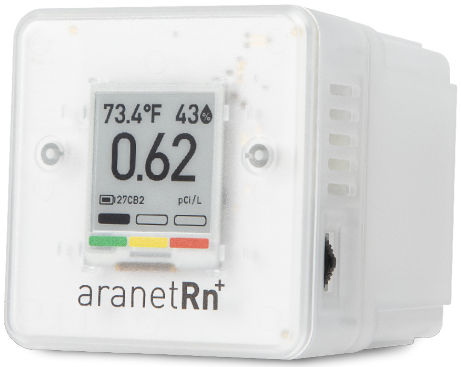
Radon Plus Sensor HOME



Provides real-time measurements of radon gas concentration, temperature, and relative humidity. 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.

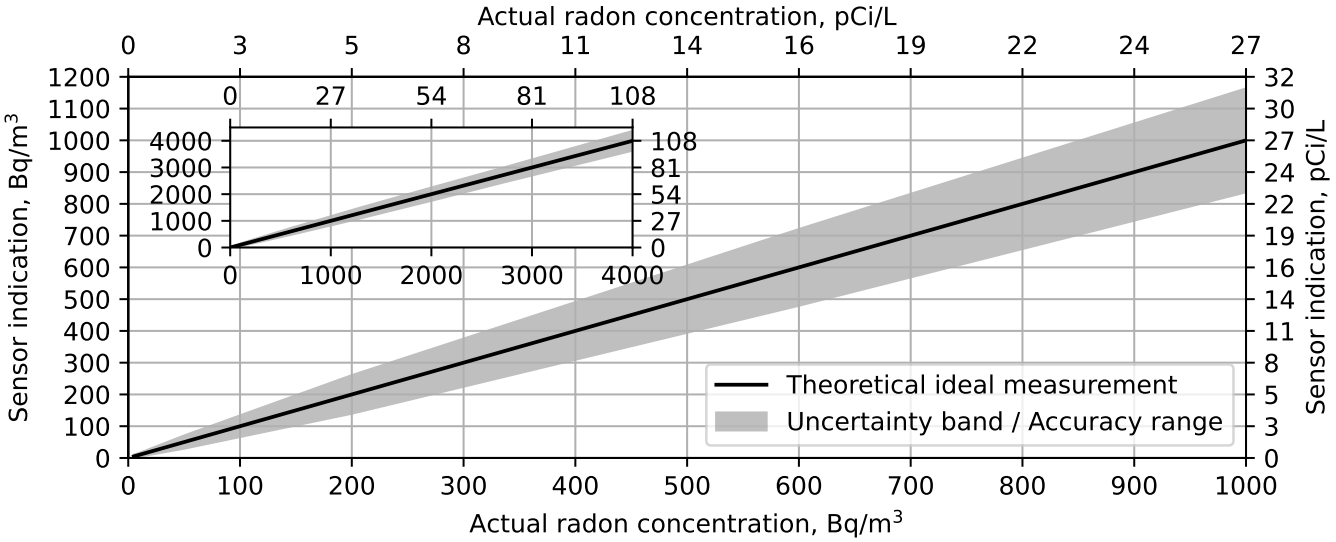
Product numbers

Globally	TDSPSRH2

Sensor performance

Radon concentration

Detector type	α-decay event detection using ionization chamber	
Range	0–4000 Bq/m^3	0–108.10 pCi/L
Resolution	1 Bq/m^3	0.02 pCi/L
First reliable measurement in	1 h	(See notes below)
Accuracy of 24 h, 7 d, 30 d averages	±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 α-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^3 (175.70 pCi/L), although the listed accuracy is not guaranteed in such instances.

Temperature

Range	0–50 °C	-32–122 °F
Resolution	0.1 °C	0.1 °F
Accuracy	±0.3 °C	±0.5 °F
Long term drift	0.03 °C/year	0.05 °F/year

Relative humidity

Range	0–99 %
Resolution	1 %
Accuracy	±3 %
Long term drift	0.5 %/year

Atmospheric pressure

Range	600–1100 hPa
Resolution	1 hPa
Accuracy	+3 hPa / -2 hPa
Long term drift	1 hPa/year

- Atmospheric pressure measurements are exclusively accessible through the *Aranet Home* mobile application and are not displayed on the device screen.
- Device measures absolute atmospheric pressure, i.e., readings are not compensated for an elevation above the sea level.

General specifications

Ingress protection rating	IP20	
Operating temperature range	0–50 °C	32–122 °F
Operating relative humidity range	0–85 %	
Dimensions	71×71×77 mm	2.80×2.80×3.03 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**.

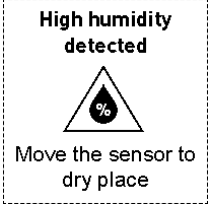
Battery lifetime

Battery type	Bluetooth Off	Bluetooth On
Alkaline	7.3 years	4.2 years
Lithium	10.7 years	5.8 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.
- Avoid placing the device in a high humidity environment outside its specified operating range. Doing so will prevent the device from accurately detecting radon presence. In such conditions, the sensor will recognize a fault and display a warning screen. If you encounter this warning, move the sensor to a location with lower humidity. It may take up to an hour for the device to clear the fault condition and resume normal operation.



Compliance information

CE Conformité Européenne

FC Federal Communications Commission (USA)

IC Innovation, Science and Economic Development Canada