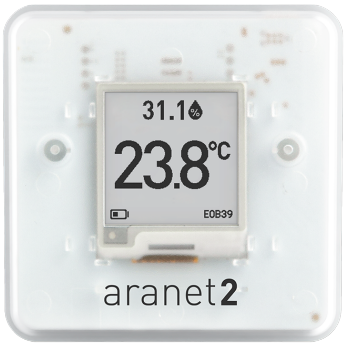
Aranet2 HOME

Wireless, portable device for measuring air quality. Measures temperature and relative humidity. 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	TDSPRHH2.002

Sensor performance

General notes

- 95 % of the sensors perform within the specified accuracy limits at the time of purchase, assuming they are in an equilibrium state. For evaluation of the total measurement error, long-term drift has to be taken into account.
- Measurement time constant τ is determined at 1 m/s airflow. This constant refers to the time it takes for the sensor reading to reach 63 % of a new steady-state value in response to a step change in the environment. It essentially represents the speed at which the sensor adjusts to changes in the measured quantity.

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
Time constant τ	10 min	

Relative humidity

Range	0–99 %
Resolution	0.1 %
Accuracy	±3 %
Long term drift	0.5 %/year
Time constant τ	To be defined

General specifications

Ingress protection rating	IP20	
Operating temperature range	0–50 °C	32–122 °F
Operating relative humidity range	0–99 %	
Dimensions	71×71×24 mm	2.80×2.80×0.94 in
Weight (incl. batteries)	100 g	3.5 oz
Enclosure material	Polycarbonate	
Power supply	2 pcs AA batteries	
Packaging includes	2 pcs AA alkaline batteries, configuration pin	

Bluetooth parameters

Line of sight range	10 m	33 ft
Transmitter power	4 dBm or -12 dBm	
Data transmission interval	1, 2, 5 or 10 min	

Battery lifetime

	Alkaline batteries		Lithium batteries	
Measurement interval	Bluetooth Off	Bluetooth On	Bluetooth Off	Bluetooth On
1 min	1.3 years	1.0 years	1.7 years	1.3 years
2 min	2.4 years	1.5 years	3.2 years	2.0 years
5 min	4.9 years	2.2 years	6.9 years	2.9 years
10 min	7.7 years	2.6 years	>10 years	3.5 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).

Measurement data memory specifications

Measurement interval	Historic data availability
1 min	8 days
2 min	16 days
5 min	40 days
10 min	80 days

- The device provides access to historical data through the *Aranet Home* mobile application. For users seeking high-resolution measurement data consistently, shorter measurement interval is recommended, as frequent interval changes can impact historical data resolution.
- When transitioning to a longer measurement interval (e.g., from 1 min to 10 min), the firmware computes average values from subsets to represent the longer sampling (for instance, a 10 min average derived from ten 1 min samples).
- Likewise, when shifting to a shorter interval (e.g., from 10 min to 1 min), the memory stores additional samples mirroring the longer interval's data (such as ten 1 min samples with identical values as the original 10 min sample).
- The provided information applies to a device with the latest firmware installed. We strongly advise upgrading the firmware using the *Aranet Home* mobile application as soon as an update becomes available.

Important notes

- Device is qualified to work properly within ambient clean air. Qualification for use in harsh environment is the duty of the user of the sensor. Exposure to volatile organic compounds, acids or bases, etching substances such as H_2O_2, NH_3, shall be avoided.
- 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

CE Conformité Européenne

FC Federal Communications Commission (USA)

IC Innovation, Science and Economic Development Canada