PRODUCT DATASHEET

RB Technik

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Cloud Air Quality

Features:

- Indoor Air Quality monitor compatible with Casambi ecosystem.
- Measure Ambient temperature, Relative Humidity, IAQ (Index of Air Quality), bVOCs (Breath volatile organic compounds)
- Data are visible on Casambi App and stored in Casambi Cloud
- Cloud stored data can be retrieved with the included app that allow display, charting, analyzing of all parameters.
- No tools installation.
- Small dimensions allow to be easily installed and hidden.
- Alarm setting from Casambi App.
- Normally open contact is provided to control HVAC / Air Cleaner systems
- Ambient temperature offset settable from Casambi App

Description

Cloud Air Quality Basic is a Casambi ready Air Quality sensor station that allow to measure, report and store Air Quality data. It consists in a several sensors that allow to give complete measurement of indoor location Air Quality.
The device has to be paired to a Casambi network and it is visible in Sensor section.

Acquired data are available locally on sensor page Casambi App. The device need a reliable Internet connection and an active Casambi Gateway to transfer data in to the Cloud.

Alarm levels are settable from Casambi App on following parameters:

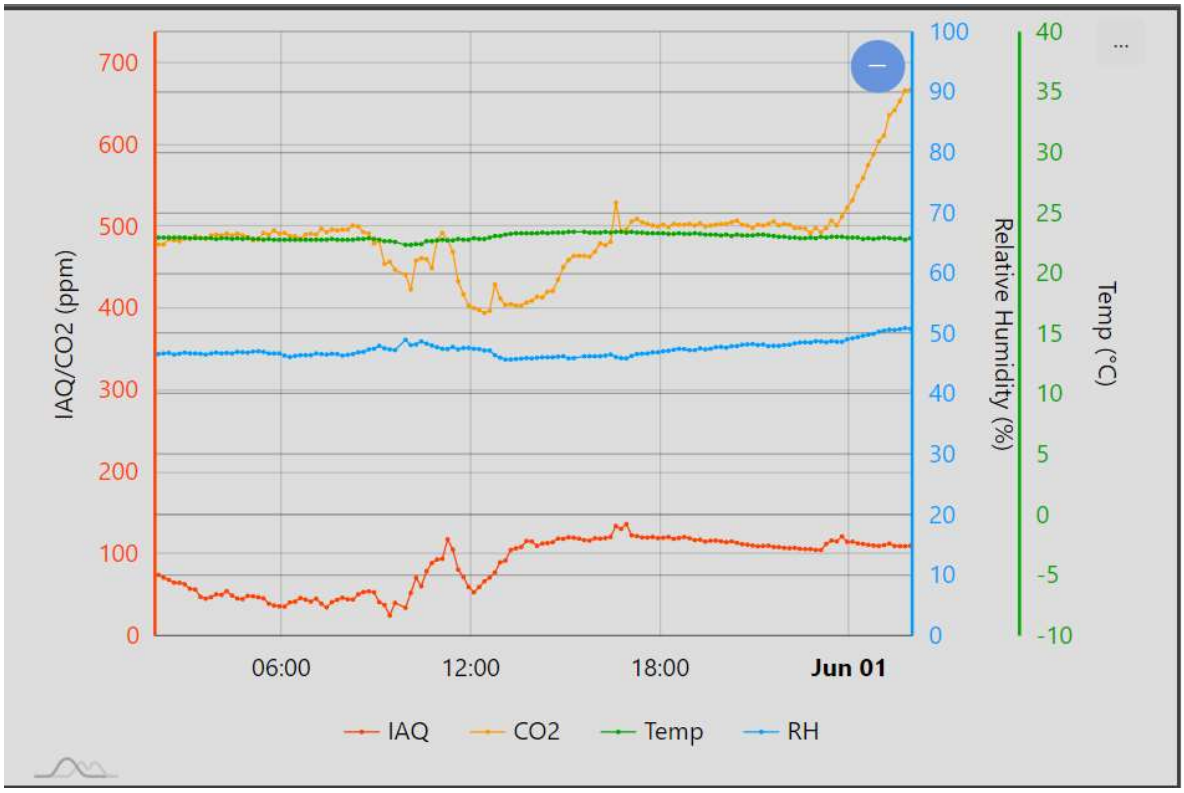
Index of Air Quality

bVOC

When an alarm level is reached frontal LED start to fast blink and the provided normally open contact is closed.

Ambient temperature adjustment in the range of -5 +5 °C is available from Casambi APP to eventually compensate offset due installation environment.

The free of charge web app : https://www.rbtechnik.eu/webapp/login.php allow to establish a Cloud Casambi API Session to retrieve data from Cloud to display, chart and report air quality parameters.



Technical specification:

Air quality measured parameters:

Ambient temperature	-45 - 85 °C
Relative Humidity (RH)	10 - 95 %
Index of Air Quality (IAQ)	0 – 500
bVOC	0- 200 ppm

Input Voltage:	5 Vdc (USB power supply included)
Power consumption:	2W
Isolation:	class II
Protection grade	IP 20
Operating temperature	0° – 50°
Normally open contact	max 60V 1A
Dimensions:	140x110x35 mm

Standards: Electromagnetic compatibility (EMC) - emissions and immunity: EN 62052-11

Electrical safety: EN 61010-1, EN 50470-1 (MID), UL 61010-1

Approvals: CE

Not suitable for safety applications

Contact: info@RBTechnik.eu

Measurements accuracy:

Ambient temperature:	±1°
Relative Humidity:	±3%

Breath-VOCs

Molar Fract.	Compound	Prod. Toll.	Certified Accuracy
5ppm	Ethane	20%	5%
10ppm	Isoprene /2-Methyl-1,3 Butadiene	20%	5%
10ppm	Ethanol	20%	5%
50ppm	Acetone	20%	5%
15ppm	Carbon Dioxide	20%	2%

For more info : https://www.boschsensortec.com/media/boschsensortec/downloads/datasheets/bst-bme680-ds001.pdf

Index of Air Quality

IAQ Index	Air Quality	Impact (long-term exposure)	Suggested action
0 – 50	Excellent	Pure air; best for well-being	No measures needed
51 – 100	Good	No irritation or impact on well-being	No measures needed
101 – 150	Lightly polluted	Reduction of well-being possible	Ventilation suggested
151 – 200	Moderately polluted	More significant irritation possible	Increase ventilation with clean air
201 – 250[9]	Heavily polluted	Exposition might lead to effects like headache depending on type of VOCs	optimize ventilation
251 – 350	Severely polluted	More severe health issue possible if harmful VOC present	Contamination should be identified if level is reached even w/o presence of people; maximize ventilation & reduce attendance
> 351	Extremely polluted	Headaches, additional neurotoxic effects possible	Contamination needs to be identified; avoid presence in room and maximize ventilation

Installation

1) Caution! Electric shock hazard. Trained personnel are required for installation.
2) Connect Cloud Air Quality power supply to mains.
3) Cloud Air Quality has to be in the radio range of at least one Casambi network node.
4) Pair the device with the Casambi network active in the area.
5) An active Casambi network gateway is needed to delivery data to the cloud. Data will be available with some delay.
6) Our Cloud Air quality are designed for indoor use in public and domestic spaces (were normally the sensor will be exposed to "fresh" air at list once in 8 days (ambient unoccupied by humans)
   In this way we can rely on the sensor auto-calibration built-in algorithm .

7) Requirements for auto-calibration:
   At list weekly exposure to fresh air
   Device Continuously powered

8) Alarm normally open contact can be used to connect to HVACs / Air cleaner systems.
   Contacts max ratings : 60V 1Amp