

LifeQuality Jeweller

Smart air quality detector

Compatibility	Hubs <ul style="list-style-type: none">• Hub 2 (2G)• Hub 2 (4G)• Hub 2 Plus• Hub Hybrid (2G)• Hub Hybrid (4G) Radio signal range extenders <ul style="list-style-type: none">• ReX 2
Communication	Jeweller communication technology <p>Proprietary wireless communication technology to transmit events.</p> It features: <ul style="list-style-type: none">• Two-way communication.• Protection against spoofing.• Block encryption with a dynamic key.• Instant notifications.• Remote configuration via the Ajax apps. Learn more Frequency bands <p>866,0 – 866,5 MHz 868,0 – 868,6 MHz 868,7 – 869,2 MHz 905,0 – 926,5 MHz 915,85 – 926,5 MHz 921,0 – 922,0 MHz</p> <p>Depends on the sales region.</p> Maximum effective radiated power (ERP) up to 20 mW <p>Automatic power regulation to reduce power consumption and radio interference.</p>

Radio signal modulation GFSK

Radio communication range up to 1,700 m

Between the detector and a hub/range extender in an open space.

[Calculate radio communication range](#)

Encrypted radio communication

All the data stored and transmitted are protected by block encryption with a dynamic key.

Radio frequency hopping

To prevent radio interference and jamming.

[Learn more](#)

Wings communication technology

Proprietary wireless communication technology for backup connection with the hub (or radio signal range extender).

It features:

- Two-way communication.
- Block encryption with a dynamic key.
- Re-uploading data packets in case of error during data transfer.

[Learn more](#)

Frequency bands

866,0 – 866,5 MHz

868,0 – 868,6 MHz

868,7 – 869,2 MHz

905,0 – 926,5 MHz

915,85 – 926,5 MHz

921,0 – 922,0 MHz

Depends on the sales region.

	<p>Radio communication range up to 1,700 m Between the detector and a hub/range extender in an open space.</p> <p>Calculate radio communication range</p> <p>Encrypted radio communication All the data stored and transmitted are protected by block encryption with a dynamic key.</p> <p>Radio frequency hopping To prevent radio interference and jamming.</p> <p>Learn more</p>
<p>Sensitive elements</p>	<ul style="list-style-type: none"> ● Temperature and humidity sensor ● CO₂ (carbon dioxide) sensor
<p>Temperature measurement</p>	<p>Sensitive element Digital temperature and humidity sensor Values in the Ajax apps are updated depending on the frequency of the "hub–detector" polling interval, but not less than once per minute.</p> <p>Measurement range from 0°C to +50°C The value is available in the device States in the Ajax app.</p> <p>Measurement accuracy ±0,2°C</p> <p>Measurement pitch 0,1°C The minimum temperature change value recorded in the Ajax apps.</p>
<p>Humidity measurement</p>	<p>Sensitive element Digital temperature and humidity sensor Values in the Ajax apps are updated depending on the frequency of the "hub–detector" polling interval, but not less than once per minute.</p> <p>Measurement range from 0% to 100% The value is available in the device States in the Ajax app.</p> <p>Measurement range ±1,8%</p> <p>Measurement pitch 1% The minimum humidity change value recorded in the Ajax app.</p>

<p>Carbon dioxide (CO₂) concentration measurement</p>	<p>Sensitive element digital carbon dioxide sensor Values in the Ajax apps are updated depending on the frequency of the "hub–detector" polling interval, but not less than once per minute.</p> <p>Measurement range from 400 to 5000 ppm</p> <p>The value is available in the device States in the Ajax app.</p> <p>Air quality assessment levels</p> <ul style="list-style-type: none"> ● Normal air: up to 1000 ppm; ● Moderately polluted air: from 1000 to 1400 ppm; ● Polluted air: from 1400 to 2000 ppm; ● Critically polluted air: more than 2000 ppm. <p>Effects on well-being: from 1000 to 2500 ppm– lethargy; from 2500 to 5000 ppm–possible adverse health effects; 5000 ppm and above–the maximum permissible concentration during an 8-hour working day.</p> <p>Measurement accuracy ±30 ppm or ±3%</p> <p>Measurement pitch 1 ppm</p> <p>The minimum value of the change in carbon dioxide concentration recorded in the Ajax app.</p>
<p>Additional features</p>	<p>Charts of temperature, humidity, and carbon dioxide concentration Available in the Ajax apps. The data is updated in real time. Measurements are stored for up to 2 years. Discrete value: 1 minute.</p> <p>LED indication</p> <ul style="list-style-type: none"> ● Green: Normal air ● Yellow: Slightly polluted air ● Red: Polluted air ● Purple: Critically polluted air <p>The LED indicator on the device enclosure lights up in the event of a critical change in air quality. The user can also turn on the indication by touching the touch sensitive button on the front panel of the detector.</p>

	<p>Automatic calibration once every 1–14 days The detector selects a calibration interval depending on the circumstances and automatically calibrates the carbon dioxide sensor. In normal conditions (ventilated room), manual calibration is not required. The digital humidity and temperature sensor does not require additional calibration.</p> <p>Manual calibration is run in the Ajax apps. Suitable for unventilated rooms. We recommend calibrating the detector once every 2-3 weeks in such rooms.</p> <p>Scenarios reactions to changes in temperature, humidity, and carbon dioxide concentration. For example, turning on plenum ventilation if the air quality deteriorates.</p> <p>Learn more</p> <p>Backup memory up to 3 days If the detector loses communication with the hub (or radio signal range extender), it stores all measured values. After the connection is restored, all values are sent to the Ajax app.</p>
<p>Anti-sabotage protection</p>	<p>Accelerometer Notifies on attempts to tear off the detector from a surface, remove it from the mounting panel, or move the detector if it is placed on a table or shelf.</p> <p>Protection against spoofing device authentication</p> <p>Communication loss detection within 36 seconds The detection time depends on the Jeweller or Jeweller/Fibra settings.</p> <p>Learn more</p>
<p>Power supply</p>	<p>2 × CR123A battery Up to 3 years of autonomous operation.</p>
<p>Enclosure</p>	<p>Dimensions 77 × 77 × 34,5 mm</p> <p>Weight 127 g</p> <p>Operating temperature range from 0°C to +50°C</p>

	<p>Operating humidity up to 85%</p> <p>Protection class IP50</p>
Colours	<ul style="list-style-type: none"> • Black • White
Complete set	<p>LifeQuality Jeweller SmartBracket mounting panel 2 × CR123A battery (pre-installed) Installation kit Quick Start Guide</p>
Additional information	<p>Compliance with standards Learn more</p> <p>Service life 10 years</p> <p>Warranty 24 months Learn more</p>