

## SENSE, YOUR INDOOR AIR QUALITY MONITOR

- Renson Sense measures indoor air quality.
- The device displays when air quality is poor and when something needs to be done about it.
- Sense is an objective tool that indicates how healthy or unhealthy the room you're in is.
- It provides illuminated colour-coded feedback along the rim in three different colours: light blue [good], orange [moderate], and red [poor].
- As soon as Sense detects changes in the comfort index levels, it automatically illuminates to match those changes.
- In addition, an icon or icons always displays/display to let you know what the polluting factor is.
- The continuous measurement of air quality can be viewed live with the app 'SENSE'. Historical data can be consulted and exported via the professional portal: Renson Dashboard. The data will be collected up to one year.
- Installation & configuration: via mobile application 'Sense' and/or Renson Link [desktop application for professional users].
- The device does not show measured values on the display itself.



## SCOPE OF APPLICATION

SENSE is perfect for installation in indoor spaces, such as the living room, entrance hall, office, bedroom, playroom or bathroom, kitchen, laundry room, and garage.

This device is also a great option for offices and schools.

SENSE can be left free-standing or be mounted against the wall, between waist and eye level. However, the cable supplied must always be mounted correctly.

This device needs to be used indoors in a dry location and do not place it close to doors or windows. Avoid liquid contact with Sense.

## PRIMARY FEATURES

- Objective measurement device for monitoring air quality, with integrated sensors active 24 hours a day
- Sensors: relative humidity, temperature, VOC [Volatile Organic Compounds] – odour, CO<sub>2</sub>, light and sound
- Direct feedback of the results
- Real-time situation is accessible via the app

## RENSON DASHBOARD FOR PROFESSIONALS

The Renson Dashboard gives a clear overview of the data of all devices. The air quality in the home, school, office or workplace can be monitored in a user-friendly way.

- The Renson Dashboard includes the possibility to monitor the data of all sensors.
- The Renson Dashboard shows the history of all these sensors and gives you the possibility to export the data via chosen time intervals.
- Historical data can be consulted up to one year back.

## ARTICLE CODE

Article code	Name	Primary content	Technical specifications plug-in
<b>66000010</b>	Sense	Motor, cable, and adapter	230V - Type CEF
<b>66000024</b>	Sense UK/IRL	Motor, cable, and adapter	230V - Type G

## SPECIFICATIONS

Sensor	Range
CO <sub>2</sub>	NDIR CO <sub>2</sub> sensor Measuring range: 400-5000ppm Accuracy: +/-5% + 40ppm [in range: 400-2000ppm]
Relative humidity	Measuring range: 0-100% Accuracy: +/-2% [in range: 10-90%]
VOC	Relative, i.e. signals whenever the Volatile Organic Compounds change
Temperature	Measuring range: -10°C -> +60°C Accuracy: +/-0.2°C [in range: 0- 60°C]
Light	No range specified
Sound	29 dBA up to 120 dbA <sup>(1)</sup>

<sup>(1)</sup> Only sound volumes are measured and no sound recordings are transmitted.

The sensors activating LED feedback (blue, orange, or red) are based on the comfort index.

### So, what is the comfort index?

The RENSON COMFORT INDEX is a representation of the 'comfort' in a specific room. Based on data from various sensors, Renson determines an indication of the comfort, taking air quality, thermal comfort, and noise into account.

The Renson comfort index is by no means an absolute value, but a guideline value based on scientific analysis of factors that influence indoor comfort, such as CO<sub>2</sub>, temperature, relative humidity, VOCs, noise, etc.

If any change is detected in the quality levels, the LED rim will illuminate with the appropriate quality colour code.

This index was created internally and is the result of extensive laboratory research.

The Sense offers 3 ways to measure indoor air quality:

- Comfort index-based, incorporating all available sensors
- Selection of sensors via the mobile application
- CO<sub>2</sub>-based only, with colour-code illumination based on the following values:

**Blue** CO<sub>2</sub> concentration of less than 800 ppm.  
The air quality is good.

**Orange** CO<sub>2</sub> concentration of 800 ppm up to 1,200 ppm.  
Caution: air quality is degrading – please take appropriate action.

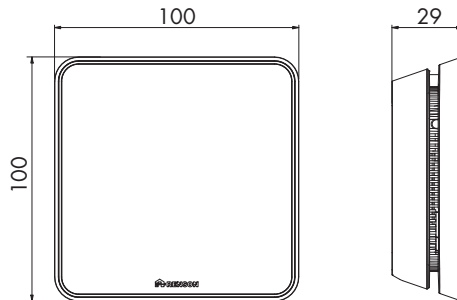
**Red** CO<sub>2</sub> concentration 1,200 ppm (legal maximum according to Belgian Royal Decree on Indoor Air Quality in Workplaces) and higher. The classroom air quality is poor. Please refresh the indoor air.

If Sense is set as a CO<sub>2</sub> monitor, the other available sensors will still measure the indoor air quality as they will be viewable in the app.

Sense is no ordinary monitor but is a device for measuring CO<sub>2</sub> concentration that meets the following requirements:

- a. continuous operation on standard electrical voltage with no settings disruption resulting from temporary power outages
- b. automatic sensor calibration
- c. has a CO<sub>2</sub> measuring function with:
  1. a measuring range of at least 400 to 5,000 ppm
  2. an operating temperature of 0-50°C
- d. ±5% reading accuracy +40 ppm [within a range of 400-2,000 ppm]
- e. measuring interval is at least 5 minutes
- f. alerts indoor air quality problems with clear indicators
- g. has at least 3 signal levels, colour coded to facilitate timely action
- h. comes standard with a communication interface [e.g. Wi-Fi, 3G, etc.] for connecting to the local network and/or internet
- i. the CO<sub>2</sub> concentration must either be readable on a clear display on the device itself or easily accessible using a mobile app on a smartphone, PC, etc.
- j. an option to store separate sensor data for at least 12 months in a digital log file and history is available via a PC app/report system
- k. preferably has additional sensors to record light, temperature, humidity or VOC values.




## TECHNICAL DRAWINGS



## TECHNICAL SPECIFICATIONS

<b>Connection voltage</b>	5V/2,4A max.
<b>Wi-Fi</b>	802.11 b/g/n @2.4GHz Link via app plus Sense confirmation button Link always possible via WPS
<b>Dimensions and weight</b> - Device - Packaging - Device weight + packaging	100 x 100 x 29 mm [LxWxH] 135 x 135 x 88 mm [LxWxH] 375 g
<b>Wi-Fi Security</b>	WPA, WPA/WPA2, WPA2, WPA2 Enterprise (limited supported by Sense). For more information on compatibility with your network, please contact <a href="mailto:service@renson.be">service@renson.be</a> .

## OTHER FEATURES

<b>Automatic help screens</b>	The app helps you navigate the initialisation process with useful tips.
<b>Software updates</b>	When Sense is online, the latest updates will always download automatically.
<b>User app</b>	Free download from Google Play [Android] & App Store [Apple]. <a href="http://www.my-llo.eu/apps/sense">http://www.my-llo.eu/apps/sense</a>    
<b>Renson Dashboard</b>	Get insights on the data of all your Sense devices. Free of charge via <a href="https://dashboard.renson.eu">https://dashboard.renson.eu</a>
<b>API solution</b>	With our 3rd party cloud API integration, Sense can be easily built into your building management system. For more info contact us at <a href="mailto:service@renson.be">service@renson.be</a>
<b>Supported browsers Renson Dashboard</b>	Google Chrome, Mozilla Firefox, Microsoft Edge (Chromium), Apple Safari on MacOS
<b>Renson Link - Desktop application for professional users</b>	Operating system: Windows 10 (from version 1607) Platform: x64, x86, Arm64 Required Disk Space: 350 Mb Minimum RAM: 8 Gb
<b>IP classification</b>	IP20 (can only be used in zone 4 of the bathroom)
<b>Privacy Policy</b>	<a href="http://www.renson.eu/privacy">www.renson.eu/privacy</a>

## EU CONFORMITY DECLARATION

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The manufacturer established in the European Union (EU)

**RENSON® Ventilation NV**  
**Industriezone 2 Vijverdam**  
**Maalbeekstraat 10**  
**8790 Waregem**  
**BELGIUM**

hereby certifies that the indoor air quality monitor for buildings listed below,

**Sense**

if applied in accordance with the respective technical conditions for this product,

complies with the provisions of the European standards, in particular:

- EN 55032 (emission):
- EN 61000-4 (immunity)
- EN 62368-1 (safety)

which may give rise to a presumption of conformity with the requirements set out in this document:

- 2011/65/EU RoHS Directive
- 2014/53/EU RED Directive (including 2014/30/EU EMC Directive and 2014/35/EU Low Voltage Directive)

The signatories are each individually authorised to compile the technical file.

**October 2020,**



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