

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 SENSE app allows you to monitor the continuous measurement of air quality in real time.



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) – CO₂ odour, light, and sound
- Direct feedback of the results
- Real-time situation is accessible via the app
- Schools: continuous measurement makes it possible to check whether the room satisfies the requirements of the Belgian Royal Decree [indoor air quality must be OK 95% of the time] For more details, see below.

ARTICLE CODE

Article code	Name	Primary content
66000010	Sense	Motor, cable, and adapter

SPECIFICATIONS

Sensor	Range
CO ₂	NDIR CO ₂ 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 ⁽¹⁾

⁽¹⁾ 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 comfort index is a general score derived from the combination of all active sensors.

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.

Sense offers two types of indoor air quality measurement:

- Comfort index-based, incorporating all available sensors
- CO₂-based only, with colour-code illumination based on the following values:

Blue

CO₂ concentration of less than 800 ppm.

The air quality is good.

Orange

CO₂ concentration of 800 ppm up to 1,200 ppm.

Caution: air quality is degrading – please take appropriate action.

Red

CO₂ concentration 1,200 ppm [legal maximum according to Belgian Royal Decree on Indoor Air Quality in Workplaces] and higher.

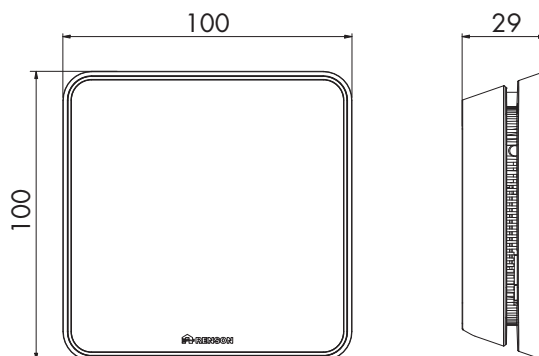
The classroom air quality is poor. Please refresh the indoor air.

If Sense is set as a CO₂ 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; it's a device that measures CO₂ concentration as per the Belgian Royal Decree on Indoor Air Quality in Workplaces (Numac: 2019201857) and 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. includes a CO₂ meter at minimum, 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 CO₂ 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. ideally includes additional sensors to record light, temperature, humidity, or VOC values should the RD Indoor Air Quality in Workplaces requirements be expanded in future

TECHNICAL DRAWINGS



TECHNICAL SPECIFICATIONS

Connection voltage	5V/2,4A max.
Wi-Fi	802.11 b/g/n @2.4GHz Link via app plus Sense confirmation button Link always possible via WPS
Dimensions and weight - Device - Packaging - Device weight + packaging	100 x 100 x 29 mm [LxWxH] 135 x 135 x 88 mm [LxWxH] 375 g
Wi-Fi Security	WPA, WPA/WPA2, WPA2, WPA2 Enterprise

OTHER FEATURES

Automatic help screens	The app helps you navigate the initialisation process with useful tips.
Software updates	When Sense is online, the latest updates will always download automatically.
User app	Free download from Google Play [Android] & App Store [Apple]. http://www.my-ljo.eu/apps/sense    
IP classification	IP20 [can only be used in zone 4 of the bathroom]
Privacy Policy	www.renson.eu/privacy

EU CONFORMITY DECLARATION

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The manufacturer established in the European Union (EU)

RENSON[®] Ventilation NV
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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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