



# Square Air for LoRaWAN

Meet the elegant LoRaWAN air quality sensor with extra everything

- Blend-in design
- Long-range (2 km)
- Simple installation & mounting
- All-in-one air quality sensor
- Location-aware
- Built-in data memory
- Indoor

The Square Air is a multi-purpose LoRaWAN multi-sensor with extensive sensing abilities – **Air Quality index, humidity, temperature, light, CO<sub>2</sub>eq, bVOC**, and more.

Its low power consumption and long battery life make it ideal for monitoring your property's climate, status, and utilization.

The sensor is also **location-aware**, making it ideal for mobile applications like trains, boats, caravans, etc., or notifying you if the sensor has been moved or removed. This functionality also simplifies installation and system configuration in the field.

The Square is **easy to mount** with the included adhesive or screws. You can easily remove the screw brackets if you do not want to use screw mounting.



## DESCRIPTION

### SQUARE AIR LORAWAN

Square Air is an advanced multi-sensor designed for comprehensive indoor air quality monitoring. It measures air quality index (IAQ), CO<sub>2</sub> equivalent (CO<sub>2</sub>e), bVOC, temperature, humidity, barometric pressure, and ambient light, providing a complete picture of indoor environments.

Powered by the Bosch BME688 AI-enabled gas sensor, Square Air acts as a digital nose, capable of detecting a wide range of airborne substances and enabling smarter, data-driven ventilation and energy optimization.

With a compact design (58 × 58 × 15 mm) and a high-capacity battery, it delivers up to 15 years of operation (depending on usage profile), making it ideal for long-term deployments in buildings and facilities.

#### Typical use cases

- Indoor air quality monitoring in offices and buildings
- Smart ventilation and HVAC optimization
- Schools, hospitals, and public environments
- Workplace health and productivity monitoring
- Detection of air quality deviations and anomalies

#### Key advantages

- Advanced air quality sensing – IAQ, CO<sub>2</sub>e, bVOC and multiple environmental parameters
- AI-powered gas detection – Bosch BME688 enables detection of complex air compositions
- Long battery life – up to 15 years depending on usage profile
- Multi-function sensor – combines air quality, climate, and ambient light sensing
- Easy configuration – via NFC using Sensative's NFC app for Android smartphones
- Discreet and compact design – suitable for professional environments

#### Important note on CO<sub>2</sub> measurement

Square Air estimates CO<sub>2</sub> equivalent (CO<sub>2</sub>e) based on detected VOC levels related to human presence.

It is not designed for detecting CO<sub>2</sub> leaks from pressurized systems or gas installations.

#### Advanced capabilities

Square Air can be trained to detect specific gases or substances using AI-based configuration of the BME688 sensor, enabling tailored applications for specialized environments.

**This functionality requires training. Please contact Sensative for more information.**

## **Installation**

Square Air can be mounted using the integrated adhesive for quick installation, or with the Sensitive Square Screw Mounting Kit (optional) for secure and permanent mounting.

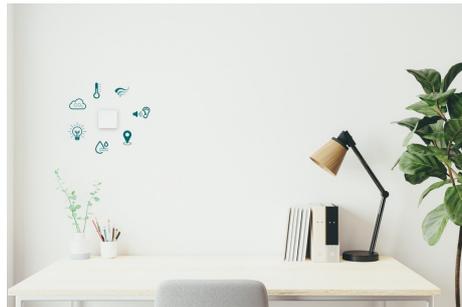
### **Smart geolocation (without GPS)**

Square Air supports cloud-based Wi-Fi geolocation, enabling positioning in indoor or GPS-denied environments by scanning nearby Wi-Fi networks.

This functionality requires a compatible cloud service such as Sensitive Yggio.

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## IMAGE GALLERY



# SPECIFICATION

## Application

Application Room sensor, smoke detection, Occupancy, Air Quality, Asset management, Room comfort, HVAC Control, Temperature/Humidity

## Benefits

Benefits Blend-in design, Long-range (2 km), Simple installation & mounting, All-in-one air quality sensor, Location-aware, Built-in data memory

In/Outdoor usage Indoor

## Features

Sensor Geolocation, Humidity, Ambient Light (Lux), Temperature, Air pressure, CO2eq, bVOC, Air Quality Index (IAQ), Indoor positioning

Accessories Cloud Positioning Service

Configuration LoRaWAN OTAA, NFC

Geopositioning WIFI 2.4 GHz

## Connectivity data

Frequency EU (868 MHz) or India (868 MHz) or US (915 MHz) or AU915 - Australia 915 - 928 MHz or AS923-1 - Asia 902 - 928 MHz or KR920 - South Korea 902 - 928 MHz or AS923-2 - Asia 923-925 MHz

Protocols / Connectivity LoRaWAN, NFC

LoRaWAN version V 1.0.4

LoRaWAN class Class A

## Sensor data

Ambient light range 1 - 65 000 LUX

Temperature accuracy +/- 0.2 °C

Humidity accuracy 1.8% RH

Sensor circuit Bosch BME688, Avago APDS-9306, Sensirion SHT40

Sensor type GPS/Beidou and WiFi location

## Power supply

Powered by Non-replaceable battery, LiMnO2, 6 Ah

## Operating Conditions

Operating range -20 - +60 °C

## Mechanical data

Weight (g) 65

Width (mm) 58

Depth (mm) 15

Height (mm) 58



March 30, 2026 9:55 am

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