AIR QUALITY SENSOR · LORAWAN



Square Air

The all-in-one indoor air quality sensor: a gas sensor that reads how the air actually behaves, with temperature, humidity, pressure and light in one 58 mm square.

- IAQ · bVOC · CO_2 equivalent
- Temperature · humidity · pressure · light
- LoRaWAN · NFC
- 6,000 mAh · 6–12 years
- Gas sensor · IP30 indoor

OVERVIEW

Square Air is built around a metal-oxide gas sensor that detects a broad mix of volatile organic compounds from materials, activities and people. From it the sensor derives an indoor air quality index (IAQ), a breath-VOC value and a CO_2 equivalent, alongside ±0.2 °C temperature, humidity, barometric pressure and ambient light.

That makes it a better guide to ventilation than a CO_2 number alone. It also senses smoke, though it is not a certified fire alarm. The CO_2 value is an estimate derived from breath-related gases; for measured CO_2 there is Square CO2 in the same housing. The 6,000 mAh battery lasts about 6–7 years with continuous measurement, and about 12 years when it measures in extended office hours only (06:00–20:00, Monday to Friday). Mount with the integrated adhesive or the optional screw kit.

WHY IT MATTERS

How air actually behaves
The gas sensor picks up the VOCs a CO_2 sensor misses, from cleaning agents, materials and people.

Air quality, climate and light in one device
IAQ, bVOC, CO_2 equivalent, temperature, humidity, pressure and light.

Ventilation on evidence
Drive ventilation from air quality instead of the clock, with one rule in Yggio.



Square Air in use

Specifications

SENSING

Sensors	IAQ index, bVOC and CO_2 equivalent (gas sensor), temperature, humidity, air pressure, ambient light
Temperature accuracy	±0.2 °C
Humidity accuracy	±3 % RH
Light range	1–65,000 lux

CONNECTIVITY

Protocol	LoRaWAN 1.0.4, Class A, OTAA
Frequency	EU868 · US915 · AU915 · AS923-1 · AS923-2 · KR920 · IN865
Configuration	NFC (Android) and over the air; alternative VSM apps through the Hugin app or over LoRaWAN
Positioning	2.4 GHz Wi-Fi geopositioning via cloud service

POWER AND HOUSING

Battery	Built-in $LiMnO_2$, 6,000 mAh: about 6–7 years measuring continuously, about 12 years measuring 06:00–20:00 Mon–Fri
IP rating	IP30, indoor
Operating temp	–20 to +60 °C
Dimensions	58 × 58 × 15 mm
Weight	65 g
Mounting	Adhesive, or optional screw mounting kit

TYPICAL USE

- Indoor air quality in offices and public buildings
- Ventilation driven by air quality, not the clock
- Schools, hospitals and care homes
- Odour and cleaning-agent detection in washrooms
- Workplace health and productivity monitoring
- Early warning of smoke or organic decay

WHAT EVERY SENSOR SHARES

Years on one battery

Ultra-low-power design, and cloud-side processing where it saves energy. Battery life depends on the sensor and how often it reports: well over ten years for most sensors.

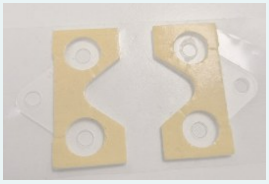
Configured over the air

Every sensor takes its settings over the air, so a change of reporting interval or threshold never means a ladder. Square, Square Xtreme, Puck and Prism can also be set up on site with an Android phone over NFC, and they run downloadable VSM apps: a sensor already on the wall can be given a new task without touching the hardware.

IN THE BOX · MOUNTING



Adhesive back



Square screw mounting kit

In the box

Square Air, adhesive pre-applied on the back. No tools, no screws, no power supply.

Mounting

Adhesive, or optional screw mounting kit — the square screw mounting kit is sold separately.

MORE INFORMATION

Product page and downloads: sensative.com/sensors/square-air
Manuals, payload decoders and integration guides: public.yggio.net/docs
Questions and quotes: sales@sensative.com · Buy: shop.sensative.com or a Sensative reseller

Specifications are subject to change without notice in the interest of continuous product improvement.