



# Sensedge Go Commercial IAQ Monitor (SE-300)



The Sensedge Go is Kaiterra's best wireless indoor air quality monitor ever designed, featuring an extremely fast installation, and the longest battery life on the market. The Sensedge Go monitors up to 14 parameters, is RESET Grade B certified, and is part of the Works with WELL catalog.



## Product Features

### Default sensors

Particulate Matter (PM<sub>1</sub>, PM<sub>2.5</sub>, PM<sub>10</sub>), TVOC, CO<sub>2</sub>, NO<sub>2</sub>, Relative Humidity, Temperature, Light (Lux and spectrum), Occupancy, Atmospheric Pressure

### Additional sensors (Coming soon)

CO, O<sub>3</sub>

### Battery life

Up to 8 years of battery life<sup>1</sup> using Adaptive Sampling™ and over 4 years using a high frequency fixed sampling rate<sup>2 3</sup>

### Installation

Peel-and-stick wall installation  
Electrical junction box installation

1. Using Adaptive Sampling™ in a building with 15 devices, located in a typical North American city with mechanical ventilation and strong wireless signal strength to the gateway.
2. During operating hours (9-5, Mon-Fri): one sample per minute for all sensors except particulate matter, and one sample every 10 minutes for particulate matter. Outside of operating hours: one sample every five minutes for all sensors except particulate matter sensor, and one sample every 60 minutes for particulate matter.
3. Actual battery life may vary based on usage, environmental conditions, and other factors.

# Sensor Specification

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## Particulate Matter Sensor

### Sensor technology

Laser particle sensor (Light scattering)

### Mass concentration size range

PM<sub>1</sub>: 0.3 to 1.0 µm

PM<sub>2.5</sub>: 0.3 to 2.5 µm

PM<sub>10</sub>: 0.3 to 10.0 µm

### Mass concentration range

0 to 1,000 µg/m<sup>3</sup>

### Mass concentration accuracy for PM<sub>2.5</sub>

0 to 30 µg/m<sup>3</sup> ±3 µg/m<sup>3</sup>

30 to 1000 µg/m<sup>3</sup> ±10 % m.v.

### Sensor output resolution

1 µg/m<sup>3</sup>

### Calibration

Calibrated against standardized aerosol mix

## TVOC Sensor

### Sensor technology

Multi-pixel metal oxide sensor (MOx)

### Target gas profile

Complex mixture of 22 VOCs<sup>1</sup> as defined by Molhave et al.

### Measurement range

0 - 60000 ppb

### Accuracy

±15 % ±8 ppb

### Sensor output resolution

1 ppb

### Calibration

Calibrated against ethanol

### Sampling process

Passive

## CO<sub>2</sub> Sensor

### Sensor technology

Non-dispersive infrared (NDIR)

### Measurement range

400 to 2,000 ppm<sup>2</sup>

Up to 10,000 ppm extended range<sup>3</sup>

### Accuracy<sup>4</sup>

± 40 ppm ± 3% (Comply with ANSI/ASHRAE

Standard 62.1-2022)

### Sensor output resolution

1 ppm

## Nitrogen Dioxide Sensor

### Sensor technology

Multi-pixel metal oxide sensor (MOx)

### Measurement range

0 - 10000 ppb

### Sensor output resolution

1 ppb

### Calibration

NO<sub>2</sub> in clean air

### Precision

< ±20 %<sup>5</sup>

### Sampling process

Passive

## Temperature Sensor

### Sensor technology

Digital sensor

### Measurement range

-20 - 100 °C

### Accuracy

±0.2 °C

### Sensor output resolution

0.1 °C

## Relative Humidity Sensor

### Sensor technology

Digital sensor

### Measurement range

0 - 100 %RH

### Accuracy

±2 % RH

### Sensor output resolution

0.1 % RH

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1. n-Hexane, n-Nonane, n-Decane, n-Undecane, 1-Octane, 1-Decene, Cyclohexane, m-Xylene, Ethylbenzene, 1,2,4-Trimethylbenzene, n-Propylbenzene, a-Pinene, n-Pentanal, n-Hexanal, Iso-propanol, n-Butanol, 2-Butanone, 3-Methyl-3-butanone, 4-Methyl-2-pentanone, n-Butylacetate, Ethoxyethylacetate, 1, 2-Dichloroethane

2. Extended exposure to concentrations below 400 ppm may result in incorrect operation of ABC algorithm and should be avoided.

3. Sensor provides readings in the extended range but the accuracy may be lower than that specified in the table.

4. The accuracy specification covers environments ranging from 0-50°C and 0-80% RH, and complies with indoor air quality standards ANSI/ASHRAE Standard 62.1-2022 at 25°C.

5. Sensor specifications are under controlled laboratory conditions. Field measurements may use localized ambient air quality and historical infiltration rates to enhance the accuracy and baseline readings of NO<sub>2</sub> concentrations. This method is effective under typical indoor conditions but may not suit environments with persistently high indoor NO<sub>2</sub> levels.

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## Atmospheric Pressure Sensor

### Sensor Technology

Microelectromechanical systems (MEMS) sensor

### Range

300-1100 hPa

### Accuracy

±0.3 hPa

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## Occupancy Sensor

**Focus:** 5.2 mm

**Sensing angle:** 120°

**Sensing distance:** 5 m

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## Device Specification

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### Power

Battery: 6 x Li/SOCI2 AA size

USB-C: 5V 0.5A (Cable not included)

PoE: via PoE to USB-C converter (Cable not included)

### Battery Life

Up to 8 years of battery life<sup>1</sup> using Adaptive Sampling™

Over 4 years using a high frequency fixed sampling rate<sup>2 3</sup>

### Connectivity

Sub-Ghz wireless communication using gateways

Frequency range (MHz):

IIN865/EU868/US915/AU915/KR920/AS923

These frequency bands cover over 200 countries, contact Kaiterra for details on compliance in your location.

Gateway supports cellular<sup>4</sup> and ethernet

### Integration

BACnet/IP via Gateway

API

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## Light Sensor

### Field of view

90 ° horizontal, 90 ° vertical

### Light channels

R/G/B/IR/C

### Range

0 - 60000 lux

### Color Temperature range:

1000-10000 K

### Data Storage & Logging

Cloud storage

Local data storage: 0.5 days

Data sampling: Adaptive Sampling™ to automatically adjust sampling frequency to maximize battery life. Selected sensors support a configurable sampling rate from 1 minute to 24 hours.

### Modules & Calibration

Compatible modules: KM-300 (Particulate Matter), KM-301 (CO & O<sub>3</sub>, coming soon)

Calibration via replaceable sensor modules

### Certifications

RESET Grade B Accredited

Works with WELL

### Operating conditions

Operating temperature: -20 - 50 °C

Operating humidity: 5 to 95 %RH, non-condensing

### Size & Weight

155 mm x 126 mm x 34 mm (6.1" x 5.0" x 1.4")

370g (0.82 lbs)

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3. Actual battery life may vary based on usage, environmental conditions, and other factors.

4. Cellular is supported in select countries and regions.