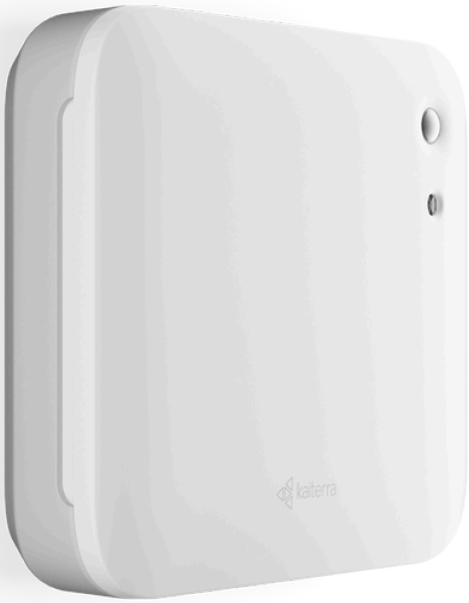
kaiterra

Sensedge Go Commercial IAQ Monitor



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

Easy installation
Peel-and-stick wall installation
Electrical junction box installation

Long battery life
Up to 8 years of battery life[1] using Adaptive Sampling™ and over 4 years using a high-frequency fixed sampling rate[2, 3]

Long-range gateway
Sub-Ghz wireless communication; Penetrate 3~5 floors and reach over one mile horizontally

Replaceable sensor modules
Modules can be swapped in seconds, providing a cost-effective way to maintain long-term accuracy and avoid the traditional calibration process.

Sensedge Go is Available in 3 Models

	SE-300W **Sensedge Go for WELL** Made for WELL projects to earn 9 points and replace performance testing for Air & Thermal Comfort	SE-300A **Sensedge Go** Best for commercial buildings and workplace wellbeing projects	SE-300L **Sensedge Go Core** Great for increasing monitoring coverage and data density
CO_2	✓	✓	✓
Temperature	✓	✓	✓
Relative Humidty	✓	✓	✓
Occupancy	✓	✓	✓
Light (Lux and spectrum)	✓	✓	✓
Atmospheric Pressure	✓	✓	✓
Particulate Matter (PM_1, $PM_{2.5}$, PM_{10})	✓	✓	
TVOC	✓	✓	
NO_2	✓		
CO	✓		
O_3	✓		

Sensor Specification

Particulate Matter Sensor

(Available in SE-300W, SE-300A)

Sensor technology
Laser particle sensor (Light scattering)
Mass concentration size range
$PM_{2.5}$: 0.3 to 2.5 µm
PM_{10}: 0.3 to 10.0 µm
Mass concentration range
0 to 1,000 µg/m³
Mass concentration accuracy for $PM_{2.5}$
0 to 30 µg/m³: ±3 µg/m³
30 to 1000 µg/m³: ±10 % m.v.
Mass concentration accuracy for PM_{10}
0 to 30 µg/m³: ±3 µg/m³
30 to 1000 µg/m³: ±15 % m.v.
Sensor output resolution
1 µg/m³
Calibration
Calibrated against standardized aerosol mix
WELL specification requirements
Adjustable particle density (K-factor) to accommodate project/region specific particulate profile.
Complies with WELL Performance Verification Guidebook to be used in WELL certification.

TVOC Sensor

(Available in SE-300W, SE-300A)

Sensor technology
Multi-pixel metal oxide sensor (MOx)
Target gas profile
Complex mixture of 22 VOCs[4] as defined by Molhave et al.
Measurement range
0 - 60,000 ppb
Accuracy
<±15 VOC Index points or % m.v. (the larger)
Sensor output resolution
1 ppb
Calibration
Ethanol in clean air
Sampling process
Passive
WELL specification requirements
Calibration gas: ethanol
Target gas profile (ppb=µg/m³ conversion factor under STP): 22 VOC mixed per Molhav et al. (1 ppb = 4.57 µg/m³)
Complies with WELL Performance Verification Guidebook to be used in WELL certification.

CO_2 Sensor

(Available in all models)

Sensor technology
Non-dispersive infrared (NDIR)
Measurement range
400 to 2,000 ppm[5]
Up to 10,000 ppm extended range[6]
Accuracy
± 40 ppm ± 3%[7] (Comply with ANSI/ASHRAE Standard 62.1-2022)
Sensor output resolution
1 ppm
Target gas
CO_2

Nitrogen Dioxide Sensor

(Available in SE-300W)

Sensor technology
Multi-pixel metal oxide sensor (MOx)
Measurement range
0 - 10,000 ppb
Sensor output resolution
1 ppb
Calibration
NO_2 in clean air
Precision
<±20 % [8]
Sampling process
Passive

Temperature Sensor
(Available in all models)

Sensor technology
Digital sensor
Measurement range
-20 - 100 °C
Accuracy
±0.2 °C
Sensor output resolution
0.1 °C

Relative Humidity Sensor
(Available in all models)

Sensor technology
Digital sensor
Measurement range
0 - 100 %RH
Accuracy
±2 % RH
Sensor output resolution
0.1 % RH

Atmospheric Pressure
(Available in all models)

Sensor Technology
Microelectromechanical systems (MEMS) sensor
Pressure Range
300-1100 hPa
Pressure Accuracy
±0.3 hPa

Light Sensor
(Available in all models)

Field of view
90 ° horizontal, 90 ° vertical
Light channels
R/G/B/IR/C
Measuring Range
0 - 60000 lux
Color Temperature range
1,000-10,000 K

Occupancy Sensor
(Available in all models)

Focus: 5.2 mm
Sensing angle: 120°
Sensing distance: 5 m

CO & O_3 Sensor
(Available in SE-300W)

Coming soon in Q3 2025.

Device Specification

Power
Battery: 6 x Li/SOCl2 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[9] using Adaptive Sampling™ and over 4 years using a high frequency fixed sampling rate[10] [11]

Data Logging & Storage
Data Storage: 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.

Connectivity
Frequency range (MHz):
Sub-Ghz wireless communication
IN865/EU868/US915/AU915/KR920/AS923
These frequency bands cover over 200 countries, contact Kaiterra for details on compliance in your location.
Gateway supports cellular[12] and ethernet

Integration
BACnet/IP via Gateway
API

Installation
Methods: Peel-and-stick installation for surface mount and drywall mount
Electrical junction box mount with screws

Modules & Calibration
Compatible modules: KM-300 (Particulate Matter sensor module), KM-308 (O3, NO2 & CO sensor module)
Calibration: Swappable sensor modules

Certifications
Quality: RESET Grade B
Healthy Building: 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 35 mm (6.1" x 5.0" x 1.4")
388 g (0.86 lbs)

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.
4. 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
5. Extended exposure to concentrations below 400 ppm may result in incorrect operation of ABC algorithm and should be avoided.
6. Sensor provides readings in the extended range but the accuracy may be lower than that specified in the table.
7. 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.
8. 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_2 concentrations. This method is effective under typical indoor conditions but may not suit environments with persistently high indoor NO_2 levels.
9. 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.
10. 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.
11. Actual battery life may vary based on usage, environmental conditions, and other factors.
12. Cellular is supported in select countries and regions.