

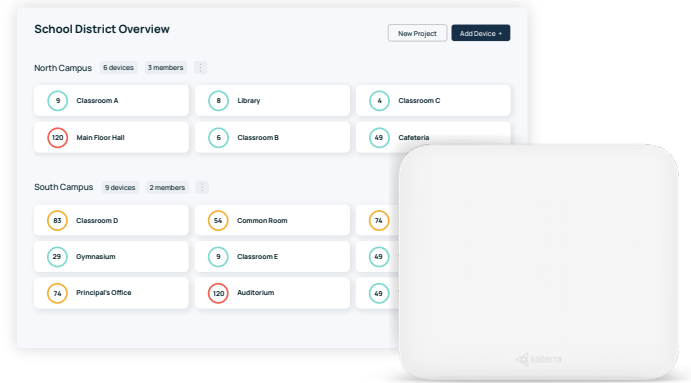


# Indoor Air Quality Monitoring, Analytics, and Optimization For Healthy Schools



# Empowering school leaders to improve indoor air quality.

Kaiterra provides a complete air quality analytics and optimization solution leveraging hardware, software and a team of IAQ experts to help schools measure, understand, and improve their indoor air quality.



## Good Air Quality = Better Schools

Optimal indoor air quality (IAQ) is essential in educational settings for promoting students' growth, well-being, and academic performance. Creating an environment with enhanced IAQ fosters an atmosphere where students, teachers, and staff can thrive and reach their full potential.



### Reduced Viral Transmission

Adequate ventilation lowers the risk of airborne transmission by diluting and removing viral particles from the air [CDC].



### Greater Health & Wellbeing

Improved IAQ can reduce respiratory symptoms and illnesses in students [EPA].



### Improved Student Attendance

On average, improved ventilation rates can result in up to 35% fewer sick days [LBNL].



### Higher Test Scores

Better IAQ can lead to a 5-10% improvement in academic performance [LBNL].



### Happier Faculty & Staff

Improve retention and reduce substitute teacher costs and absenteeism.



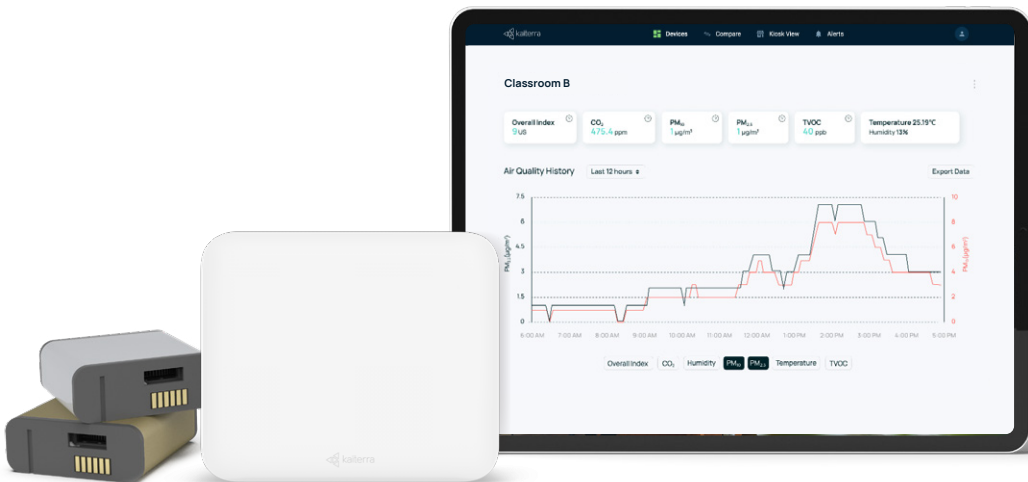
### Reduced Energy Costs

Understanding your indoor air quality can reduce HVAC costs by up to 32%.

# Proactively Measure and Manage Your Air Quality in Real-Time

In continuous monitoring, schools use air quality monitors that are installed throughout the building in order to collect data on an ongoing basis, and gain real-time visibility into the current state of air quality. Unlike spot tests, continuous monitoring happens consistently in the background, allowing school and facility leaders to track data and identify risks or optimization opportunities.

Continuous Monitoring	VS	Spot Testing
<b>Real-time monitoring and consistent data points:</b> Identify trends and problems faster		One-time measurement resulting in <b>limited data points.</b>
<b>Comprehensive coverage:</b> Know the true air quality across your school portfolio		One-location measurement leading to a <b>lack of comprehensive coverage.</b>
<b>Implement a data-driven strategy to improve indoor conditions:</b> Gain insights from data using a visual dashboard, and action on IAQ data in real time		Only have access to reports and not <b>raw data.</b>



## What This Means for Schools:

### ✔ Detect air quality issues faster

Real-time data and alerts allow for faster issue detection so you can manage problems effectively, whether it's day-to-day indoor pollution or seasonal events like wildfires.

### ✔ Identify and mitigate risks

Detect potential risks such as mold growth or viral transmission at an early stage, enabling timely intervention before they escalate.

### ✔ Guide effective strategies for IAQ improvements

Make informed decisions such as investing in air purifiers or HVAC upgrades, and monitor before and after to assess effectiveness.

### ✔ Streamline maintenance and operations

Leverage BMS integrations, alerts and weekly reports to optimize maintenance schedules and streamline building operations.

### ✔ Build trust with community

Utilize flexible, public dashboard options to share data and progress over time, and boost confidence among students, staff, and parents.

### ✔ Uncover energy-saving opportunities

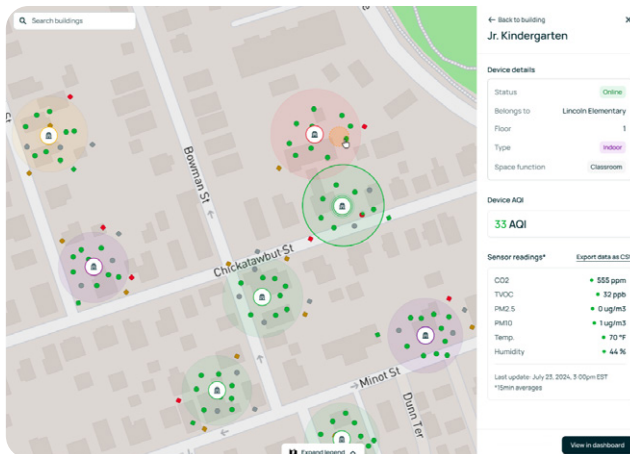
Identify over-ventilation and improve filtration performance with real-time IAQ data so that your systems are operating at maximum efficiency.



# Kaiterra: Trusted Partner for School Districts

## Best-In-Class Air Quality Monitors

Sleek, accurate, and reliable, our IAQ monitors measure and track key air pollutants and environmental parameters: PM<sub>2.5</sub>, PM<sub>10</sub>, TVOC, CO<sub>2</sub>, ozone, temperature, and relative humidity.



## Advanced Software Analytics & Actionable Insights

The Kaiterra Dashboard is more than a data visualization platform but packed with powerful reporting and analytics features. Whether you manage one school or one thousand, the Kaiterra Dashboard provides you with the right tools to benchmark, analyze, and optimize your IAQ across your district.

## Unmatched Air Expertise With A Personal Touch






Not all school districts have research teams to help them make sense of complex IAQ data. Monitoring IAQ with Kaiterra means you gain access to our collective expertise and team of experienced professionals to help you turn your IAQ data into action and improvements. From setup and onboarding, to discovery and evaluation, and finally ongoing review and support, our team will assist you in positively impacting your air quality.



# Sensedge (SE-100)

Premium IAQ monitor with a stunning display.

## Parameters:

	PM <sub>2.5</sub>
	CO <sub>2</sub>
	TVOC
	Temperature
	Humidity



## Modules:

### KM-100 (Sensedge):

Particulate Matter



### KM-103 (Sensedge):











TVOC

Temperature

Relative Humidity



## Features:

	RESET Grade B Certified
	Modular Design
	Cloud Storage
	8GB On-Board Memory
	7" Full Color Touchscreen
	5200mAh Battery Up to 8 Hours of Battery Life
	Wi-Fi
	Ethernet
	Modbus
	BACnet*







\* The Sensedge is BTL certified under the BACnet Smart Sensor (B-SS) device profile.

# Sensedge Mini (SE-200 & SE-200P)

Blends in anywhere and gets the job done. Works with WELL\*.

## Parameters:









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	PM <sub>2.5</sub>
	CO <sub>2</sub>
	TVOC
	O <sub>3</sub> **
	Temperature
	Humidity

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## Features:

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	RESET Grade B Certified
	Modular Design
	Cloud Storage
	Minimal, Unobtrusive Design
	Wi-Fi
	Ethernet
	Modbus
	BACnet***

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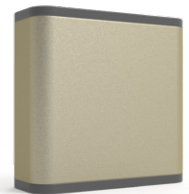
## Modules:

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KM-203  
(Sensedge Mini):

TVOC

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KM-200  
(Sensedge Mini):

Particulate Matter

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KM-207  
(Sensedge Mini):

TVOC

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Ozone

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\* The Sensedge Mini is part of the [Works with WELL](#) catalog and contributes to the achievement of specific WELL strategies.

\*\* Ozone measurement available with KM-207 module.

\*\*\* The Sensedge is BTL certified under the BACnet Smart Sensor (B-SS) device profile.

# Kaiterra Dashboard

More than viewing and exporting raw data - it's your IAQ powerhouse with advanced analytics.

The Kaiterra Dashboard is a powerful tool to help you extract insights from your IAQ data so that you can make meaningful improvements to your indoor environment.

Designed with our years of experience in helping school leaders improve their air, the Kaiterra Dashboard is more than a data visualization platform but packed with powerful reporting and analytics features. Whether you manage a single facility or oversee a large portfolio, the Kaiterra Dashboard provides you with the right tools to benchmark, analyze, and optimize your IAQ.

## Data Access and Export

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Real-time Data

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Historical Trends

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Kiosk View

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CSV Export

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PNG Export

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WELL Certification Export

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## Analytics and Reporting

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Device Comparison Tool

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IAQ Distribution Report

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Space v.s Time Report

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WELL Certification Report

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RESET Certification Report

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Weekly Email Report

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Alert Builder

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## Enterprise Management

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Building Management

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Device Management

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User Management

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Breakpoint Setting

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Single Sign-On

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# People

A team that truly knows IAQ inside and out to help you create real impact.

At Kaiterra, we consider ourselves 'certified air nerds'. We use our collective expertise and team of experienced professionals to help our clients drive change. We continuously invest in building our knowledge base and maintain strong relationships with several key organizations in the field, including WELL,

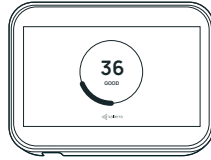
RESET, USGBC, AIA, and Nexus Labs. By staying up-to-date with the latest research and best practices, we are able to provide our clients with cutting-edge solutions and recommendations that positively impact their air quality.



Kaiterra provides support throughout the entire IAQ monitoring process, from setup and onboarding, to discovery and evaluation, and finally ongoing review and support. Our team will assist you with the initial stages of project scoping, one-on-one onboarding, and installation support. We are committed to continuing support after initial implementation, providing quarterly data reviews and check-ins, ongoing email support, and feature education to ensure continued success. As changes are made based on our recommendations, we will reassess the impact we are providing and drive positive change.



# TECHNICAL SPECIFICATIONS



**Sensedge**  
SE-100



**Sensedge Mini**  
SE-200 & SE-200P

Parameters	PM <sub>2.5</sub> , TVOC, CO <sub>2</sub> , Temp & RH	PM <sub>2.5</sub> , TVOC, CO <sub>2</sub> , O <sub>3</sub> *, Temp & RH
Particulate Matter	<p><b>Sensor Technology:</b> Laser particle sensor (Light scattering)</p> <p><b>Accuracy:</b> 0~100µg/m<sup>3</sup>: ±10µg/m 100~500µg/m<sup>3</sup>: ±10%</p> <p><b>Sensor Output Resolution:</b> 1 µg/m<sup>3</sup></p>	<p><b>Sensor Technology:</b> Laser particle sensor (Light scattering)</p> <p><b>Accuracy:</b> 0~100µg/m<sup>3</sup>: ±10µg/m 100~500µg/m<sup>3</sup>: ±10% m.v</p> <p><b>Sensor Output Resolution:</b> 1 µg/m<sup>3</sup></p>
TVOC	<p><b>Sensor Technology:</b> Multi-pixel metal oxide sensor (MOx) <b>Accuracy:</b> ±15 % ±8 ppb <b>Sensor Output Resolution:</b> 1 ppb</p>	
CO <sub>2</sub>	<p><b>Sensor Technology:</b> Non-dispersive infrared (NDIR) <b>Accuracy:</b> ± 40 ppm ± 3%** Comply with ANSI/ASHRAE Standard 62.1-2022 <b>Sensor Output Resolution:</b> 1 ppm</p>	
Ozone	—	<p><b>Sensor Technology:</b> Electrochemical <b>Accuracy:</b> ±10 % <b>Sensor Output Resolution:</b> 1 ppb</p>
Temperature	<p><b>Sensor Technology:</b> Digital sensor <b>Accuracy:</b> ±1 °C <b>Sensor Output Resolution:</b> 0.01 °C</p>	
Humidity	<p><b>Sensor Technology:</b> Digital sensor <b>Accuracy:</b> ±5 % RH <b>Sensor Output Resolution:</b> 0.01 % RH</p>	
Replaceable Modules	✓	✓
Installation	<p>Surface mount Drywall mount</p>	<p>Surface mount Drywall mount Electrical box mount</p>

\* Ozone measurement available with KM-207 module.

\*\*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.

<b>Power</b>	100-240V AC via USB-C (5V 1.8A DC)	100-240V AC via USB-C (5V 1.8A DC) 12-30V DC via direct wiring PoE (Available for model SE000200P)
<b>Built-in Battery</b>	5200mAh @ 4.2V Up to 8 hours of battery life	—
<b>Wi-Fi</b>	✓	✓
<b>Ethernet</b>	✓	✓
<b>BACnet</b>	✓	✓
<b>Modbus</b>	✓	✓
<b>MQTT</b>	✓	✓
<b>Open API</b>	✓	✓
<b>Cloud Storage</b>	✓	✓
<b>Local Storage</b>	8GB (> 50M data points) Micro SD card (32GB or smaller) - SD card not included	1-hour
<b>Data Logging</b>	<b>Frequency of readings (Log interval):</b> 1 minute, 1 hour, 1-day <b>Data push interval:</b> 1-minute	
<b>Dashboard</b>	✓	✓
<b>Display</b>	7" full color touchscreen	—
<b>Size</b>	Length: 184mm (7.2 in) Width: 146mm (5.7 in) Height: 48mm (1.9 in)	Length: 155mm (6.1 in) Width: 129mm (5.1 in) Height: 34mm (1.3 in)
<b>Weight</b>	800g (1.76 lbs)	370g (0.82 lbs)
<b>Languages</b>	English, German, Traditional Chinese, Simplified Chinese	—
<b>Operating Conditions</b>	<b>Operational temperature:</b> 0 - 50 °C <b>Operational humidity:</b> 5 to 95 %RH, non-condensing	
<b>Warranty &amp; Durability</b>	<b>Standard warranty:</b> 1 year <b>Expected lifespan:</b> 5 to 7 years	
<b>Certifications</b>	<b>Environmental:</b> ROHS, WEEE, TDRA <b>Safety:</b> FCC (US), CE (Europe), BIS (India), IC (Canada), LVD, MIC, NCC <b>Quality:</b> RESET Grade B <b>Building automation:</b> BTL	<b>Environmental:</b> ROHS, WEEE, TDRA, SRRC <b>Safety:</b> FCC (US), CE (Europe), BIS (India) <b>Quality:</b> RESET Grade B <b>Building automation:</b> BTL <b>Healthy Building:</b> Works with WELL
<b>Recommended Monitor Density</b>	One monitor per 3,500ft <sup>2</sup> (325m <sup>2</sup> ). Space types and layouts should be considered in accordance with project requirements.	

# Say goodbye to data silos. Say hello to fully integrated automated solutions.

 METASYS

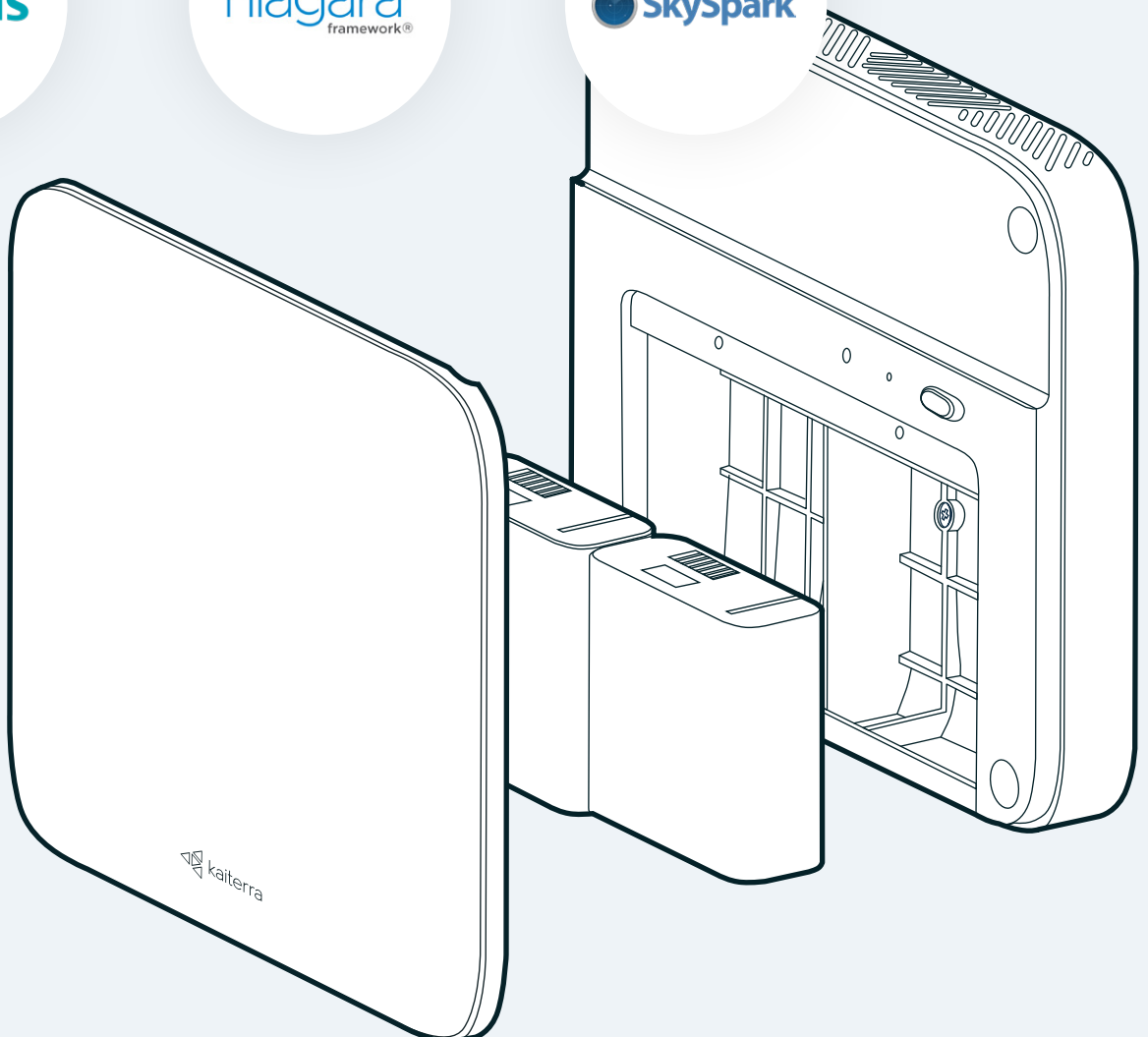
 Schneider  
Electric

OpenBlue

SIEMENS

niagara  
framework®

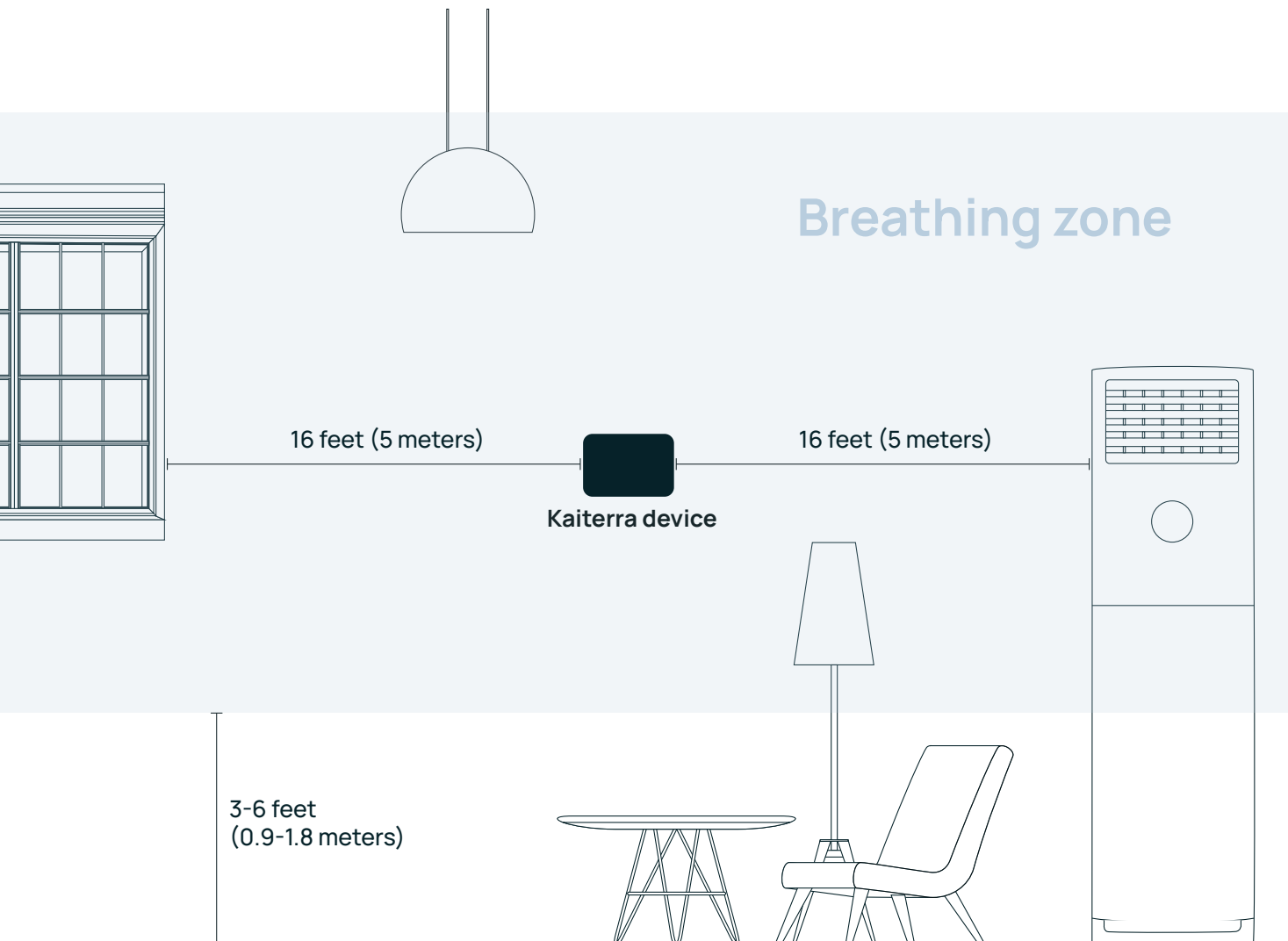
 SkySpark



# Placement Guidelines

When deciding where to position air quality monitors, it is important to prioritize representativeness. This means that the readings from the devices should accurately reflect the air quality that people are exposed to. Achieving this goal requires careful consideration of factors such as the height, relative placement, and density of the monitors.

- ✓ Wall-mounted and centrally located within monitored spaces
- ✓ Mounted within the breathing zone: between 3 to 6 feet (900-1800 mm) from the ground
- ✓ Located at least 5 meters (16 feet) away from operable windows, as well as air filters and fresh-air diffusers
- ✓ Hard-wired to a permanent power source (recommended)



# Why Choose Kaiterra for IAQ Monitoring?

	Kaiterra	Other IAQ Vendors
<b>Vendor Relationship</b>	You're partnering directly with the device manufacturer and software developer, which guarantees consistent, high-quality products.	Often intermediaries who resell 3rd party hardware and software, which may lead to variable stock and quality.
<b>Supply Chain Management</b>	Kaiterra has complete visibility and control over the supply chain, allowing rapid issue response and timely delivery.	Limited control, potentially resulting in delays and issues beyond their control.
<b>Cost Efficiency</b>	Working with Kaiterra directly reduces costs and avoids mark-ups, providing cost-effective solutions.	Inevitable mark-ups on both hardware and software, which result in higher costs.
<b>Post-Sale Support</b>	Kaiterra's product knowledge and IAQ expertise ensures efficient and effective post-sale support for customers.	May lack deep product expertise or need to liaise with manufacturers for complex issues.
<b>Feedback Loop</b>	Kaiterra's direct engagement allows rapid product improvements based on customer feedback.	May face challenges in effectively relaying customer feedback to manufacturers.
<b>Exclusive Offers</b>	Kaiterra offers potential for exclusive deals, bundles, and volume discounts to benefit customers.	Offers may be limited to their agreements with manufacturers, potentially offering fewer benefits to customers.
<b>Resell Agreement Terminations</b>	Kaiterra's direct relationship with customers ensures continuity without the risk of reseller agreements being terminated.	Subject to the risk of reseller agreements being terminated, potentially leaving customers without a provider.
<b>Trusted and Secure</b>	Kaiterra is trusted by the world's most security conscious organizations including Google and Amazon, and is the only device whitelisted and approved for use in US Federal buildings by the US General Services Administration (GSA).	No device is currently approved for use in Federal buildings by the US General Services Administration (GSA).

# About Kaiterra

Kaiterra provides continuous air quality monitoring for some of the world's most innovative companies, government agencies, and we're rapidly growing our K-12 school portfolio. Our real-time data and insights help leaders proactively improve indoor air quality and create healthier, safer, and more productive environments.

## At a Glance

**148M+**

square feet of operating data

**430M+**

data points collected daily

**149**

countries and regions

## Recent K-12 Highlights

**2**

Statewide programs

**1000+**

School buildings

**5000+**

Monitors installed

## Loved By All

GSA



J.P.Morgan



ARUP

Sterling Bay

Hines



SOM





# Get in touch!

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