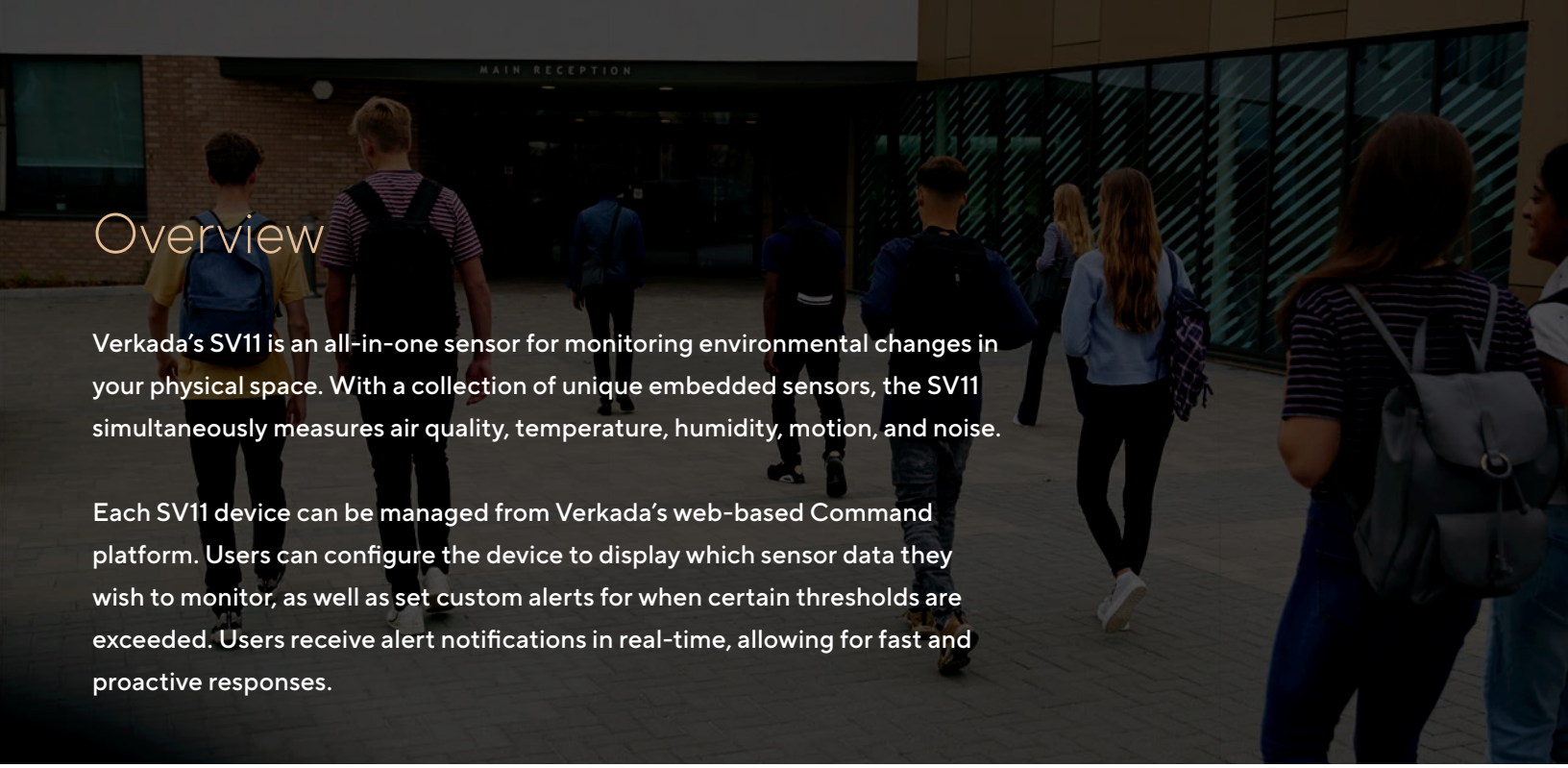
Verkada

SV11 Environmental Sensor

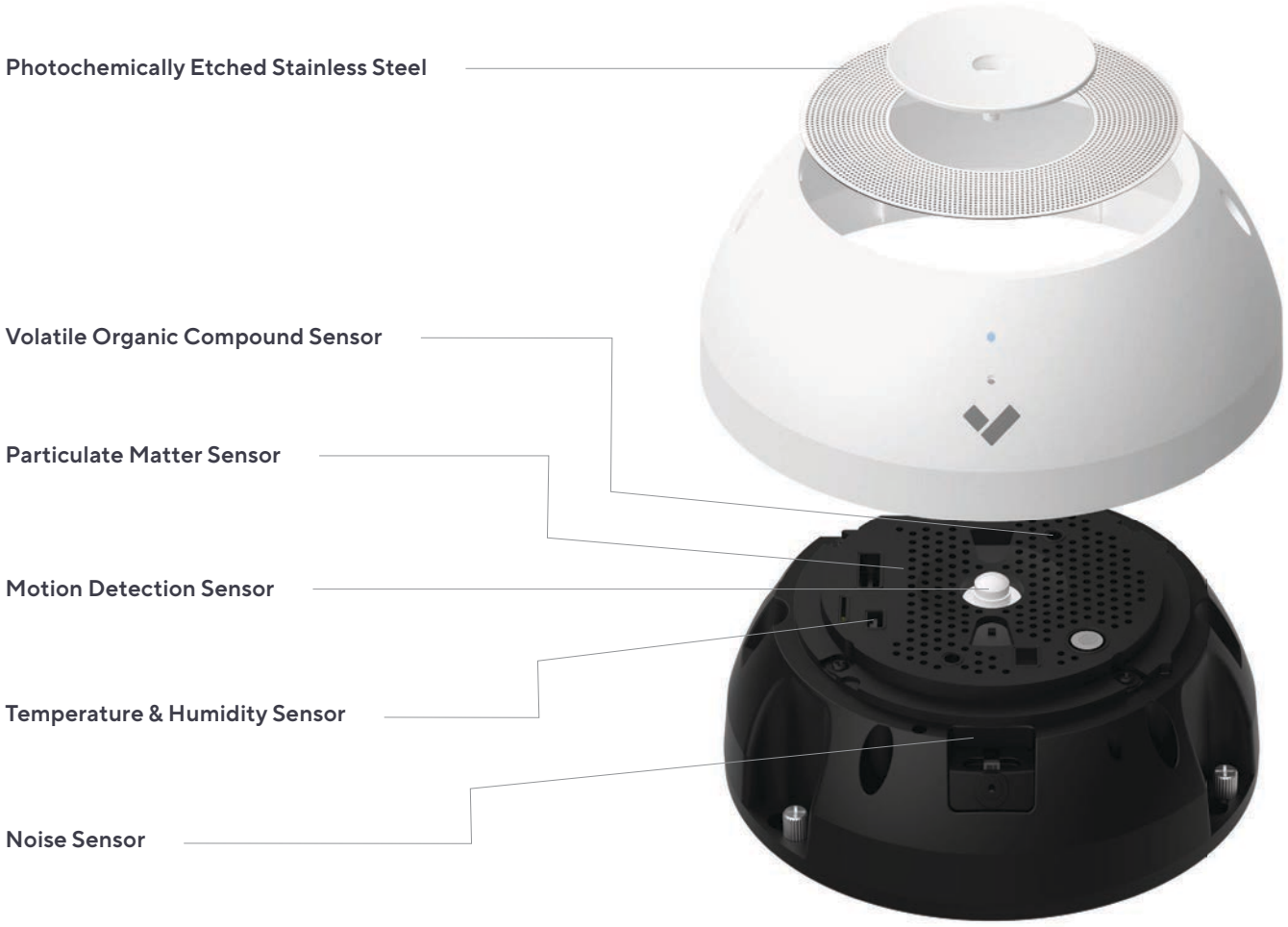
User Guide for Vaping & Smoking Detection



Overview

Verkada's SV11 is an all-in-one sensor for monitoring environmental changes in your physical space. With a collection of unique embedded sensors, the SV11 simultaneously measures air quality, temperature, humidity, motion, and noise.

Each SV11 device can be managed from Verkada's web-based Command platform. Users can configure the device to display which sensor data they wish to monitor, as well as set custom alerts for when certain thresholds are exceeded. Users receive alert notifications in real-time, allowing for fast and proactive responses.

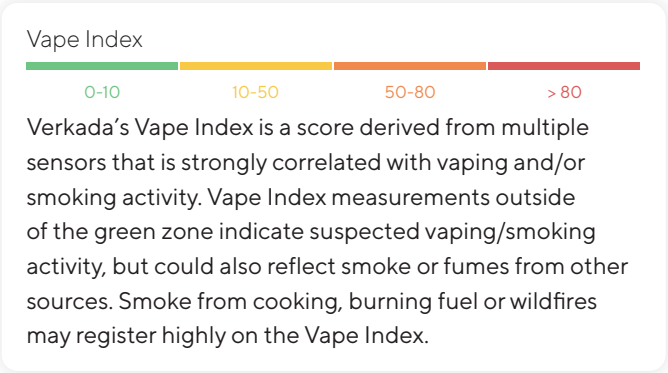


Vape Index

How It Works

Verkada's SV11 uses multiple onboard sensors to detect and measure vaping events. Combined, these sensor readings are used to calculate Verkada's Vape Index, which indicates the likeliness of vaping or smoking occurring on a scale of 1-100.

The Vape Index takes several environmental changes into consideration, including increases in total volatile organic compounds (TVOCs), fine particulate matter (PM2.5) and motion detection events.



Verkada's Vape Index is a score derived from multiple sensors that is strongly correlated with vaping and/or smoking activity. Vape Index measurements outside of the green zone indicate suspected vaping/smoking activity, but could also reflect smoke or fumes from other sources. Smoke from cooking, burning fuel or wildfires may register highly on the Vape Index.

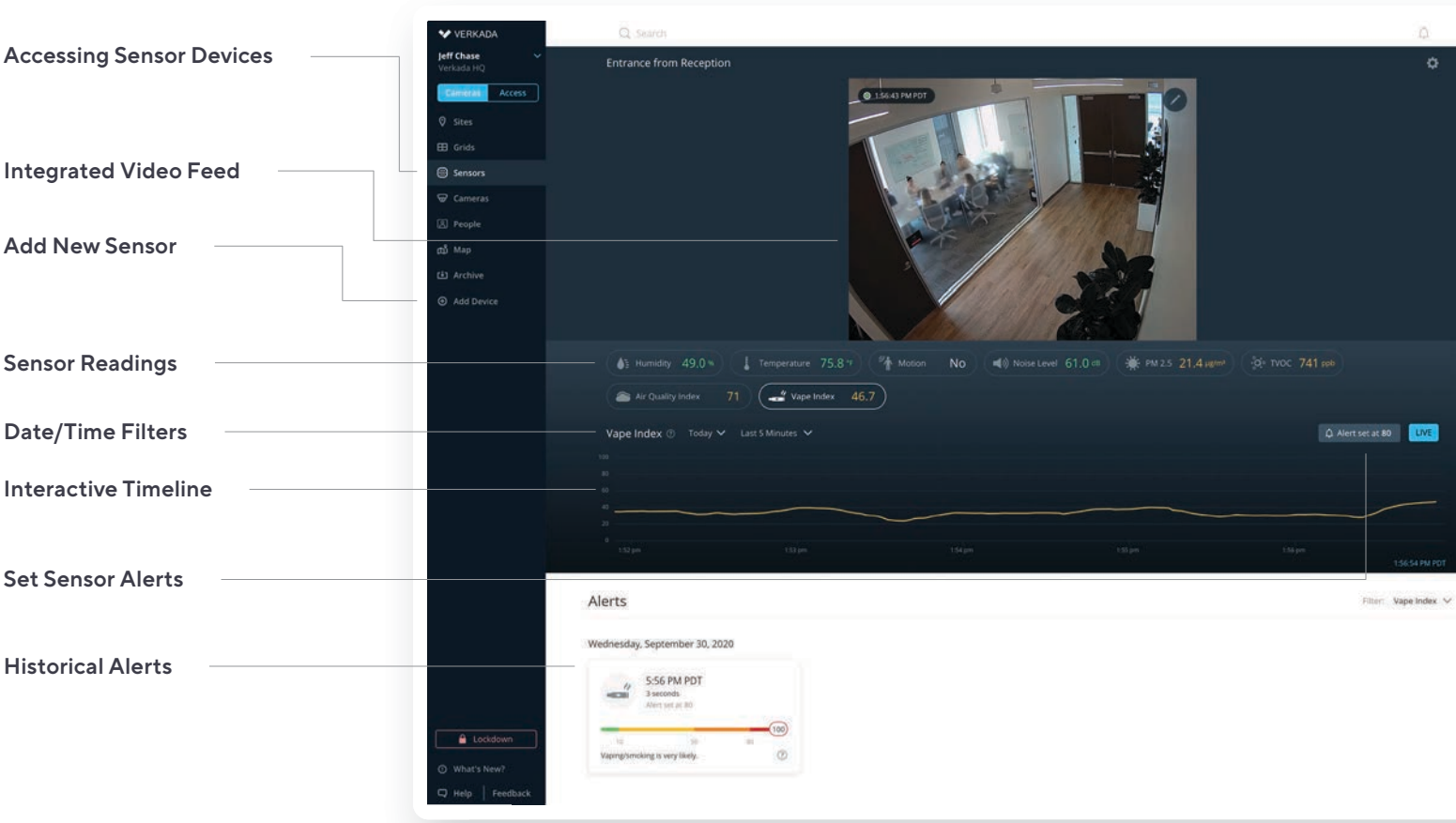
Will the Vape Index only detect vaping events?

While the Vape Index is designed to ignore cleaning products and common aerosols used in bathrooms, some fine particles and fumes may mimic the chemical signature of vaping/smoking and trigger false positives. Alternative sources of particulates in the air, such as cooking, exhaust, or wildfires, may increase the Vape Index score.

For this reason, the Vape Index should only be enabled in areas more prone to vaping (restrooms, classrooms, hallways, hotel rooms) and not in spaces where common events could cause a false positive (kitchens, manufacturing floors). Additionally, users are encouraged to link a camera with each sensor, providing visibility and context into events taking place to investigate what triggered an increase in the Vape Index reading.

Platform Overview

Sensors are managed, configured and monitored through Verkada's web-based Command platform.



Native Video Integration

From Command, sensors can be paired with a Verkada camera to gain greater visibility of what occurred at a given event. This integration is made possible through Verkada's all-in-one platform, enabling users to effortlessly add cameras without additional software or configurations.

Set Up: Alerts

Set Custom Thresholds

After clicking on the Set Alert button from the main sensor page, users can customize the threshold at which they want to receive an alert. Users can choose any number from 1-100 on the Vape Index scale.

Notify Users

Once a threshold is set, administrators can set which users should receive alerts. These users will need to have an account in Command. When a threshold is met, the predetermined users will receive an alert to take action.

Manage Alert Settings

For each user, set the days of the week and hours for when an alert can be received and the method of alerting (SMS or email). Custom alerts are ideal for teams that work on different schedules or to reduce unnecessary notifications outside of work hours.

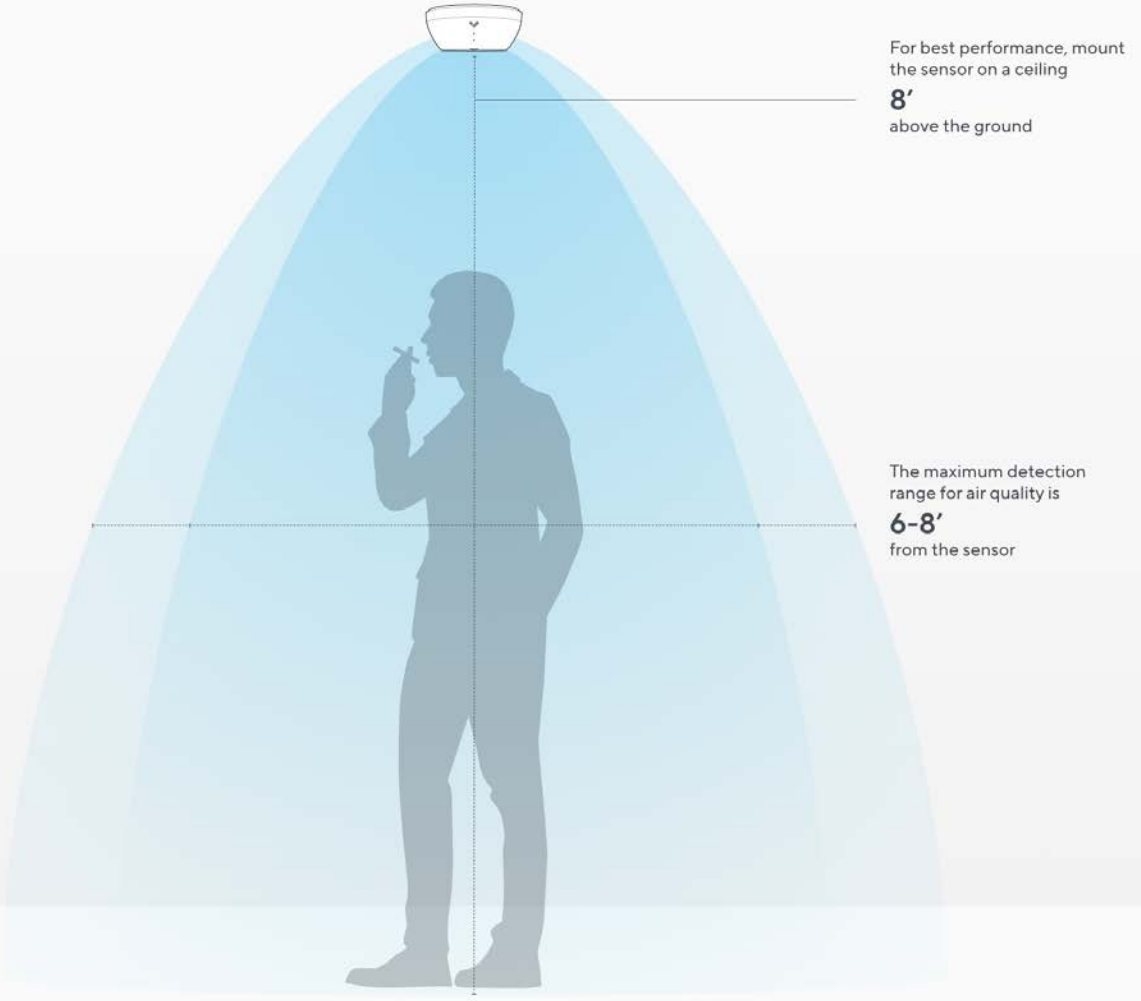
Set Up: Mounting

Mounting Location

For detecting vaping and smoking events, it is recommended to have the SV11 mounted from the ceiling directly above the area where smoking is likely to occur. For best results, the SV11 should be placed 8 feet from the ground.

What to Avoid

Since particles and chemicals in the air must come into contact with the SV11 to be detected, it is important to keep the device away from sources of accelerated air flow. Doing so will ensure the air diffuses normally into the device.



Testing Your Sensor

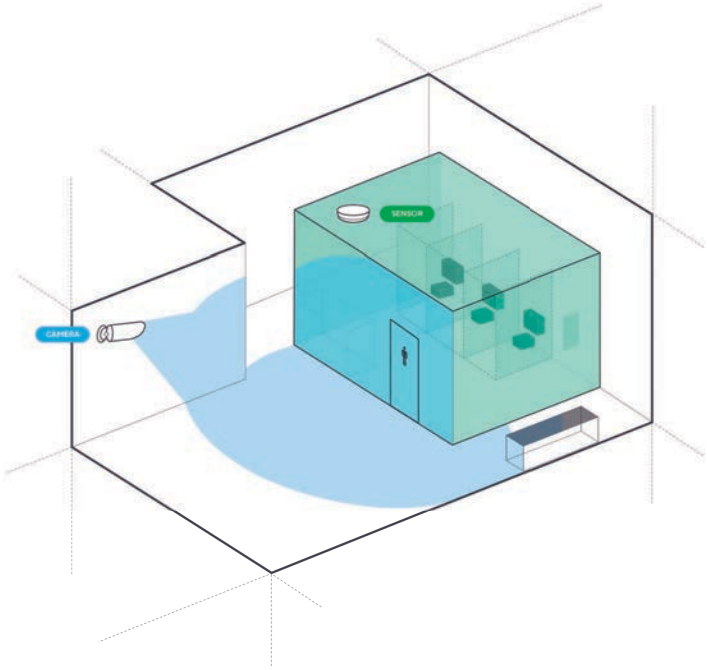
1. Light a match near likely vape location and let the smoke blow up into the sensor.
2. Look at the Vape Index reading in the Verkada Command platform.
3. Set your SV11's Vape Index threshold below that number for best results.

Pairing With Cameras

Private Areas

A key area where vaping and smoking often occurs is in spaces like restrooms and locker rooms. This is usually the case for schools, where students will vape discreetly in places like bathroom stalls.

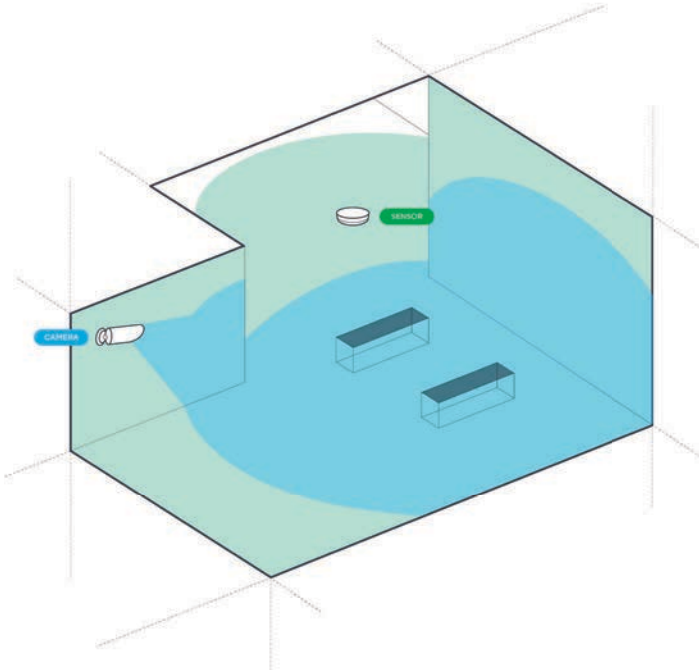
To ensure privacy, cameras should be placed outside of these areas and positioned at a point of entry. When reviewing events, this will allow users to see who came and went during an incident.



Public Areas

For non-private areas, such as classrooms, hallways or open spaces, users may place sensors and cameras in the same area at their discretion.

For the best context and visibility, have cameras positioned towards areas of interest. This can include directly under where the sensor is and where vaping/smoking behavior is likely to occur.



Disclaimer on Investigations

The SV11 Vape Index measures air quality events indicative of vaping and smoking, but cannot provide proof of a vaping incident. Administrators should use the SV11 Vape Index and Verkada camera integration to help with investigations and monitor vaping activity and patterns, but use searches for physical evidence as to the basis for further disciplinary/legal actions.

About Verkada

Verkada brings the ease of use that consumer security solutions provide, to the levels of scale and protection that businesses and organizations require.

By building high-end hardware on an intuitive, cloud-based software platform, modern enterprises are able to run safer, smarter buildings across all of their locations.

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