SV21

Air Quality Sensor

Overview

The SV21 air quality sensor is a cloud-managed device for monitoring indoor air quality and ambient environment conditions. It specifically measures temperature, relative humidity, and carbon dioxide. The SV21 additionally offers readings for indices like Heat Index, Humidex, Mold Risk Index, and Dew Point Index, which each represent a unique composite of temperature and relative humidity.

This sensor is well suited for environments like IDF/MDF closets, server rooms, and cold storage areas, where regulating temperature and protecting food, inventory, and networking infrastructure is paramount.

Organizations additionally benefit from alerts for offline devices, 24/7 support, and automatic firmware updates, helping to ensure their sensors are operational and improving over time.

Key Features

Multifaceted coverage

- 8 ambient environment and air quality readings help organizations protect people and assets

Easy, durable install

- Durable, vandal-resistant design and an optional accessory support secure wall or ceiling mounting
- PoE-only connection coupled with intuitive software brings devices online in minutes

Superior performance

- Bandwidth-friendly design, operating at <5 kbps per device, enables enterprise scale
- 365 days onboard storage of air quality sensor data supports compliance and operational needs

SV21
Tech Specs

SV21

Power and Network

Power Consumption	4W	**Connectivity**	RJ-45 cable connector for Network/PoE connection
Power Input	IEEE 802.3af PoE	**LED Indicator**	System power and status indicator

General

Operating Temperature	-32°C* to +45.0°C (-25°F to 113.0°F) Indoors	**Offline Mode**	Continues sampling and storing data on device
Operating Humidity	0 to 95.0%	**Sampling Frequency**	5 seconds
Storage	Device: up to 365 Days Cloud: up to 365 Days	**Warranty**	10 years

Compliance and Availability

Availability	USA, CA, IN, UK, UK, EU, AUS, NZ, MX	**Compliance & Safety**	FCC Part 15B Class B, ICES-003 Class B, NDAA, UKCA, CE, RCM, VCCI, KCC, BIS, NOM, UL/cUL/IEC 62368-1

Software Capabilities

Alerts	Device status, specific alerts for each sensor reading based on duration and reading level	**Sensor Events**	Configurable events for every on-device sensor reading
Alert Notifications	Configurable SMS and email notifications	**Sensor Zones**	Configurable alerts based on a group of sensors

*All sensor readings with the exception of CO2 read accurately down to -32° C.
All sensor readings, including CO2, read accurately down to -5° C.

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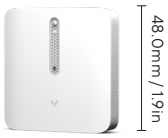
Mechanical

Dimensions	Length: 170.0mm / 6.96in Width: 169.5mm / 6.67in Height: 48.0mm / 1.8in	**Weight**	500.0g / 17.64oz

Dimensions



Onboard Sensors

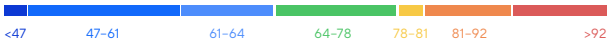
Temperature	Sensor: CMOS Operating Range: -5.0 to 45.0°C (23.0 to 113.0°F) Typical Accuracy: ± 0.5°C (± 0.9°F), Max ± 1.0°C / (± 1.8°F)	**CO_2**	Sensor: Photoacoustic, Range: 0 - 40,000 ppm Typical Accuracy: 400 ppm - 1000 ppm ± 75 ppm 1001 ppm - 2000 ppm ± (40 ppm + 5% of reading)
Relative Humidity	Sensor: CMOS Operating Range: 0.0 - 95.0% non-condensing Typical Accuracy: ± 3.0% @ 25.0°C	**Heat Index**	Sensor: Formula derived from other sensors Range: 23 °F to 160 °F
Humidex	Sensor: Formula derived from other sensors Range: 0-50	**Dew Point Index**	Sensor: Formula derived from other sensors Range: 23 °F to 122 °F
Mold Risk Index	Sensor: Formula derived from other sensors Range: 0-3 Index		

Installation

Included Accessories	1x mounting plate, 1x installation kit, 1x T10 security torx screwdriver, 3x 7x mounting screws, 3x washers, 4x drywall anchors & 3x wing nut	**Mounting Options**	Horizontal & vertical for wall and ceiling mounts
Popular Install Locations	Server room closet (on ceiling or rack) Open office area (on ceiling) Closed rooms (on ceiling or on wall)		

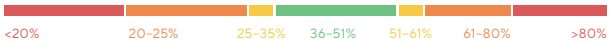
Reading Overview | Ambient Environment Indicators

Temperature



SV21 temperature measurements are accurate from -32°C – 45°C (-25°F – 113°F) for all sensors readings with the exception of CO2. CO2 readings are accurate down to -5°C – 45°C (23°F – 113°F) As with other data streams, users can customize temperature alerts if a space is kept at a temperature outside of the recommended green zone.

Relative Humidity



Relative humidity is the amount of moisture in the air compared to what the air can hold at that temperature.

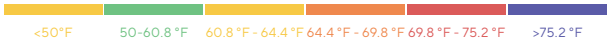
Heat Index

The heat index represents what the temperature feels like to the human body when relative humidity is combined with the temperature. It is derived from our existing temperature and humidity readings and uses the National Weather Service's heat index chart to calculate the reading value.

Humidex

Similar to the heat index and commonly used in Canada, Humidex indicates how hot it feels to the average person. It is calculated using a formula developed by Canadian meteorologists.

Dew Point Index



Dew point is the temperature at which air cools enough for water vapor to condense into dew or frost. Industries from transportation to agriculture often use this index to predict and mitigate risks from conditions like frost or fog.

Mold Risk Index

The Mold Risk Index assesses the likelihood of mold growth in confined, unventilated spaces based on temperature and humidity levels. Higher temperatures combined with elevated humidity create ideal conditions for mold spores to thrive, making these factors key indicators of potential mold growth.

Reading Overview | Ambient Environment Indicators

Carbon Dioxide (CO_2)

CO_2 measurements capture the absolute level of CO_2 in an environment. At levels of 800ppm or less, CO_2 is harmless. Between 800 and 2000ppm, CO_2 levels can be harmful to health, at levels above 2000ppm, CO_2 can be extremely harmful to human health.

Tamper Detection

Indicates if your device has been moved or tampered with.

Ordering Information

Air Quality Sensors Pricing

Model Number	Description	Cost (MSRP) USD
SV21-HW	SV21 Air Quality Sensor Hardware	$699

Air Quality Sensors Accessories Pricing

Model Number	Description	Cost (MSRP) USD
ACC-SV-MOUNT-1	Reinforced Sensor Mount	$89

Air Quality Cloud License Pricing (New/Capacity Increase)

Model Number	Description	Cost (MSRP) USD
LIC-SV-1Y-CAP	1-Year SV License, Capacity Increase	$249
LIC-SV-3Y-CAP	3-Year SV License, Capacity Increase	$599
LIC-SV-5Y-CAP	5-Year SV License, Capacity Increase	$999
LIC-SV-10Y-CAP	10-Year SV License, Capacity Increase	$1,999

Air Quality Cloud License Pricing (Renewal)

Model Number	Description	Cost (MSRP) USD
LIC-SV-1Y-RNW	1-Year SV License, Renewal	$249
LIC-SV-3Y-RNW	3-Year SV License, Renewal	$599
LIC-SV-5Y-RNW	5-Year SV License, Renewal	$999
LIC-SV-10Y-RNW	10-Year SV License, Renewal	$1,999