Real-Time Monitoring Capabilities in Multiunit Property Management

Author: Dan Parent, Co-Founder & COO, OneEvent Technologies, Inc.
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Monitoring & Disaster Prevention for Buildings & Units

Property managers have significant responsibilities when it comes to their tenants' safety, comfort and security. They meet these responsibilities by constantly being on call to troubleshoot or problem-solve a situation or peril having to do with either the building or with the tenants. Determining a reasonable solution to a problem, a root cause of an issue, or the safety system deactivation is oftentimes difficult, given the lack of available information. Property managers must also rely on word of mouth to even become aware of the concern. There is no substitute for professional, one-on-one contact with tenants; however, new technology provides property managers with real-time, room-specific information to better understand site dynamics and locate potential breakdowns in safety equipment. This makes reacting to issues quicker and far more precise. An increase in speed and sharpened accuracy directly affects the likelihood that their tenants will remain safer and more comfortable.

Most multiunit buildings offer very little security for the individual, tenant-occupied units. They also use moderately simple fire-detection devices. Smoke alarms react to smoke. When smoke alarms finally sound, potential emergencies are already in progress somewhere in the building. A property manager isn't immediately notified of the incident and, consequently, has no idea from where in the building the smoke is coming. Security systems are designed to protect the building's public spaces, but do very little to protect the tenants' residences. Not knowing where and when a fire or burglary is occurring costs property managers precious time to remedy the problem and ensure the safety of their tenants.

How OnePrevent™ Works

OneEvent's new OnePrevent system is a cloud-based software "solution" that continuously collects, integrates and analyzes sensory data about a location using permanent monitoring devices. By comparing data over time, these advanced technology solutions recognize normal occupancy and environmental "patterns" in any single location. Significant changes in these normal patterns can warn of trouble in advance; potential emergencies can be addressed proactively and averted. Simply put, the OnePrevent system puts a revolutionary fire and security panel in the pockets of both the tenant and the property manager, by communicating all events to their smartphone devices.

## Case Study: Holiday Inn Express, Verona, Wis.

Shortly before 2:40:00 p.m. November 6, 2016, a plastic water hose ruptured in the pool storage room at the Holiday Inn Express (HIE) located at 515 West Verona Avenue in Verona, Wis. The high-pressure, 82-degree water sprayed in a horizontal arc across the ceiling, landing on both a high-voltage electrical panel and on the pool water heater's exhaust pipes, which were extremely hot. Upon hitting the pipes, a massive amount of steam was

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immediately generated. The OET smoke alarm was not directly in the line of water spray, but rather about 6 feet away from the steam source and immediately sensed a change in the environment's obscuration level.

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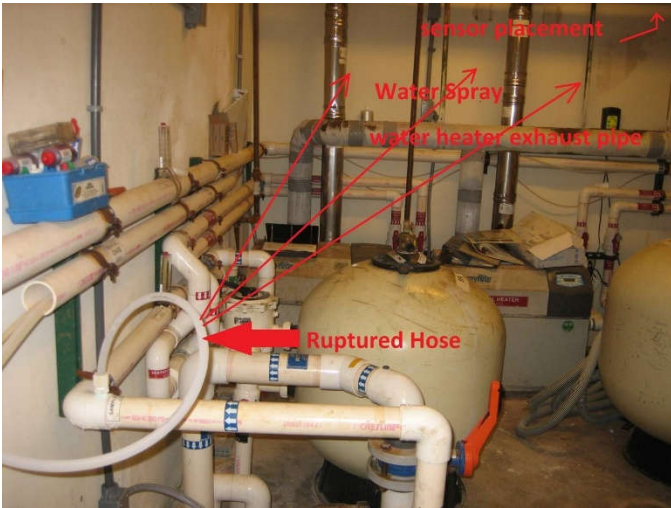
At 2:40:00 p.m., the steam set off a OnePrevent "*High risk of smoke detected: Pool. Please investigate.*" text alert to the hotel manager, indicating the obscuration level had elevated to levels not previously measured in that room. It is important to realize that no audible alarm had yet occurred. Somewhere between 2:53:00 and 2:54:00 p.m., the obscuration levels began to diminish, indicating the water had been turned off. By 3:11:39 p.m., OnePrevent sent a "*Smoke sensor being tampered: Pool.*" text warning, indicating someone had removed the smoke/heat alarm from the ceiling. In less than 15 minutes, the problem had been corrected.

The OnePrevent system successfully sent a text message at 2:40 p.m., notifying the offsite manager of an abnormal condition in the pool room way ahead of the audible alarm. The manager took immediate action by calling the front desk to alert them of the situation. The staff investigated the problem, and turned the water off before further damage could occur. OneEvent's post-event investigation found there was very little activity in the pool that day, making it impossible to predict how quickly the event would have been noticed if the OnePrevent system had not been installed. Thanks to OnePrevent, the water valve was shut off in less than 15 minutes, damage to the pool storage room was minimal, and no insurance claim was filed. This saved the hotel at least $10,000 in insurance premium deductible costs.
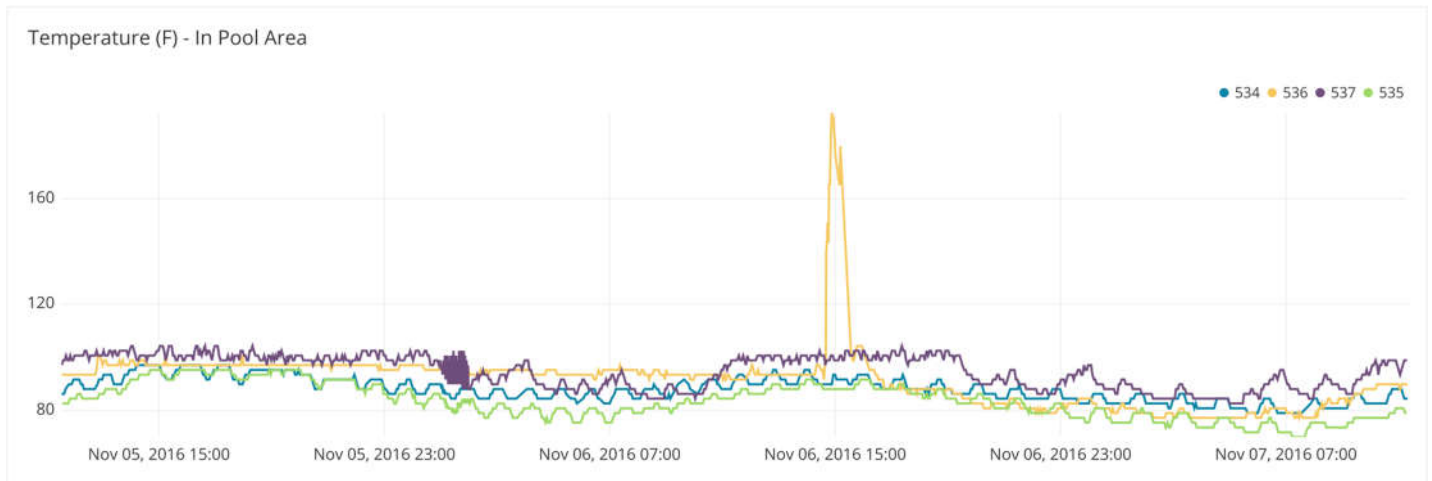
Technical Aspects of OnePrevent™

OneEvent™ Technologies' OnePrevent™ system is the first Software as a Service (SaaS) to accurately predict disastrous events prior to their realization. The OnePrevent ecosystem works with everyday sensor hardware, including smoke, motion, water, humidity and temperature, amongst others, to sense critical variations that lend themselves to potentially threatening events. The OneEvent gateway supports cloud-based analysis and communications, delivering sensor data to the OnePrevent mobile app. The OnePrevent system can predict threatening events while maintaining vigilance of regular environmental patterns. And because OnePrevent is a SaaS platform having the analytics in the cloud, new features and improvements happen automatically, meaning your system gets better, and smarter, with time.

Technical Specifications

- The first SaaS predictive environmental alert system
- Collects and analyzes OneEvent sensor data unique to each type of threat
- Reports and analyzes system health

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- Allows multiple security partitions
- Visual indicators for power, server & cell status
- Provides fire, security & environmental prediction based on multi-sensor criteria
- Communicates predictive threats in addition to escalated events
- Information for site, building, floors and rooms
- Can receive data from multiple gateways

Key Features

✓ Receives all system alarms, alerts, warning and faults on your mobile device
✓ Intuitive, informative app provides peace of mind by alerting of events and maintaining historical record in an intuitive, graphical format
✓ Users section allows the primary user to quickly and easily add and delete others to use the OnePrevent application
✓ Reporting via site, building, floors and rooms affords logical granularity to make meaningful analysis and response decisions
✓ System is built around a centralized gateway hub that is connected to smoke, heat and CO alarms, as well as presence, door/window, water and humidity sensors
✓ Uses of the system range from building fire and CO safety, security, water damage, mold conditions, freezer and refrigerator failures, etc.
✓ System is SaaS-based and all analytics are in the cloud, creating an ecosystem in which new features and capabilities are continuously being added

OnePrevent Data Store

OneEvent takes great pride in its ability to preserve every single data point, and analytic computation from all sensors and structures. This wealth of information makes it easy to reach back in time to determine exactly what happened and when. From water and fire events to burglary and sensor health, OneEvent manages all information and can make it available in a tabulated, intuitive format when needed.

The data received from sensors can be divided into two different categories: synchronous and asynchronous. Synchronous data is sent on a slow, periodic schedule by the data collection sensors. This saves on bandwidth and battery life. Data collection sensors include smoke/heat alarms, CO alarms and multifunction sensors. Data is sent every 180 seconds during quiescent conditions, and every four seconds during events. This increase in the data rate allows the analytics to be much more responsive when developing the predictive analysis. Every sensor also sends a keep-alive status every 70 seconds to ensure the radio frequency (RF) connection remains stable. Asynchronous data includes alarms, faults and occupancy data. Alarm data can come from water sensors, CO alarms and smoke/heat alarms, and are the highest priority and are dealt with immediately by the system backend. Fault data includes battery low alerts, tamper alerts, and general sensor faults. Motion sensors send out occupancy data whenever a person moves in front of the lenses. The motion sensor is designed in such a way that once it sees a person move, it won't report movement again for at least three minutes. This greatly reduces multiple false trips while the person is moving across its field of view.

Data Privacy & Security

OneEvent's data store is private, safe and secure. We provide privacy by design, and control access by default. OneEvent's customers own their data. OneEvent provides a Legal Terms and Conditions and Privacy Policy to all customers, granting permission by the account holder for OneEvent to collect the data on the customer's behalf. OneEvent then uses the customer's data to form analytical content. OneEvent's Use, Retention and Disclosure Limitation allows the company to retain the data indefinitely, and prevents disclosure to third party. OneEvent is

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held accountable through these signed agreements, and can only collect information as defined by the disclosed sensor type, and the duration of the agreement. OneEvent ensures the quality of the data by using only UL listed sensors, which are professionally installed by trained OneEvent dealers and installers. In addition, all sensors continually report their system health to ensure a reliable data stream. The customer maintains all the benefits of the learning algorithms, and can access their data, as well as assigning access to other account holders.

Sensor data is transferred over a secure, private cellular network and stored anonymously in a NoSQL, decentralized Amazon cloud server database. The data is strategically kept separate from the account information, which is stored on a Microsoft Azure SQL cloud server database. In this way, we maintain the highest level of privacy. The system uses 256 bit SSL encryption, passwords are stored as a cryptographic hash, and access is both password protected and IP restricted. OneEvent maintains compliance to internet security standards.

Alerts, Notifications and Learnings
The OnePrevent system is extremely scalable, and is architected around the concept of accounts having sites, buildings, floors and rooms. Each account owner designates users to become part of their OnePrevent echo system, and can assign building owners, property managers or building supervisors to various areas within their account. Each member of the account then receives alarms, alerts and maintenance messages according to their level of responsibilities. Messages are transmitted via SMS text, the mobile app and emails.

During the first 35 days, OnePrevent spends time learning the normal environment of the building. In this time, the account owner will receive weekly emails detailing what the system has learned, along with a summary of any alerts that may have occurred. At the end of the 35 days, the weekly reminder will slip to either a biweekly or monthly report.

Dealer, Installer and Customer Interfaces – Web & Mobile Apps
Future releases of the OnePrevent product will include web-based dashboards and admin portals designed to accommodate sites that have an unlimited number of accounts and/or tenants.

The Value of a 'Smart' Building System

OnePrevent provides the smartest fire safety alerts and alarms available anywhere by measuring not only what is happening on a single smoke alarm, but every smoke alarm, CO alarm, humidity sensor and motion sensor on that floor of the building. The data is measured and managed, which in real time creates a holistic gradient view of fire conditions as they continue to evolve and extinguish.

Incredible peace of mind is achieved when a CO alarm is installed, enabling all inhabitants to trust that their CO alarm is busy protecting everyone from the deadly invisible gas. But what about those lingering CO levels that will never cause a CO alarm to sound? Are they healthy? Have those CO levels existed for a long time? OneEvent's patented technology takes advantage of the CO sensor's data, providing the ability to learn over time what normal CO levels should be, and triggering alerts when non-normal values are measured. The mobile app can also plot data so you can quickly visualize events inside the structure, from anything like a broken chimney to a gas stove in need of repair.

OneEvent's smoke alarms are designed with an accurate temperature reading, and the OneEvent multi-function sensor has a very accurate humidity and temperature sensor. Building comfort is improved by exploring and learning about temperature and humidity discrepancies throughout the structure where smoke alarms or multifunction sensors are installed. In addition, the benefit of energy savings can also be realized through the proper management of building comfort. For instance, if a window is left open, an alert will be sent to your phone indicating there is a temperature or humidity discrepancy between the room with the open window and the

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remainder of the building. OneEvent's motion sensor data is aggregated with all data allowing the system to learn when buildings are normally occupied and when they're not, allowing for more accurate temperature zone settings. OneEvent's analytics also provides helpful tips on how to manage building heat when extreme outdoor conditions cause energy usage to skyrocket by aggregating outdoor weather information with the indoor conditions.

You will receive immediate water alerts when water is sensed in areas such as around water heaters, softeners, dishwashers, bathrooms and washing machines. The use of OneEvent's water sensor can also provide valuable data to OneEvent's algorithms to learn normal sump pump operation, or toilet flush cycles, and alert you ahead of potential water damage. Coupling these early alerts along with the knowledge of someone being inside the structure helps determine the urgency of the alerts for your convenience.

OneEvent's advanced cooler monitoring of freezers, refrigerators and food preparation lines can save businesses time and money. The OneEvent algorithms aggregate humidity, temperature, door status, and occupancy in and around the cooler to learn when the unit is being loaded and unloaded, and provide meaningful alerts when goods are at risk of becoming either too warm or too cold because of doors being left open, or failing pumps or declining refrigerant levels.

The dry contact switches on the OneEvent door/window sensor allow for remote monitoring of all your alarm devices in the structure. From septic tank monitoring to alarm panels, OnePrevent can help you keep pace with your existing alarm equipment.

The truly valuable part of the system is that its software as a service (SaaS). The OneEvent SaaS model means improvements are deployed almost instantaneously, so customers continuously receive new features, capabilities and updates with zero effort. The OneEvent SaaS solution is based on a multi-tenant architecture, which means a single version of the application, with a single configuration, is used for all customers. To support scalability, the application is installed on multiple machines, or servers.

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Appendix A – Technical Specifications

System Environment Specifications
- Sensor electronic and casing operating range: -30°C to 65°C (-22°F to 149°F)
- Gateway operating range: 0°C to 40°C (32°F to 104°F)

Battery Operating specifications

Battery and Manufacturer	Sensor Usage	Operating Range
CR123A Industrial, Panasonic	EiA660WOET, 2GIG-PIR4-433, IID-WTR2M-433	-40°C to 70°C (-40°F to 158°F)
CR2032 Lithium Coin Cell, Energizer	2GIG-DW14-433	-30°C to 60°C (-22°F to 140°F)
AAA Alkaline, Duracell	EiA207WOET	-20C°C to 54°C (-4°F to 130°F)
NiMH Rechargeable GP180AAH3TMXZ, GP	NOV-GW2G-433	0°C to 40°C (32°F to 104°F)

NOV-GW2G-433 Gateway Hub, PN#100013

The OneEvent™ multi-frequency gateway receives communications from OneEvent predictive sensors in the building environment. The unique radio receiver couples industry-leading reception technology to capture up to 10,000 square feet of sensor environment detection. The OneEvent gateway supports cloud-based analysis and communications by sending sensor data per the patented OnePrevent™ escalation method via cellular communications for redundant pathways in most structures. The OneEvent predictive analytic gateway operates on AC power with a four-hour battery backup.

Technical Specifications

- The first-ever UL 217-listed accessory (pending)
- Four hours of battery backup
- Enables cloud-based streaming & predictive analytics
- Patented sample-rate transmitter reception
- Visual indicators for power, cellular/Wi-Fi connection, data server connection, and sensor data traffic
- AC failure indication
- Tamper switch alerts when unauthorized removal of the gateway has occurred
- Auxiliary cellular antenna for areas having weak or intermittent signal
- Gateway installs in less than 15 minutes
- Wi-Fi access point mode for on-site diagnostics using mobile app
- Versatile design; multiple gateways can serve a common site, or a single gateway can server multiple sites
- Sophisticated design supervises all connections and automatically saves all data, which is re-transmitted when connection becomes lost, or intermittent

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- Fully capable to receive remote software updates — without requiring a truck role

Key Features

- ✓ Connects to the OneEvent cloud so the OnePrevent predictive analytics system can learn the environment's normal conditions and alert to changes that could lead to a disastrous event
- ✓ Built-in status lights provide visual indication of correct operation
- ✓ Cellular communicator provides excellent signal paths for OneEvent cloud streaming
- ✓ Internal backup battery powers the gateway while AC power is interrupted
- ✓ Access-point mode switch allows the installing technician access to internal performance metrics using a Wi-Fi connection between the gateway and their OneInstall mobile app
- ✓ OneEvent's patented analytic engine is supported through use of the gateway via 433Mhz and cellular communications

2Gig-PIR4-433 Occupancy Sensors, PN#100041

The OneEvent™ passive-infrared presence detector is a stable, reliable means of detecting occupant presence and unusual activity as an integral part of the OnePrevent™ system's analytics. The unit not only supplies triggers for partition security arming; it supports presence detection and location in the event of a fire alert, and provides valuable data to environmental prediction algorithms, key to the OnePrevent system. The unit has a detection range of 30' deep, 50' wide, has selectable sensitivity, and pet immunity of 33 lbs. or 55 lbs. The OneEvent presence detector uses a lithium-ion battery for long life and reliability. The tampered enclosure prevents circumvention of the detector's function. It also comes with a hinged wall mount for easy installation.

Technical Specifications

- Connects to the OnePrevent platform via the OneEvent Gateway
- Stable quad passive infrared detection
- 30'/9.1M x 50'/15.2M detection range
- Wireless signal range is 350 feet in open air
- Transmitter frequency is 433MHz
- Operating temperature range is 0°C to 49°C (32°F to 120°F)
- Selectable sensitivity & pet immunity to 55 lbs.
- Regulatory listings are ETL, FCC Part 15, Industry Canada
- Supports interior or perimeter security arming
- Supports occupancy analysis related to other environmental sensors
- Lithium-ion batteries
- Supervised communications share device status
- Tampered enclosure
- Comes with pivot mount accessory

Key Features

- ✓ Connects to the OneEvent cloud for the OneEvent predictive analytic platform to learn the environment's normal conditions and alert to aberrations that could lead to a disastrous event
- ✓ Detects presence of people in the environment for security and predictive environmental analytics in a range of 30 feet deep and 50 feet wide
- ✓ Wireless transmitter can report up to 300 feet away from gateway (line of site)

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✓ Flexible mounting methods including a hinged wall mount to accommodate various angles for excellent catch performance
✓ Lithium-ion battery provides long battery life more than one year

2Gig-DW14-433 Door & Window Sensors, PN# 100042

The OneEvent™ slim-line door/window transmitter detects perimeter breaches and unusual activity as an integral part of the OnePrevent system analytics. The unit not only supplies data for security arming; it also supports in/out detection in the event of an environmental alert, constant alerts for highly secure areas, and provides valuable data to the OnePrevent predictive algorithms. The unit uses two lithium-ion batteries for long life and reliability. The tampered enclosure precludes detector circumvention. The sensor also has a plug-in wiring harness for external dry contacts.

Technical Specifications

- Connects to the OnePrevent system via the OneEvent gateway
- Slim, unobtrusive design
- Allows connection to form dry contacts
- Wireless signal range is 350 feet in open air
- Transmitter frequency is 433MHz
- Operating temperature range is 0°C to 49°C (32°F to 120°F)
- Regulatory listings are FCC Part 15, Industry Canada
- 0 to 0.625-inch magnet gap range
- Supports interior or perimeter security arming
- Supports occupancy analysis related to other environmental sensors
- Two lithium-ion batteries for long life
- Supervised communications share device status
- Tampered enclosure

Key Features

✓ Connects to the OneEvent cloud for the OneEvent predictive analytic platform to learn the environments normal conditions and alert to changes that could lead to a disastrous event
✓ Detects entries and exits through doors and windows for security and predictive environmental analytics, providing referenced traffic/movement through the building space or between building partitions
✓ Affords alternate detection through its auxiliary contact wiring harness; may be connected to any external dry contact switch, such as a septic tank or fire alarm panel
✓ Wireless transmitter can report up to 350 feet away from gateway (line of sight)
✓ Easy mounting with accessory screws, magnet & hardware
✓ Lithium-ion batteries provide long battery life.

EiA660WOET Photoelectric Smoke & Heat Alarm, PN# 100019

The OneEvent™ smoke/heat alarm utilizes state-of-the-art photoelectric technology coupled with a fast-acting thermistor–based temperature sensing technology, offering excellent measurement of environmental temperatures, and detection of typical fires, including smoldering fires that other devices may only detect after a delayed period. The radio board interface allows the OneEvent technologies transmitter to share critical data with the OneEvent gateway for live predictive analysis, health checks, and mobile client notification. The OneEvent smoke/heat alarm is designed for easy, intuitive installation, commissioning, maintenance and daily end-user

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interface. Two CR123 batteries power the unit for over 10 years. The batteries are replaceable and the detector cannot be re-affixed to the base unless both batteries are installed. The smoke/heat alarm can be made tamperproof to prevent unauthorized removal of the alarm. The OneEvent smoke/heat alarms have a large center test button that allows for device testing.

Technical Specifications

- Highly reliable photoelectric technology allows for:
    - Fast alarm response to excessive levels of smoke
    - Continuous environmental obscuration measurements (dB/m)
- Thermistor-based temperature detection allows for:
    - Fast alarm response to absolute heat
    - Fast alarm response to heat rate-of-rise
    - Continuous environmental temperature measurements
- OneEvent proprietary transmitter radio
- Large function-test button checks horn circuit and can silence an alarm for up to 10 minutes
- Automatic battery status indication (sounder & transmit)
- LED alarm indication
- Easy-to-install mounting base
- Unique chamber design
- Regulatory listing UL 217 (UL 268 Ready), CAN/ULC S531, FCC Part 15, Industry Canada
- Smoke sensitivity 1.95% - 4% OBS/ft.
- Operating range 0°C to 40°C (32°F to 104°F)
- Humidity range 15% to 95% R.H. (noncondensing)
- Audible alarm >85dB(A) at 10ft. minimum
- Transmitter frequency is 433MHz
- Wireless signal range is 350' in open air
- Transmit interval is 180 sec non-alarm, 4 sec alarm
- Weight is 7 oz.
- Heat sensor accuracy is $\pm 1.0°C$ ($\pm 1.8°F$)
- Heat sensor fixed rating $59°C \pm 2.0°C$ ($138°F \pm 5°F$)
- Heat sensor rate of rise over 40°C is 8.3°C/min (104°F is 15°F/min)
- Health checks are automatically sent to OnePrevent with trouble message, and location of trouble if:
    - Smoke alarm is removed from mounting base
    - Gateway loses contact, and can no longer hear from the smoke alarm
    - Smoke alarm battery power is low
    - Smoke alarm reaches its end of life
    - Smoke alarm has too much dust contamination
    - Any other smoke alarm fault making it unsafe for use

Key Features

- ✓ Multiple sensor technology detects fire through smoke particle obscuration, absolute heat 59°C (138°F) and rate-of-rise heat elevations of 8.3°C/min (15°F/min) above 40°C (104°F).

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- ✓ The thermistor and photoelectric sensor constantly measures environmental temperatures and obscuration, transmitting them through the OneEvent Gateway, allowing OnePrevent analytics to detect potential freeze and out-of-range conditions for user notification.
- ✓ Built-in sounder provides an audible output of 85dB(A) at 10 ft. while in alarm condition.
- ✓ LED indicating light has a 48-second flash rate, verifying the device's operation and self-check performance
- ✓ Battery-mandatory base design prevents the alarm from being mounted without its batteries installed
- ✓ Center-mounted test button allows easy one-step testing while sounding the alarm
- ✓ OneEvent's transmitter communicates realtime data to the OneEvent gateway for user notification of events and predictive analysis, the unique benefit of the system. The system can detect and alerting to potential fire events in advance of most other alarms.

EiA207WOET CO/H2 Alarm, PN# 100029

The OneEvent™ CO alarm utilizes a state-of-the-art patented, CO sensor technology to accurately measure CO levels in the environmental, and alarm when CO levels have elevated to unsafe levels. The radio board interface allows the OneEvent technologies transmitter to share critical data with the OneEvent gateway for live predictive analysis, health checks, and mobile client notification. The predictive analysis provides the ability to alert someone if CO levels rise to levels not measured in the past. When used in conjunction with the OneEvent™ smoke/heat alarm, the OneEvent™ CO alarm provides meaningful data to identify potential fire threats early in the evolution of the fire. The OneEvent CO alarm can also be used to measure other cross contaminate gases in the environment, including hydrogen (H2), making it an early predictor of potential battery charging problems. The OneEvent CO alarm is designed for easy, intuitive installation, commissioning, maintenance and daily end-user interface. Two AAA batteries power the unit for over five years. The batteries are replaceable and the detector cannot be re-affixed to the base unless both batteries are installed. The CO alarm can be made tamperproof to prevent unauthorized removal of the alarm. The OneEvent CO alarms have a large test button that allows for device testing.

Key Features
- ✓ Proven electrochemical sensor (10-year life)
- ✓ Powered by two replaceable AAA batteries
- ✓ "End of life" audible and visual indication
- ✓ Tamper resist feature to avoid battery removal
- ✓ Easy-to-use, large test/hush button
- ✓ Pre-alarm indication gives early warning of CO
- ✓ Loud distinct alarm sound 85 dB(A) minimum at 10 feet
- ✓ Memory feature indicates if CO has been previously detected
- ✓ Power, alarm and fault indicator lights
- ✓ Five-year guarantee (limited)
- ✓ Highly reliable CO sensing technology allows for:
    - o Accurate response to excessive levels of CO
    - o Continuous environmental CO measurements (ppm)
- ✓ Health checks are automatically sent to OnePrevent with trouble message, and location of trouble if:
    - o CO alarm is removed from mounting base
    - o Gateway loses contact, and can no longer hear from the CO alarm
    - o CO alarm battery power is low
    - o CO alarm reaches its end of life
    - o Any other CO alarm fault making it unsafe for use

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Product Description

- ✓ The Ei207 Carbon Monoxide (CO) Alarm is supplied with replaceable AAA batteries.
- ✓ The alarm has a high-performance, proven electrochemical sensor to sense CO presence. The sensor is individually calibrated and tested in Carbon Monoxide (CO) gas to ensure accuracy.
- ✓ An easy to use test/hush button allows the user to check the alarm. This checks all aspects of the alarm (sensor, electronics, battery and sounder).
- ✓ The alarm has an "end of life" indicator (audible and visual) which will notify the user when the alarm needs replacing at the end of its 10-year operational life.
- ✓ The alarm has a twist on mounting base which has multiple fixing points so it can easily be secured to a ceiling or wall. The fixing screws are supplied with the alarm.
- ✓ OneEvent's transmitter communicates realtime data to the OneEvent gateway for user notification of events and predictive analysis, the unique benefit of the system. The system can detect and alerting to potential CO events far in advance of other alarms by notifying when CO levels become abnormal.

Technical Specifications

- Product life is 10 years
- Supply voltage is 2xAAA batteries which are user changeable
- Alarm horn is a piezoelectric, which sounds at 85dB(A) at 10 feet; modulated sound gives three rapid pulses followed by a half-second pause
- Operating temperature is -10°C to 40°C (14°F to 104°F)
- Storage temperature range is 0°C to 35°C (32°F to 95°F) in a dry area
- Relative humidity is 15% to 95% noncondensing
- The CO sensor is a proven electrochemical cell, 100% calibrated and tested with CO gas to ensure accuracy.
- Range of CO sensor is 0–1000 ppm
- Maximum overload of CO sensor is 5000 ppm
- Gas response time is <60 sec.
- Long term drift of CO sensor is <5% per year
- Repeatability of CO sensor is $\pm 5\%$
- Linearity of CO sensor is $<\pm 5\%$
- Cross sensitivity to other gases:
  - Hydrogen (H2) – 100 ppm H2 generates 20 ppm CO reading (5H2 x 1CO)
    Note: The H2 LEL alarm limit is 2%, or 20,000 ppm, which is equal to 4,000 ppm on the EiA207WOET scale.
  - Acetylene (C2H2) - 40 ppm C2H2 generates 80 ppm CO reading (1C2H2 x 2CO)
- The indicator lights indicate:
  - Power up and test – green
  - alarm – red
  - fault – amber
  - test/diagnostic – red, amber and green
- A memory feature records if a previous alarm threshold has been exceeded
- An audible sound will emit indicating the sensor end of life has been reached and should be replaced

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- Mounting and fixing is easy; a plate and mounting screws are supplied with a simple twist to power up the alarm.
- Dimensions are 4.7 in. x 4.1 in. x 1.8 in.
- Weight is 6.35 oz.
- Warranty is a five-year (limited) warranty
- Existing approval is ETL listed to UL 2034 (w/o radio board)
- Pending approvals are UL 2034/CSA 6.19-01

IID-WTR2M-433 Water Sensor, PN# 100153

The OneEvent™ water sensor is designed to send a signal to the OneEvent gateway if water is sensed at the capacitive measurement pins for greater than 15 seconds. The water sensor is designed with a 6.6-foot cable, allowing for a variety of installation locations. The OnePrevent system can take advantage of the water sensor in two different conditions: alert and operational. In the alert state, OnePrevent will immediately send a message to the owner's mobile device if water is sensed. This allows for areas around washing machines, dishwashers and water heaters to be completely protected. The other state is the operational state, and is used by the OneEvent analytics to learn normal operating conditions in and around water. When used in this state, the water sensor is placed in a location where water normally can come into contact with the water sensor. For example, the water sensor can be placed midway down a sump pump basin to learn how often the sump pump is filling, and how long the pump takes to remove the water from the basin. OnePrevent couples the pump's normal oscillation with outdoor rainfall to create a smart alert when the pump is taking too long to remove the water from the basin, allowing you to get help before the basement is flooded. The water sensor can also be used inside a toilet tank to learn how often a toilet is flushed, and to learn how long it takes for the basin to be refilled. In the case of a stuck open toilet, forcing all the water down the drain, an alert will be generated, providing significant savings on water bills and prevention of an overflowing toilet.

Technical Specifications

- Operating temperature is -15°C to 65°C (5°F to 149°F)
- Storage temperature is -25°C to 70°C (-13°F to °158F)
- Battery capacity is one 3V CR123A lithium, which is replaceable
- Expected battery life is five years when the sensor is triggered 20 times a day at 20°C to 30°C (68°F to 86°F) operating temperature
- Tamper notification is sent to OneEvent gateway when device is opened
- Operating frequency is 433 MHz, and transmits only
- RF protocol is proprietary to OneEvent
- Internal antenna
- RF range is 165 feet
- Color is white
- Sensor size is 1.85 in. x 0.45 in. x 0.78 in. (WxDxH)
- Sensor cable length is 6.6 feet, permanently attached
- Weight is 2.33 oz. including battery
- Complies with Part 15 of the FCC and IC rules (pending)

Key Features

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✓ Alert message sent to OneEvent gateway when water is continuously sensed for greater than 15 seconds, and continues until water is absent for greater than 15 seconds
✓ Provides significant water data to the OneEvent analytics
✓ Health checks are automatically sent to OneEvent gateway with trouble message, and location of trouble if:
  o Tamper/untamper notification immediately on removal/replacement of the rear transmitter cover
  o Low battery notification
  o Gateway loses contact, and can no longer hear from the water sensor

OET-MX2HT-433 Humidity & Temperature Sensor, PN# 100152

The OneEvent multifunction sensor utilizes Honeywell's state-of-the-art sensor IC technology, offering excellent measurement of environmental temperature and humidity. Its wide operating range and excellent stability make it suitable for harsh areas where accuracy is a must. The radio board interface allows the OneEvent transmitter to share all its data with the OneEvent gateway, providing state-of-the-art predictive analysis, health checks and mobile client notification. The OneEvent multi-function sensor has a rugged case, and has been designed for easy and intuitive installation, commissioning, maintenance and daily end-user interface. Two CR123 batteries power the unit for over 10 years. The batteries are replaceable, and the detector cannot be reaffixed to the base unless both batteries are installed. The multifunction sensor can be made tamperproof to prevent unauthorized removal of the alarm.

When used in coolers such as freezers, refrigerators and food make lines, the OneEvent multifunction sensor is used to understand normal operating temperatures, and alerts when conditions change. All data is stored to automate periodic maintenance, and provide unbeatable rationale of food storage conditions.

The sensor can be used in indoor pool areas to help monitor humidity and temperature ranges of not only the pool areas, but those adjacent, high-risk areas such as heater/mechanical rooms and pool chemical rooms. If the pool humidity begins to increase, it may indicate problems with the dehumidifier. Or if the mechanical room temperature unexpectedly drops, it may be time to call maintenance and have the air exchange grill checked.

Server rooms are particularly finicky to both abnormally elevated temperature and humidity levels. By providing your IT managers with the OnePrevent app on their mobile phone, they can get instant alerts when changes occur, and can even view plotted data to see what happened during the past day, week and/or month.

When used in conjunction with OneEvent smoke and CO alarms, and OneEvent occupancy sensors, the OneEvent multifunction sensor that is placed directly over the cooking area can quickly identify if a kitchen smoke alarm is due to water boiling, or if something is about to catch fire when left unattended.

Moisture can build up over time in basements, especially when the dehumidifier malfunctions or the tank is full. Freezing pipes are another area of concern in basement areas. The OneEvent analytics engine will monitor both the indoor and outdoor temperature, wind chill and humidity to create smart notifications if things aren't normal, and alert you before the peril has time to become a hazard.

Technical Specifications

- Accuracy is ±4.0 %RH, ±0.5°C (±0.9°F)
- Total error band (TEB) is ±5 %RH over a compensated range of 5°C to 50°C (41°F to 122°F) and 10 %RH to 90 %RH

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- Wide operating temperature range is -40°C to 85°C (-40°F to 185°F) and 10% to 90% RH, noncondensing
- Response time is <8 sec
- Temperature resolution is 10bit ±0.16°C (±0.29°F), humidity resolution is 10 bit (±0.10% RH)
- Industry-leading long-term stability is 1.2 %RH over five (5) years
- Transmitter frequency is 433MHz
- Wireless signal range is 350' in open air
- Temperature transmit interval is 180 secs in steady state, and automatically switches to 4 secs when the temperature changes exceeds ±0.2°C/4 secs (±0.36°F/4 secs)
- Humidity transmit interval is 180 secs in steady state, and automatically changes to 4 secs when the humidity change exceeds ±3.5 %RH/4 secs
- Weight is 7 oz.
- Complies with Part 15 of the FCC and IC rules (pending)

Key Features

- ✓ Two CR123 batteries power the unit for over 10 years
- ✓ Wide operating range, making it suitable for freezers, refrigerators, pools, furnace rooms, garages and basements
- ✓ The OneEvent multi-function sensor is built on Honeywell HumidIcon™ Digital Humidity/Temperature Sensor
- ✓ Dual sensing capability, which includes relative humidity (RH) and temperature sensing all combined in the same package
- ✓ These sensors provide an accuracy level of ±4.0 %RH and a temperature accuracy level of ±0.5°C (±0.9°F)
- ✓ The %RH sensor uses a laser trimmed, thermoset polymer capacitive sensing element, providing resistance to most application hazards such as condensation, dust, dirt, oils, and common environmental chemicals, which helps provide industry-leading stability and reliability
- ✓ The batteries are customer replaceable
- ✓ The sensor can be made tamperproof to prevent unauthorized removal of the alarm
- ✓ Sensor sends data to the OneEvent gateway every 180 secs under normal conditions, and once every 4 secs when a large change in either humidity or temperature is measured
- ✓ Health checks are automatically sent to OneEvent gateway with trouble message, and location of trouble if:
  - o Tamper notification
  - o Low battery notification
  - o Gateway loses contact, and can no longer hear from the water sensor

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