

The only available technology for hotels and apartments to detect tobacco and marijuana smoke

24/7 monitoring | Instant detection | Cleaner rooms

A Clean, Healthy, and Safe Stay

You can now put a stop to unauthorized smoking early on and prevent further damage, avoiding unrentable and extensively cleaned rooms. This also helps you avoid inconvenience and complaints from other guests. With the FreshAir smoking violations report, you no longer need to worry about recovering cleaning costs.



De FreshAir detector

Green Bull Company offers hoteliers and property managers the solution for a cleaner, healthier, and safer environment for guests and residents with the American-developed technology by [FreshAir detector](#)



Unique Sensor

Unlike conventional smoke detectors that use light or radiation to detect general particles (dust, smoke, steam, etc.), the FreshAir detector is the only technology to detect specific molecules in tobacco and marijuana smoke.



Wifi

FreshAir's detectors connect to your building's Wi-Fi to communicate 24/7 with the FreshAir monitoring platform.

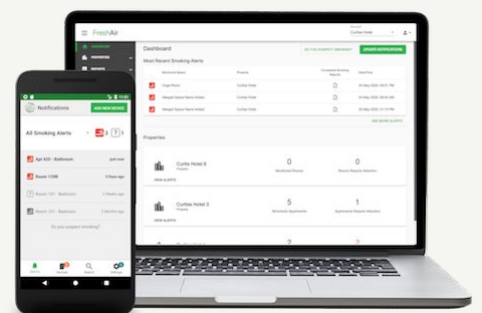


Instant Notification

When smoking is detected in the room, FreshAir sends an immediate alert via email, computer, desktop, and/or mobile phone push notification to users on your account.

We assist you in enforcing the smoking ban

Enhance guest satisfaction with cleaner rooms



The current **situation**

According to a large survey in the US, it was found that in over 10% of hotel rooms, smoking occurs at least once a month (internal survey FreshAir, 2022). Hoteliers in the Netherlands confirm these numbers.



Identifying the specific room where smoking occurs can be challenging since the smell of smoke spreads quickly. Moreover, housekeeping may discover that smoking has taken place after the guest has already checked out.



Cleaning third-hand smoke costs at least 2.5 times more than regular cleaning expenses. Third-hand smoke contains some of the same harmful substances as cigarette smoke.



Rooms where smoking has occurred are often not rentable the next day, resulting in revenue loss.



The ideal **situation**

The FreshAir FAS2.0 monitors the room 24/7 and sends an immediate notification in case of a smoking incident via email, computer, desktop, and/or mobile phone push notification to users on your account.

Your staff will be aware of the room where smoking occurs and can take action to prevent further damage.

We prevent inconvenience and complaints from other guests, providing cleaner, healthier, and safer rooms for optimal guest satisfaction.

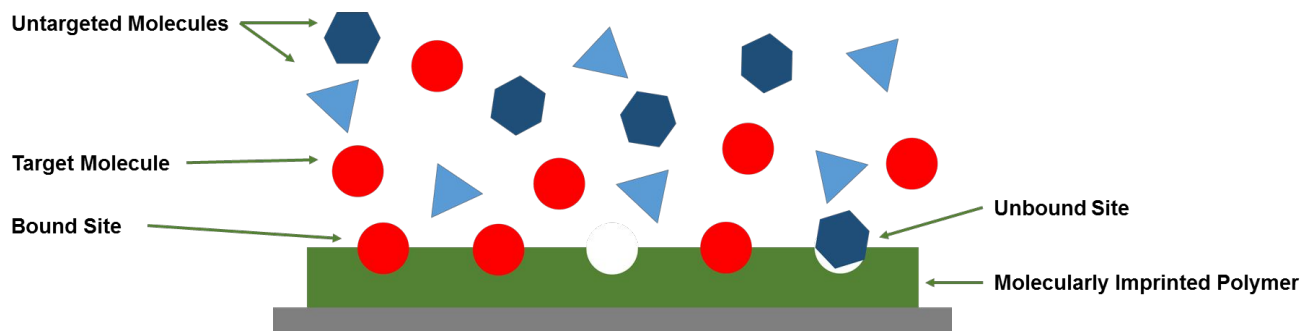
By charging cleaning costs, the expenses for cleaning and your investment in FreshAir detectors are more than fully covered.

This sensor makes the difference

The patented PolySens® sensors by FreshAir are based on over 20 years of research and development by founder Joe BelBruno, a chemistry professor at Dartmouth College, New Hampshire, United States.

How does the sensor work?

The science behind the smoke sensor



Receptors*

The sensors function in the same way as biological receptors in the body—proteins capable of binding to a specific molecule.

Highly sensitive

The sensors are highly sensitive and specific, binding only to target molecules present in tobacco smoke and marijuana smoke.

Automatic reset

The sensors reset after smoke detection to enable continuous monitoring.

The sensor will not respond, unlike conventional smoke detectors, to shower steam, dust, or smoke from fires.

FreshAir FAS2.0

Dimensions:

Length: 14 cm

Height: 5.4 cm

Width: 9.5 cm

Weight: 201 grams



Installation and fastening to a fixed power point on a wall or ceiling - max. 240V @ 50Hz AC



Notifications can be sent via email, a desktop pop-up, and/or a push notification to the mobile phone



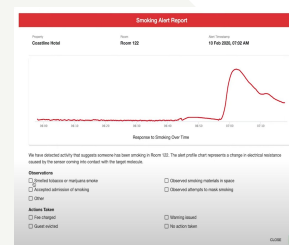
Connects via Wi-Fi to the FreshAir online dashboard to monitor an open space of approximately 45 m²



Each smoke detection is recorded with a timestamp in a scientific report on your online dashboard

Operation of the FreshAir System

- As someone is smoking, the sensor in the detector recognizes specific molecules (tobacco and marijuana).
- The detection of smoking is transmitted to the FreshAir system (dashboard) via the hotel's WiFi network.
- Based on this detection, the system assesses whether it is indeed a smoking incident.
- If it is a smoking incident, a **'Smoking Alert'** is sent out.
- This notification is sent as a push message to the mobile phone (and/or desktop of the reception) of every user of the system, including a graphical representation of the smoking incident with a timestamped, scientific report.



Additional information FreshAir detector



Smoking in the hotel room

- In more than 10% of hotel rooms, smoking occurs at least once a month (internal survey by FreshAir, 2022). Hoteliers in the Netherlands confirm these numbers.
- Smoking causes damage in the following ways;
 - The need to remove third-hand smoke (extra cleaning costs): Harmful substances adhere to floors, furniture, and permeate curtains and other fabrics
 - Smoke-infested rooms become 'out of order' due to their unpleasant smell
 - Complaints from other guests leading to negative reviews
 - Exposure of employees and other guests to second-hand smoke
 - Identifying the specific room where smoking occurred (smoke smell in the corridor) is very challenging
 - Housekeeping often reports smoking after the guest has already checked out.

Purchase

- The detectors need to be purchased
- The initial agreement is for a minimum of 36 months
- The detectors can be installed either by the hotel itself or by GBC
- Each detector is always associated with a subscription plan (price depends on the quantity), and the subscription begins after the installation of the respective detector
- Upon approval, a "confirmation of operation" will always be conducted, which involves installing 6 detectors for WiFi and dashboard connection

The content of the subscription includes

- PolySens® sensors for replacement
- Online and mobile application dashboards with time-stamped reporting
- Access and training on the functioning of the system provided for multiple users
- Software updates available via Wi-Fi
- Yearly training for your staff on "how to handle a smoking guest."

The Dashboard

- The detector sends an immediate notification to the dashboard as soon as someone starts smoking
- Each smoke detection is recorded with a time-stamped scientific report on the online dashboard
- Notifications can be sent via email, a desktop pop-up, and/or a push notification to the mobile phone, reaching as many employees as desired
- Employees can add additional findings, actions, and/or notes to the records

The hotel benefits

- Early Unauthorized Smoking Detection: Prevents unauthorized smoking before it becomes a major issue;
 - Avoidance of Discomfort for Non-Smoking Guests: Minimizes inconvenience for the majority of non-smoking guests (approximately 70%) by maintaining a smoke-free environment
 - Reduced Cleaning Costs: By significantly reducing the amount of smoke odor and damage, the hotel incurs fewer extra cleaning expenses
 - No Room Downtime: Rooms are not marked as 'out of order' due to smoke infestation, preventing potential revenue loss
 - Enhanced Guest Experience: The hotel and rooms will have a fresher ambiance, leading to increased guest satisfaction
 - Fire Risk Prevention: Eliminates the risk of fires caused by forgotten cigarettes.
- Evidence: Time-stamped scientific reports provide irrefutable evidence of smoking incidents, allowing for clear documentation and justification of cleaning costs.
- Charging Cleaning Costs. By imposing cleaning costs on smokers (also known as a smoking fine), the expenses for the detectors are more than covered, and **additional revenue** is generated.

Additional Information on FreshAir Detector - Technical

Dimensions & Weight

Length: 14 cm
Width: 9.5 cm

Depth: 3.2 cm
Weight: 201 grams

Installation and Power Requirements

Installation and securing to a fixed power point on wall or ceiling - max. 240V @ 50Hz AC

Operating Conditions

The device is exclusively designed for indoor use and should not be installed in locations where the conditions exceed the following ranges:

- Ambient temperature range: 32° F (0° C) to 104° F (40° C)
- Humidity range: 20% RH to 80% RH (non-condensing)

Requirements

Wi-Fi, an Android or iOS phone or tablet, & a FreshAir customer portal are required for installation, monitoring, & email/desktop/mobile notifications.

Router

IEEE 802.11 b/g/n
2.4 GHz Wi-Fi band
DHCP services

Firewall Settings

TCP/IPv4 communication on ports 1883 & 8883 (15 MB per day)

Supported Security Modes

WPA/WPA2 security, Open security (recommendation: without captive portal)

FreshAir devices cannot independently bypass a captive portal. If your Wi-Fi network has a captive portal for logging in and/or accepting terms of use, we advise creating a separate SSID for FreshAir devices that does not have a captive portal, or the devices should be placed on Whitelist rules.

Data Usage

Each detector transmits approximately 500 kB per day (about 15 MB per month)

Signal Strength

Greater than or equal to -70 dBm (for optimal operation)

Energy Consumption

The average energy consumption is 0.75 W, approximately 1% of the energy used by a traditional 75W incandescent light bulb