FreshAir

Scientific Proof

Eliminate false alarms and charge with confidence.

Accurate detection of smoking is essential to your guest experience and hotel operations. With FreshAir Sensor, properties and guests are guaranteed trust and accuracy with the only sensor technology that specifically detects molecules in tobacco and marijuana smoke.

FreshAir Smoking Alerts certify scientific proof of smoking. Trust the only sensor that actually detects smoking and ignores anything else. It is chemistry lab tested, hotel market validated, and monitored in real-time for certified certainty.
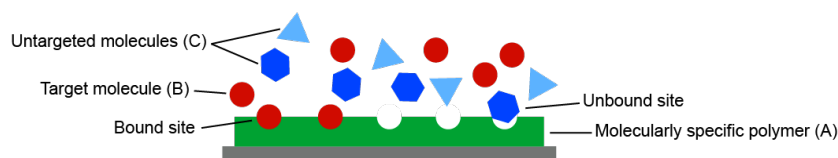
The Only Sensor Technology for Smoking

Our patented, proprietary sensors are the only technology that specifically detects tobacco and marijuana smoke. Unlike off-the-shelf particle, optical, and VOC detectors, only tobacco and marijuana molecules trigger FreshAir Smoking Alerts – not incense, steam, burning foods, candles, dust, or anything else.

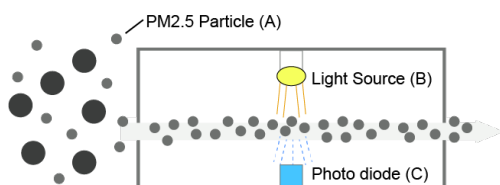|	Tobacco	Marijuana	Incense	Candles	Cooking	Dust	Steam	
FreshAir	✅	✅						Patented sensors for molecules in tobacco and marijuana smoke
Other	❓	❓	❗	❗	❗	❗	❗	Generic, off-the-shelf, non-specific optical, particle, and/or VOC detector

✅ Accurate, indisputable smoking alert with molecularly specific sensors

❓ Questionable smoking alert due to non-specific particle detector

❗ False positive smoking alert due to non-specific particle detector

OURS: Molecular Sensors for Smoking

Untargeted molecules (C)
Target molecule (B)
Bound site
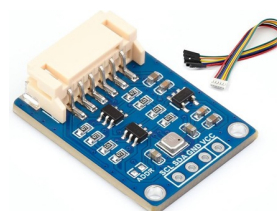Unbound site
Molecularly specific polymer (A)

Molecularly specific polymer (A) bonds only with target tobacco and/or marijuana molecules (B) while ignoring any other type of non-targeted molecule (C). Smoking Alerts are triggered only by tobacco and/or marijuana molecules.

THEIRS: Generic Particle Detector and/or VOC Detector

PM2.5 Particle (A)
Light Source (B)
Photo diode (C)

Particulates of a certain size (A) pass through the opening and flow between the light source (B) and the photo diode (C) which measure the concentration of particles. The detector does not distinguish between tobacco/marijuana smoke and other common particulates.

A generic, off-the-shelf VOC (Volatile Organic Compound) detector component like this is $26 on Amazon. Alarms can be triggered by body spray, glue, paint, perfume, and many other particles. NOT specific for tobacco/marijuana smoke.

Lab Tested, Market Validated

Produced and tested in our New Hampshire laboratories, FreshAir Smoking Sensors undergo extensive testing for all possible scenarios and conditions.

In fact, we have completed over one million live, physical tests in our custom testing chamber (built to the size of an average hotel room) for accuracy and durability.

Our patented sensors are published in peer-reviewed scientific journals, such as "Detection of secondhand cigarette smoke via nicotine using conductive polymer films" in *The Journal of Nicotine and Tobacco Research.*

Hoteliers and property managers across the country have trusted our sensors for more than seven years and tens of millions of monitored room nights.

Certified Certainty

Our Molecular Monitoring tracks sensor data in real-time and verifies all parameters for a smoking incident. FreshAir Smoking Alerts are sent to properties only when all parameters are confirmed along with molecular evidence specific to smoking.

When a Smoking Alert is sent, we are 100% certain smoking has occurred. We have court cases and chargeback reversals to prove it.

Accuracy Matters

Eliminate False Alarms
Trust the right lab-tested, market-validated technology — combined with real-time monitoring — to eliminate false alarms.

Protect Your Reputation
Protect your brand and online reputation from illegitimate smoking charges, angry guests, and poor reviews.

Charge With Confidence
Ensure every smoking violation charge is indisputable and accurate and eliminate chargebacks with court-proven molecular evidence.

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