

DETECT SMOKE AND IAQ RISKS SOONER

An entirely new way to protect your building and the people inside it: Proactive life-safety detection provides earlier warnings of both smoke and air quality, in a single sensor

VESDA® AIR
Smoke and Air-Quality
Detection

Honeywell

VESDA AIR SMOKE AND AIR DETECTION

Indoor air quality (IAQ) is the foundation of a healthier building, with proven benefits to occupant well-being, productivity, and performance.¹ And smoke detection is the bedrock of fire safety.

Now you can optimize the responsiveness and accuracy of building safety, air quality, and energy efficiency with a new type of system that gives you far earlier warning of smoke along with precise insights into 6 critical IAQ parameters.

ACTIVE VS. PASSIVE DETECTION

Traditional forms of monitoring smoke and air are passive – air currents must waft over a sensor before it can detect a problem.

So when we invented the aspirating smoke detector, it changed fire safety: Our “very early smoke detection apparatus” (VESDA®) proactively pulls air into tiny tubes to test it, pinpointing trace amounts of smoke long before passive sensing.

THE INDUSTRY’S EARLIEST WARNING OF FIRE

VESDA sensors continuously sample the air to detect smoke, even at minute levels, before a fire has time to escalate. The sensor gives multi-level warnings using a wide range of sensitivity that does not degrade or change over time.

FIRST OF ITS KIND FOR AIR QUALITY

Now we’ve extended VESDA technology to provide early detection of 6 critical IAQ parameters:

- VOCs: volatile organic compounds
- PM 1.0: particulate matter, with very fine precision of 1 micron and larger
- CO: carbon monoxide
- CO₂: carbon dioxide
- Humidity
- Temperature

Just as active sensing changed fire safety, active IAQ sensing changes how building air quality is managed – enabling building operators or automated systems to quickly react to concerns before they escalate into problems.



1 – Harvard T. H. Chan School of Public Health. “Healthy’ buildings can improve workers’ performance,” Harvard University, 16 March 2017. Accessed 03 May 2022: <https://www.hsph.harvard.edu/news/hsph-in-the-news/healthy-buildings-can-improve-workers-performance/>

VISUALIZE YOUR DATA TO SEE RESULTS

VESDA AIR data is delivered to a dashboard that translates it into clear visual analysis of your real-time status and key performance indicators (KPIs).

This data also easily integrates into your building management system (BMS) for use with HVAC and life-safety systems.

OPTIMIZE ENERGY USE

Because VESDA AIR detection is faster and more precise than other sensors, it can provide better data to your BMS.

This can improve energy-saving automation such as multi-parameter demand-controlled ventilation (DCV), giving your HVAC system much earlier guidance on when to start and stop so that it doesn't run longer than needed.

A UNIQUE ZERO-CALIBRATION CARTRIDGE

Active sensing isn't the only new idea that VESDA brings to building safety: The sensor also uses a plug-and-play IAQ cartridge that snaps into place like a printer's inkjet cartridge.

This convenience helps reduce your cost of maintenance and ownership, and minimizes waste.

Snap-in simplicity saves maintenance

To maintain accurate data – and proper ventilation – traditional sensors must be regularly calibrated. And this can become costly and time consuming, particularly if a service call is needed.

By contrast, VESDA AIR cartridges can be replaced by your staff in moments without special training or tools.



NEW CONSTRUCTION AND EXISTING BUILDINGS

VESDA AIR helps you protect people, property, and business continuity by combining high-quality fire safety and IAQ monitoring in one system.

This dramatically reduces costs for installation, material, labor, and maintenance compared to installing and maintaining separate systems – making it scalable and cost-effective for any building.

In buildings that already have fully functional smoke detection, a smokeless IAQ-only version can provide high-precision air-quality data.

Don't wait to find out what's in the air

VESDA® AIR smoke and air-quality detection

Buildings.Honeywell.com/us/en/lp/vesda_air

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