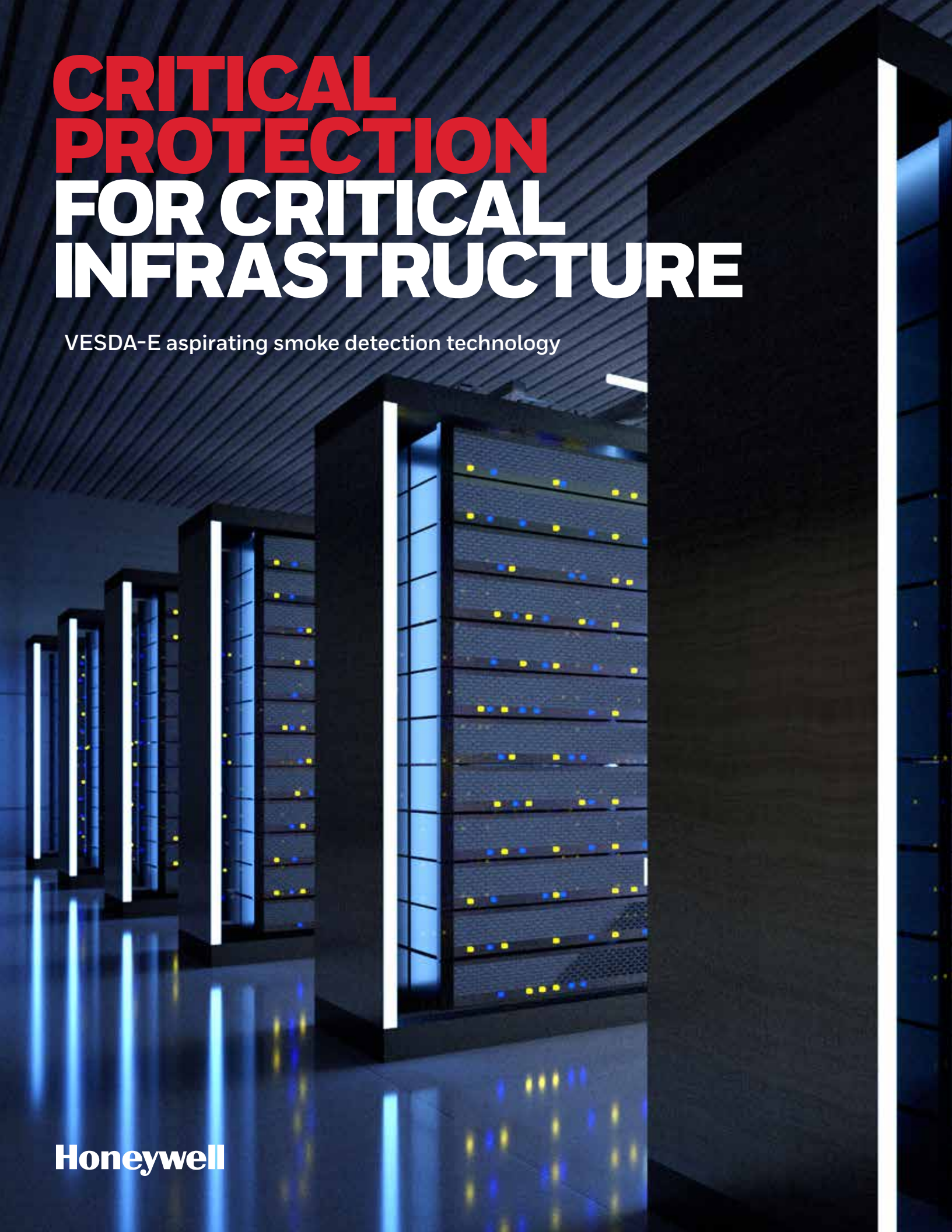
# CRITICAL PROTECTION FOR CRITICAL INFRASTRUCTURE

VESDA-E aspirating smoke detection technology



Honeywell

# VESDA-E
# ASPIRATING SMOKE DETECTION TECHNOLOGY

**Since pioneering Aspirating Smoke Detection (ASD) technology nearly 30 years ago, VESDA has been recognized as the best in the world, protecting personnel, irreplaceable assets and mission critical infrastructure in the world's most iconic locations.**

VESDA-E is the next-generation of ASD technology, featuring multiple innovative capabilities across the new portfolio that delivers a new level of customer experience:

- VESDA Smoke+, offers increased sensitivity – up to 15 times greater than VESDA VLP, at least three times better dust rejection, up to twice the longevity while maintaining consistent sensitivity over time and up to 8% less power consumption per unit area
- VESDA Flex, future proof expandability for maximum flexibility using, StaX Hardware expansion modules that easily bolt onto the VESDA-E detector to add additional capabilities
- VESDA-E VEA introduces pinpoint addressability to deliver situational awareness to improve response time and efficiency for up to 40 locations
- VESDA Connect, provides extensive connectivity options including Ethernet, Wi-Fi, USB, VESDAnet and relays, to reduce installation, commissioning, monitoring and maintenance costs
- VESDA TCO, reduces the Total Cost of Ownership (TCO) through Capex value, Opex savings, Plug'n'Play installation, design-less pipe and microbore tube networks, vast monitoring options and backwards compatibility. With VESDA-E you can reduce TCO by up to 15% for non-addressable products and up to 60% for the point addressable products

**VESDA-E is the most advanced, reliable, and flexible ASD system ever produced.**

## HOW VESDA-E VEU/VEP WORKS

Air is continually drawn from the protected area through the air sampling pipe network and into the detector by a high efficiency aspirator. The air sampling pipe network can contain up to four pipes.

The air from each sampling pipe passes through a flow sensor and then a sample of the air is drawn into the Flair detection chamber via the sampling module, after first passing through the filter.

An additional filter provides clean air to protect the optical surfaces inside the detection chamber from contamination.

The Flair™ detection chamber uses CMOS imaging, multi-directional light scattering and sophisticated algorithms for smoke detection and particle type characterization. If the detected smoke is higher than the set alarm thresholds it is reported as an Alert, Action, Fire1 or Fire2 alarm condition. Air is exhausted from the detector and may be vented back into the protected zone. Alarms can be signaled via Relays and VESDAnet. Ethernet and Wi-Fi can be used for configuration and secondary monitoring, and a USB interface is provided for initial setup. A series of LEDs display Alarm, Trouble, Disable and detector power on status. A button allows the user to Reset or Disable the detector. In addition, an optional 3.5" LCD display shows the detector status, including smoke level and a smoke level bar graph, alarm thresholds, trouble status, % airflow level, normalization status and filter life used.

## HOW VESDA-E VES WORKS

VES offers Sector (Pipe) Addressability coupled with the latest FLAIR detection technology that delivers consistent performance over time and absolute calibration.

The VES detector draws air from all sectors in use and if the smoke level reaches the Adaptive Scan Threshold, it initiates a Fast Scan of each sector to identify which sector is carrying smoke.

The first sector to reach the Alert Level is designated as the First Alarm Sector (FAS) and this sector is signaled to the User (and can be connected to FACP as pre-alarm). If two or more sectors reach the Alert level then, the sector with the highest smoke concentration is designated as the First Alarm Sector (FAS). Once FAS is identified, the VES continues to monitor all sectors to track fire growth and ultimately report Sector Fire Alarm to the panel.

# THE SIX REASONS FOR VESDA-E

## 1. VESDA SMOKE+

VESDA Smoke+ capitalizes on the patented Flair Detection Technology centered in the VESDA-E detection chamber used in VEU and VEP. The Flair Detection Technology offers increased sensitivity – up to 15 times greater than VESDA VLP, at least three times better dust rejection, up to twice the longevity while maintaining consistent sensitivity over time.

## 2. VESDA FLEX

VESDA Flex provides future-proof expandability for maximum flexibility. StaX Hardware expansion modules integrate with the VESDA-E VEU and VEP detectors to provide additional capabilities including integrated Power Supply, and Auto Pipe Clean.

## 3. VESDA SECTOR ADDRESSABILITY

Enabling a single fire zone to be divided into four separate sectors (areas) allows users to locate the source of smoke more quickly (smaller search area) while providing real-time detection by sector to monitor fire growth.

VESDA provides four individually configurable alarm levels (Alert, Action, Fire 1 and Fire 2) for each sector allowing flexible application in different environments.

VESDA is more cost effective than a “4 detector” approach for both installation and maintenance.

## 4. VESDA PINPOINT ADDRESSABILITY

VESDA-E VEA pinpoint addressability provides situational awareness to improve response time, efficiency and effectiveness for up to 40 locations. VESDA-E VEA provides reliable early warning with minimum nuisance alarms, centralized maintenance with built-in blow back capability, and full system integrity check.

## 5. VESDA CONNECT

VESDA Connect provides flexible networking and programming capabilities that reduce installation, commissioning, monitoring and maintenance costs through extensive connectivity options and remote diagnostics tools including Ethernet, Wi-Fi, USB, VESDAnet and Relays.

## 6. VESDA TCO

VESDA-E improves CapEx value through higher sensitivity and longer pipe runs resulting in greater coverage area for VEU, VEP and VES detectors and through flexible microbore tube network for VEA. It also reduces OpEx costs due to accessible and centralized maintenance, field replaceable components and full system integrity monitoring for VEA.

**For more information**
https://hwll.co/advanced-detection

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