xtralis®

VESDA

COMMERCIAL BUILDINGS

VESDA PROTECTING LIFE SAFETY, SERVICE CONTINUITY AND HIGH VALUE ASSETS

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THE SHORTCOMINGS OF CONVENTIONAL SYSTEMS ARE OBVIOUS

CHALLENGES FACED

Assured Performance

Risk of tampering or misuse is a challenge for conventional smoke detectors. In environments with high flow such as server room and large, open spaces, smoke gets diluted easily and is not detected by passive conventional smoke detectors.

Aesthetics

Many modern building complexes and executive office interiors have their aesthetics compromised by the presence of conventional point (spot) smoke detectors. Architects are looking for alternatives which can provide discreet or invisible detection.

Access

Maintenance of conventional smoke detectors in large commercial and industrial buildings is often difficult and expensive where access to the detector is regulated and complicated by hard to access areas.

Vandalism and Nuisance Alarms

Where conventional detectors are placed in public spaces they are obvious and recognizable. They get vandalized and are subject to mischief causing nuisance alarms, both at great cost to service continuity and maintenance budgets.

Asset Protection

Loss of precious possessions from smoke and fire damage can be enormous and difficult to prevent without early warning detection. Water released by any sprinklers might control a fire for the benefit of a building structure but would most likely destroy occupier assets. Costs and delays for clean up of smoke and water damage can be massive.

Life Safety and Environmental Quality

Reducing the risk of injury and loss of life from smoke inhalation requires a dependable system that provides local annunciation and remote indication to first responders. Improving the quality of the air within the occupied environment requires more sophisticated sampling technologies than are commonly available.

VESDA SOLUTIONS

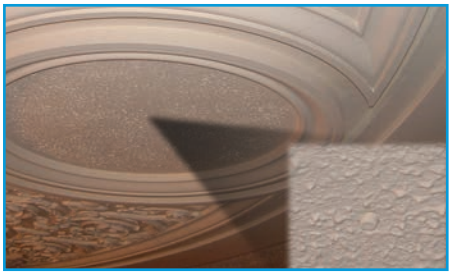
Assured Performance

VESDA ASD detectors actively draw air samples to a central detector for analysis and constantly monitor the airflow to ensure reliable sampling. Any tampering with the pipe network or restriction on the airflow raises a fault that can be indicated locally to occupants or centrally to maintenance staff. Since the incipient smoke is most likely to travel with the airflow, positioning VESDA pipework at the return air grille of the AHU (Air Handling Unit) ensures that any fire event generated in the environment is identified at the earliest stage.

Aesthetics

The VESDA family of Air-sampling Smoke Detectors (ASD) sample smoke through piping that can be easily installed and concealed. In properties with ornate ceilings the microbore sampling pipe or discreet sampling points can be installed without either damaging or disfiguring the building structure.

All that can be seen of this high-tech smoke and gas detection system is an unobtrusive capillary tube or fitting painted to match the decor (as shown below) or a low profile stainless steel sampling point.



Access

Air-sampling smoke detectors can be located outside of the protected space, allowing convenient servicing of the system without necessarily requiring access or interruption.

Vandalism and Nuisance Alarms

VESDA detectors provide multiple levels of alarm to provide time to respond to an event with the appropriate level of urgency and the minimum disruption. Very early warning alarms can alert facility management staff or occupiers to respond before brigade or emergency services are involved. Rugged vandalism-proof sampling points are available for high-traffic and high-risk public spaces.

Asset Protection

The very high sensitivity of VESDA detectors (typically 1000 times more sensitive than conventional detectors) can provide time for investigation of the earliest signs of incipient fire, before smoke is even visible. Risks of flaming fire and large volumes of smoke can often be completely avoided and actuation of suppression systems avoided. Should suppression be required, VESDA solutions provide the most reliable detection of high levels of smoke.

Life Safety and Environmental Quality

The very early warning capabilities of VESDA detectors allows monitoring for very low levels of smoke, often seen in smoldering fires and below levels known to be toxic or unhealthy.

Combined with a VESDA ASD system, the latest VESDA Sensepoint XCL system replaces multiple spot detectors with a single system that reliably detects a wide range of harmful gases while monitoring air-quality levels.

WHY USE A VESDA SYSTEM?

When selecting an aspirating smoke detection system for commercial buildings, consider.

Look for	Why?	What VESDA ffers
The highest sensitivity	To achieve the earliest possible warning of a fire	VESDA can detect smoke at 0.005% obscuration per metre
Wide sensitivity range	So that detection levels can be set to suit the environment, avoiding false alarms, and allowing appropriate responses throughout the life-cycle of a fire	VESDA detectors have a sensitivity range of 0.005%–20% obscuration/m to suit diverse environments
Multiple programmable alarm thresholds	So that the response can be appropriate for the stage of the fire, from 'Investigate' at the first alarm through to 'Activate smoke exhaust system' or 'Release suppression' at the fourth alarm level	VESDA has 4 programmable alarm levels for intelligent responsive actions
Event log and reporting	A forensic tool for investigating faults, alarms, user actions and smoke trend	Each VESDA detector has an event log that stores the last 18000 events
A wide product range	So that there's a product to suit any size area that you want to protect... from a large, open office atrium to within the confines of a single switch room or cabinet	VESDA has the widest product range on the market
Protected optics and absolute calibration	Ensures repeatable and reliable detection of very slow growth incipient fires and long life without need for drift compensation or relative scaling	VESDA detectors feature a clean-air barrier to keep all optics free of contamination for a long service life without calibration
Broad range of integration options	Choice of fire systems and partners	Open interfaces, flexible integration options and a strong partner network
Monitoring and control of smoke detectors from a Central Monitoring Station or Emergency Control Room	Allows response to be controlled and monitored from a central point by trained operators	Using VESDA System Management (VSM4) software, every VESDA detector can be controlled and monitored remotely
An accredited global distribution and support network supported by strong applications engineering experience	So you get the right technical advice when you need it	All distributors of VESDA products are factory-accredited

ABOUT XTRALIS

Xtralis is a leading global provider of powerful solutions for very early & reliable detection of smoke, fire, and gas threats. Our technologies prevent disasters by giving users time to respond before life, critical infrastructure or business continuity is compromised.

We protect highly valuable and irreplaceable assets and infrastructure belonging to the world's top governments and businesses.

To learn more, please visit us at www.xtralis.com

Doc. No. 18638_04
February 2023