VESDA

THE WORLD'S LEADING BRAND OF ASPIRATING SMOKE DETECTION

VESDA very early warning smoke detection solutions provide the earliest possible warning of an impending fire hazard. VESDA buys time to investigate an alarm and initiate an appropriate response to prevent injury, property damage or business disruption. And because VESDA has the industry's widest sensitivity range and multi-level alarms, even minute levels of smoke can be detected before a fire has time to escalate.

As the world's leading ASD brand specified by fire professionals around the world, VESDA is synonymous with reliable, high-performance fire detection.

LEARN MORE: XTRALIS.COM

THE SEVEN REASONS FOR VESDA

1. When Business Continuity Is Paramount

Is uptime a key business goal? Is service provision critical?

VESDA very early warning smoke detectors provide the earliest warning of a potential fire which buys time to investigate, intervene and avoid business disruption in addition to damage, downtime and the cost of a suppression release. Such early warning is critical for:

- Telecommunications facilities
- Server rooms
- Financial data centers
- Utilities
- Power generation facilities

2. When Smoke Is Difficult To Detect

Is high airflow diluting smoke, preventing it from reaching the ceiling so it can be detected? Is the smoke being trapped in ducts, pockets or voids? Is smoke stratifying into a mushroom cloud below a high ceiling, making it difficult to detect?

VESDA sampling points can be placed at the return air grille or in equipment cabinets to detect smoke as it is carried by the air. In large, open spaces, sampling points can be placed where the smoke goes — often some distance below the ceiling level. Suitable for:

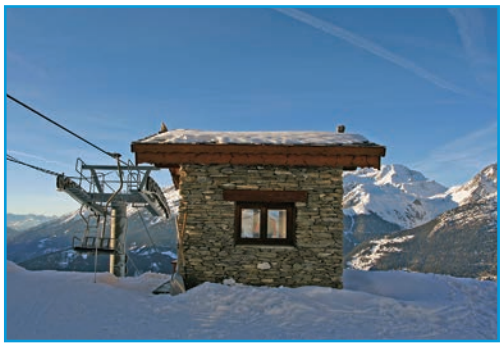
- Server rooms
- Telecommunications facilities
- Warehouses
- Atria
- Theaters
- Convention centers

3. When Maintenance Access Is Difficult

Is the area to be protected inaccessible? Does maintenance on traditional fire detection systems cause disruptions and inconvenience your business?

VESDA detectors can be mounted in accessible locations to enable easy maintenance. Only the sampling pipe network is placed in the inaccessible area. Ideal for:

- Ceiling voids and sub-floor spaces
- Prisons and detention facilities
- Ducts
- Production areas



4. When Unobtrusive Detection Is Required

Is it important to preserve the internal design/decoration of the building? Is vandalism a problem with the current smoke detection system?

A VESDA system can be installed with capillary sampling tubes, which are barely discernible to the human eye. The detectors can be placed in a cupboard or utility area. Great for:

- Modern offices
- Heritage buildings
- Cathedrals
- Prisons and detention centers
- Art galleries and museums
- Prestigious residences

5. When Evacuation Is a Challenge

Will the building be open to the general public? Will it house people who need extra help during an evacuation? Is evacuation difficult due to crowds or limited exits? What is the business impact of an evacuation?

The very early warning that VESDA systems provide allows the maximum time for evacuation. This is critical for:

- Shopping centers
- Underground tunnels
- Heritage buildings
- Facilities for children and the elderly

6. When Suppression Systems Are Present

Is suppression release costly and disruptive?

The very early warning provided by VESDA systems allows early intervention to prevent suppression releases. The multiple alarm levels of VESDA systems can be used to trigger different responses at different stages of a fire — from controlling air conditioning to initiating a suppression release. Applicable for:

- Communications hubs
- Server rooms
- Command stations
- Switch roomss

7. When Environmental Conditions Are Difficult

Are high background levels or industrial activities present in the area to be protected?

VESDA VLI detector, with its ruggedized enclosure and patented long-life, fail-safe intelligent filter technology, is specifically designed for industrial applications with harsh and difficult environments. The VLI detectors can be installed within the sampling area or remote from the detection area with only the sampling pipes located in the protected area. The sampled air can be filtered, warmed or cooled before reaching the detector. Ideal for:

- Mines
- Water treatment plants
- Manufacturing and processing plants
- Fertilizer plants
- Power generation facilities
- Textile plants
- Timber, pulp and paper plants
- Transportation

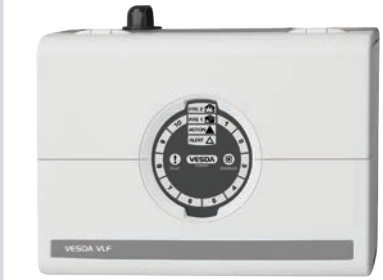
HOW VESDA WORKS

VESDA works by continuously drawing air into a distributed pipe network via a high-efficiency aspirator. The air sample then passes through a dual-stage filter. The first stage removes dust and dirt from the air sample before it enters the laser detection chamber. The second, ultra-fine stage provides an additional clean-air supply to keep the detector's optical surfaces free from contamination, ensuring consistent absolute detection and long detector life as well as minimizing nuisance alarms.

From the filter, the air sample goes through the detection chamber where it is exposed to a laser light source. When smoke is present, light is scattered within the detection chamber and is instantly identified by the highly sensitive receiver system. The signal is then processed and presented via a bar-graph display, alarm threshold indicators and/or graphic display. VESDA detectors are able to communicate this information to a fire alarm control panel, a software management system, or a building management system via relays or a High Level Interface (HLI).

VESDA PRODUCT RANGE

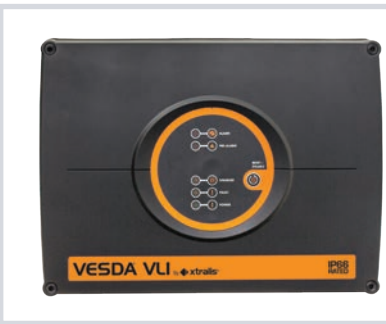
VESDA VLF



The VESDA VLF delivers advanced and cost-effective very early warning for small environments. The VESDA VLF-250 model protects areas up to 250 m^2 (2,690 sq. ft.), and the VESDA VLF-500 model covers up to 500 m^2 (5,380 sq. ft.).

In addition to world leading and well-established VESDA features, VESDA VLF provides a new range of features and built-in intelligence for quick installation, commissioning and servicing.

VESDA VLI



The VESDA VLI is an industry first early warning aspirating smoke detection system, designed to protect industrial applications including mining, manufacturing, power generation facilities, waste treatment plants and more up to 2,000 m^2 (21,520 sq. ft.).

The VLI detector combines a patented fail-safe Intelligent Filter with Clean Air Zero and clean-air barrier for optics protection complementing absolute detection and providing longer detection chamber life all enclosed in a robust IP66-rated enclosure.

VESDA ACCESSORIES

Remote Displays and Programmers

The VESDA display module monitors and reports the status of a detector, providing visual representation of smoke levels along with all alarm and fault conditions.

The menu-driven VESDA Programmer allows the user to conveniently configure, commission and maintain the VESDA system, as well as program each individual detector.

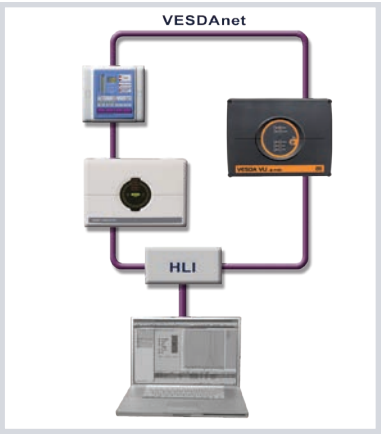
VESDA Pipe

A key element in the performance of a VESDA ASD system is the sampling pipe network that actively transports air from the protected area to the detector. VESDA offers an extensive range of pipe and fittings to suit all application needs, ensuring a quality system is installed every time.

Some pipes and fittings are not available in certain countries. Please check with your local Xtralis office prior to ordering.

VESDAnet™

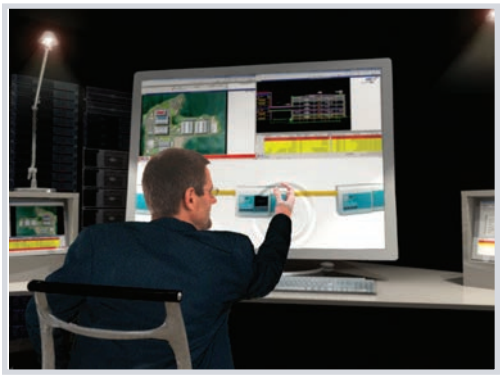
VESDAnet is a comprehensive, fault-tolerant, "closed," two-wire communications loop that links VESDA detectors, displays, programmers and remote relay modules on a daisy-chained loop. VESDAnet enables a number of units to be programmed together from one or more locations and automatically detects communication failures. It also easily interfaces with systems external to the network, such as intelligent fire alarm panels and building management systems.



VESDA SOFTWARE

Xtralis VSM4™

The VSM software package allows the user to monitor, configure and control a VESDA system from a central location via a VESDAnet communication loop or directly to VESDA detectors. Real-time and historical events for a single detector or multiple networks of detectors can be collected over a local- or wide-area network. The data then can be processed and presented in either report or graphical format — even graphically on site floor plans.



Xtralis VSC™

The VSC software package can be used to configure, commission and maintain VESDA detectors. The software provides high-level programming flexibility through its on-line and off-line configuration capabilities. Rapid diagnostic abilities, concurrent configuration views, compare/merge functionality, and simultaneous smoke-trend graphing of multiple detectors are other standard features designed to simplify operation and installation setup.

VESDA ASPIRE™

VESDA ASPIRE is the latest version of VESDA sampling pipe network design and modeling software. It aids in the design and evaluation process for basic to very complex pipe-network layouts. Key features, such as design wizards, 3-D isometric views, an automated design verification process, and a new AutoBalance capability, ensure that a tailored pipe layout is easily achieved. The Installation Data Pack (IDP) generates a series of reports with parameters, required materials and expected system performance so installation and commissioning engineers receive this information clearly.

VESDA DETECTOR CONFIGURATIONS

Features	VLF 250	VLF 500	VESDA VLI
Worldwide Certificates	UL, ULC, CCC, FM Class I Div II, ActiveFire (ISO/AS 7240-20), CE, LPCB, VdS, VNIIPO, NF, EN 54-20	UL, ULC, CCC, FM Class I Div II, ActiveFire (ISO/AS 7240-20), CE, LPCB, VdS, VNIIPO, NF, EN 54-20	UL, ULC, FM, ActivFire, CE, LPCB, NF, SIL 2 as per IEC 61508, EN 54-20
Hazardous Area Approval (FM Class 1, Div 2, Groups A, B, C, D)	Yes		Yes
Min Fire 1 Threshold	0.025% obs/m (0.008% obs/ft)		0.15%/m (0.047%/ft)
Detection Range	0.025 - 20% obs/m (0.008 - 6.25% obs/ft)		0.005 - 20.0% obs/m (0.0015 - 6.25% obs/ft)
Two Stage Filter	Yes		Patented Intelligent Filter Secondary Foam Filter Sub-sampling Probe
Area Coverage (Maximum)	250 m^2 (2,690 sq. ft)	500 m^2 (5,380 sq. ft)	2,000 m^2 (21,520 sq. ft)
Pipe Length (Linear)	25 m (82 ft)	50 m (164 ft)	360 m (1,181 ft)
Pipe Length (Branched)	30 m (98 ft)	60 m (197 ft)	445 m (1,460 ft)
Multiple Pipe Addressability	No		No
Total Number of Alarm Thresholds	8 (Day/Night)		8 (Day/Night)
Relay Outputs	3 (Expandable to 6)		5
On-board Memory (Max. Events)	18,000		18,000
Flow Sensor Circuit (one per pipe inlet)	1		4
IP Rating	IP30		IP66
AutoLearn™ (Smoke/Flow)	AutoLearn Smoke™ AutoLearn Flow™		AutoLearn Smoke™ AutoLearn Flow™
EN54-20 Max. no of Holes (Class A / B / C)	(12 / 12 / 12)	(30 / 30 / 30)	(24 / 28 / 60)
Bar Graph/Indicator LED	Local (7 on-board LEDs 10 Segment Circular Display) Remote display when fitted with VESDAnet card		Local (5 on-board LEDs) Remote display for VLI-885
Programming Tools **- On-board Programming Module** **- Handheld Programmer** **- PC Software (VSC, VSM)**	Programmed via RS232 direct connection to PC using VSC™ or Programmer when VN card is fitted		Local USB configuration port Connection to PC using VSC/ VSM4 Programmer for VLI-885
VESDAnet™			
Max. No. of Devices/Detectors Per Loop	200 / 100 (with VN Card)		200 / 100 (VLI-885)
Max. Distance Between Devices	1,300 m (4,265 ft) (with VN Card)		1,300 m (4,265 ft) (VLI-885)
Computer-Based Management via VSM	Yes		Yes
Remote Relay Modules **- 7 Relay Version** **- 12 Relay Version**	VRT-500 N/A		VRT-500 N/A
Compatible Remote Bargraph Displays **- Display, 7 Relays** **- Display, 12 Relays** **- Display, No Relays**	VRT-V00 N/A VRT-W00 (with VN Card)		VRT-Q00 N/A VRT-T00 (VLI-885)

ABOUT XTRALIS

Xtralis is a leading global provider of powerful solutions for the 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 valued assets and infrastructure belonging to the world's top governments and businesses.

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

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