FEATURES

- ✓ Sector addressability for up to four sectors
- ✓ Adaptive scan threshold
- ✓ Flair detection technology delivers reliable very early warning in a wide range of environments with minimal nuisance alarms
- ✓ Multi stage filtration and optical protection with clean air barriers ensures lifetime detection performance
- ✓ Four configurable alarm levels per sector and a wide sensitivity range deliver optimum protection for the widest range of applications
- ✓ Intuitive LCD display provides instant status information for immediate response
- ✓ Flow fault thresholds per port accommodate varying airflow conditions
- ✓ Smart on-board filter retains dust count and remaining filter life for predictable maintenance
- ✓ Extensive event log (20,000 events) for event analysis and system diagnostics
- ✓ AutoLearn™ smoke and flow for reliable and rapid commissioning
- ✓ Backward compatible with VLS and VESDAnet
- ✓ Ethernet for connectivity with Xtralis software for configuration, secondary monitoring and maintenance
- ✓ Secondary monitoring and maintenance via WiFi
- ✓ USB for PC configuration, and firmware upgrade using a memory stick
- ✓ Two programmable GPIs (1 monitored) for flexible remote control
- ✓ Field replaceable sub-assemblies enable faster service and maximum uptime

PRODUCT DESCRIPTION

The VESDA-E VES is similar to the VESDA-E VEP aspirating smoke detector but also includes a valve mechanism in the inlet manifold and software to control the airflow from the four Sectors (pipes). This configuration enables a single zone to be divided into four separate sectors, for example, distinguishing between separate aisles within a data room. The VES enables the user to locate the source of smoke by identifying the first sector to reach the Alert level. The detector then continues to sample from all sectors to monitor fire growth and will report separate alarm levels for each sector. The VES provides four individually configurable alarm levels (Alert, Action, Fire 1 and Fire 2) for each sector allowing optimum protection in a wide range of applications. Built on the Flair detection technology and years of application experience, VES detectors achieve consistent performance over their lifetime via absolute calibration.

HOW IT WORKS

The VES draws air from all sectors in use. If the smoke level reaches the Adaptive Scan Threshold, the VES quickly scans 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 signalled to the user. 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 Fast Scan is completed and the FAS identified, the VES continues to closely monitor all four sectors to track fire growth and maintain full protection of the area.

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FLAIR DETECTION TECHNOLOGY

Flair is the revolutionary detection chamber that forms the core of the VESDA-E VES, providing higher stability and increased longevity. Direct imaging of the sampled particles using a CMOS imager combined with multiple photo-diodes allows better detection and fewer nuisance alarms.

THE VES DISPLAY

The VES display Home page has a bar graph to indicate the smoke level and adaptive scan threshold. Fault icons are also included to indicate various fault conditions. When the adaptive scan threshold is exceeded the VES display automatically transitions to the Sector status page to indicate the smoke level and alarm level per sector. If alarms are configured as latched then alarm indication per sector will be retained until Reset is applied. The VES display can only return to the Home page under user control.

INSTALLATION, COMMISSIONING AND OPERATION

VESDA-E VES is equipped with a powerful aspirator that enables the use of 560m of total pipe length. Out of box operation is made possible with AutoConfig which allows airflow normalisation and AutoLearn Smoke and Flow to be initiated from within the detector. VES is fully supported by Xtralis VSC and ASPIRE software applications which facilitate ease of pipe network design, system commissioning and maintenance.

VESDANET™

VESDA devices communicate on VESDAnet which provides a robust bidirectional communication network allowing continued redundant operation even during single point wiring failures. VESDAnet enables primary reporting, centralized configuration, control, maintenance and monitoring.

ETHERNET AND WIFI CONNECTIVITY

VESDA-E detectors offer Ethernet and WiFi connectivity as standard features. The detector can be added to a corporate network, allowing WiFi enabled tablet devices and PC's installed with Xtralis monitoring and configuration software to connect wirelessly to the detector via the network.

BACKWARD COMPATIBILITY

VESDA-E VES is compatible with existing VESDA installations. The detector occupies the same mounting footprint, pipe, conduit and electrical connector positioning as VESDA VLS. VES is also compatible with existing VESDAnet installations allowing monitoring of both VESDA-E and legacy detectors via the latest iVESDA application.

TECHNICAL SPECIFICATIONS

Supply Voltage	18-30Vdc (24V Nominal)					
Power Consumption @ 24Vcd	VES-A00-P			VES-A10-P		
Aspirator Setting	1	5	10	1	5	10
Power (Quiescent)	7.0W	8.8W	14.7W	8.2W	10.0W	15.8W
Power (In Alarm)	7.8W	9.6W	15.5W	10.4W	11.6W	16.6W
Current (Quiescent)	0.29A	0.36A	0.61A	0.34A	0.41A	0.66A
Current (In Alarm)	0.32A	0.4A	0.64A	0.43A	0.48A	0.69A
Dimensions	350mm W x 225mm H x 135mm D					
Weight	4.3kg			4.4kg		
Operating Conditions	**Ambient:** 0ºC to 39ºC* **Tested to (EN54-20):** -10ºC to 55ºC **Sampled Air:** -20ºC to 60ºC** **Humidity:** 5% to 95% RH, non-condensing					
Area Coverage	2,000m²					
Min. Airflow per Pipe	20L/m					
Pipe Length (linear)	280m					
Pipe Length (branched)	560m					
Pipe lengths depending on number of pipes in use	2 Pipe 100m		3 Pipe 80m		4 Pipe 70m	
No. of holes (A/B/C)	40/80/100***					
Computer Design Tool	ASPIRE					
Pipe	**Inlet:** External diameter 25mm or 1.05" (3/4 in IPS) **Exhaust:** External diameter 25mm or 1.05" (3/4 in IPS) via adaptor					
Relays	12 programmable relays (latching or non-latching states) Contacts rated 2A @ 30Vdc (Resistive)					
IP Rating	IP40					
Cable Access	4 x 26mm cable entries					
Cable Termination	Screw Terminal blocks 0.2–2.5mm² (24–14 AWG)					
Dynamic Range	0.001% to 32% obs/m					
Sensitivity Range	0.005 to 20% obs/m					
Threshold Setting Range	**Alert:** 0.005% to 2.0% obs/m **Action:** 0.005% to 2.0% obs/m **Fire1:** 0.010% to 2.0% obs/m **Fire2:** 0.020% to 20.0% obs/m					
Software Features	**Event log:** Up to 20,000 events Smoke level and alarm threshold levels, user actions, alarms and faults with time and date stamp **AutoLearn:** Detector learns Alarm Thresholds and Flow Fault thresholds by monitoring the environment.					

* Product UL listed for use from 0ºC to 38ºC.

** Sampled Air temperature shall reach Detector Ambient temperature upon entry into Detector. Refer to Xtralis Design Guides & Application Notes for sampled air pre-conditioning.

*** Subject to agency confirmation.

ORDERING INFORMATION

VES-A00-P	VESDA-E VES with LEDs, Plastic Enclosure
VES-A10-P	VESDA-E VES with 3.5" Display, Plastic Enclosure

SPARE PARTS

VSP-955	VESDA-E VES Scanner Manifold Spare
VSP-960	VESDA-E Mounting Bracket
VSP-961	VESDA-E Exhaust adaptor US
VSP-962	VESDA-E Filter
VSP-962-20	VESDA-E Filter - 20 Pieces
VSP-963	VESDA-E Aspirator
VSP-964-03	VESDA-E Smoke Detection Chamber - MK3
VSP-965	VESDA-E Sampling Module
VSP-968	VESDA-E VES-A00-P Front Cover Plastic (LEDs)
VSP-969-S	VESDA-E VES-A10-P Front Cover Plastic (3.5" Display)

Please note that some spare parts are indent items. Contact FireSense to confirm availability.

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