FIRESUPPRESSION LTD
VESDA, FIRE DETECTION & FIRE SUPPRESSION

VESDA-E VEU

PRODUCT OVERVIEW

The **VESDA-E VEU** is a high-performance very-early warning smoke detector for large, high-airflow, or complex environments. Its advanced Flair detection technology ensures accurate smoke detection with minimal false alarms. Flexible pipe network design enables extended coverage and easier installation, while automated commissioning, airflow normalization, and predictive maintenance simplify operation. With VESDAnet and Ethernet connectivity, it supports remote monitoring and integration with building management systems. Backward compatibility allows phased upgrades and retrofits, making the VEU a reliable, versatile solution for demanding facilities.

BENEFITS

- Reduced nuisance alarms thanks to advanced Flair detection technology
- Flexible pipe network design for extended coverage and easier maintenance
- Robust connectivity via VESDAnet and Ethernet for monitoring, control, and integration
- High stability across varying temperatures and environmental conditions
- Multi-stage filtration and per-port airflow monitoring for reliability
- Field-replaceable components to minimize downtime
- Centralized diagnostics and extensive event logging for analysis

APPLICATIONS

- Large open spaces with high ceilings or complex layouts
- High-airflow environments such as industrial facilities or warehouses
- Data centers, server rooms, and electrical rooms
- Critical infrastructure requiring continuous monitoring
- Areas where phased upgrades or retrofits of existing VESDA systems are needed

Detection & Technology:
- Uses Flair particle imaging technology for highly accurate smoke detection across a wide sensitivity range.
- Reduces nuisance alarms with multi-sensor detection and advanced filtering.
- Multi-stage filtration protects the optical chamber from dust, lint, and other contaminants, extending operational life.

Installation & Operation:
- Supports pipe networks up to 800 m (2,625 ft) for broad area coverage.
- Automated airflow normalisation and learning functions streamline commissioning.
- Field-replaceable components and predictive filter-life monitoring reduce downtime.

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TECHNICAL SPECIFICATIONS

Specifications

Supply Voltage	18-30 VDC (24 V Nominal)					
Power Consumption @ 24VDC	**VEU-A00**			**VEU-A10**		
Aspirator Setting	1	5	10	1	5	10
Power (Quiescent)	7.0 W	9.0W	14.7 W	8.0 W	10.0 W	15.5 W
Power (In Alarm)	7.8 W	9.8 W	15.5 W	8.8 W	10.8 W	16.3 W
Dimensions (WHD)	350 mm x 225 mm x 135 mm (13.8 in x 8.9 in x 5.3 in)					
Weight	5.3 kg (11.7 lbs)			5.3 kg (11.7 lbs)		
Operating Conditions	Ambient: 0°C to 38°C (32°F to 100°F) Sampled Air: -20°C to 60°C (-4°F to 140°F) * Humidity: 5% to 95% RH, non-condensing					
Maximum area of coverage	6,500 m² (69,965 sq.ft)**					
Minimum airflow per pipe	15 l/m					
Pipe lengths depending on number of pipes in use	1 Pipe	2 Pipes	3 Pipes	4 Pipes		
	160 m (524 ft)	150 m (492 ft)	130 m (426 ft)	100 m (328 ft)		
Maximum pipe lengths	Total Pipe Length (with branches): 800 m (2625 ft)					
StaX	PSU					
No. of holes (A/B/C)	80/80/100					
Computer design tool	ASPIRE					
Pipe	Inlet: External diameter 25 mm or 1.05 in (3/4 in IPS) Exhaust: External diameter 25mm or 1.05 in (3/4 in IPS) via adaptor					
Relays	7 programmable relays (latch or non-latch states) Contacts rated 2 A @ 30 VDC (Resistive)					
IP rating	IP40					
Cable access	4 x 26 mm (1.02 in) cable entries					
Cable termination	Screw Terminal blocks 0.2–2.5 sq mm (24–14 AWG)					
Measurement Range	0.0000% to 32% obs/m (0.0000 to 11.09% obs/ft)					
Sensitivity Range	0.001% - 20.0% obs/m (0.0003 to 6.575% obs/ft)					
Threshold setting range	Alert: 0.001%-2.0% obs/m (0.0003%-0.614% obs/ft) Action: 0.001%-2.0% obs/m (0.0003%-0.614% obs/ft) Fire1: 0.001%-2.0% obs/m (0.0003%-0.614% obs/ft) Fire2: 0.001%-20.0% obs/m (0.0003%-6.575% obs/ft)					
Software features	Event log: Up to 20,000 events Smoke level, user actions, alarms and faults with time and date stamp AutoLearn: Detector learns Alarm Thresholds and Flow Fault thresholds by monitoring the environment.					

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

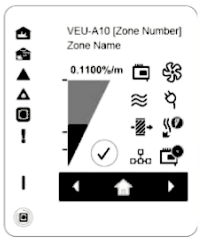
*** System design and regulatory requirements may restrict the monitoring area to a lesser amount.*

Spare Parts

VSP-956	VESDA-E Flow Sensor Manifold	**VSP-964-03**	VESDA-E Smoke Detection Chamber – MK3
VSP-956-04 *	VESDA-E Flow Sensor Manifold	**VSP-964-04 ***	VESDA-E Smoke Detection Chamber - MK4
VSP-960	VESDA-E Mounting Bracket	**VSP-965**	VESDA-E Sampling Module
VSP-961	VESDA-E Exhaust adaptor US	**VSP-966**	VESDA-E VEU-A00 Front Cover - Aluminum - LEDs
VSP-962	VESDA-E Filter	**VSP-967**	VESDA-E VEU-A10 Front Cover - Aluminum - LCD - 3.5" Display
VSP-962-20	VESDA-E Filter - 20 Pieces	**VSP-967-04 ***	VESDA-E VEU-A10 Front Cover - Aluminium - LCD - 3.5" Display
VSP-963	VESDA-E Aspirator		

** Spare parts for GA4 only.*

3.5" Display



LED	Description
	Fire 2
	Fire 1
	Action
	Alert
	Disabled
	Fault
	Power

Home Page

Icon on Display	Description
	Smoke and Alarm Threshold Levels
	Detector OK
	Detector Fault
	Aspirator Fault
	Airflow Fault
	Power Fault
	Filter Fault
	Smoke Chamber Fault
	VESDAnet Fault
	StaX Module Fault

Ordering Information

Ordering Code	Description
VEU-A00	VESDA-E VEU with LED's, Aluminium Enclosure
VEU-A10	VESDA-E VEU with 3.5" Display, Aluminium Enclosure

Approvals Compliance

Please refer to the Product Guide for details regarding compliant design, installation and commissioning.