

VESDA-E VEU (UL 268 7th Ed.)

VEU-A00-UL, VEU-A10-UL



The VEU series of aspirating smoke detectors are the premium detector of the VESDA-E range. An Ultra-wide sensitivity range; 15 times greater than VESDA VLP, and provision for more sampling holes provide an increased coverage in high airflow applications by at least 40%. Considerably longer linear pipe runs and extended branched pipe network configurations cater perfectly to applications with higher ceilings providing an increased coverage by up to 80% whilst allowing convenient detector mounting for ease of service and maintenance. A range of revolutionary new features provide unsurpassed detection performance, flexibility, field programmability, connectivity and reduced total cost of ownership.



Flair Detection Technology

Flair is the revolutionary detection chamber that forms the core of the VESDA-E VEU, 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.

Installation, Commissioning and Operation

VESDA-E VEU features a robust IP40-rated enclosure and is equipped with a powerful aspirator that provides a total pipe length of 2,001 ft (610 m). 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. VEU is fully supported by the ASPIRE and Xtralis VSC software applications which facilitate ease of pipe network design, system commissioning and maintenance.

VESDAnet™

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

Ethernet Connectivity

VESDA-E detectors offer connectivity to corporate networks via Ethernet, allowing for devices installed with Xtralis monitoring and configuration software to connect to the detector.

Backward Compatibility

VESDA-E VEU is fully compatible with existing VESDA installations. The detector occupies the same mounting footprint, pipe, conduit and electrical connector positioning as VESDA VLP. VEU is also compatible with existing VESDAnet installations allowing monitoring of both VESDA-E and legacy detectors via the latest VSC and VSM4 applications.

Features

- 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 alarm levels and an ultra wide sensitivity range deliver optimum protection for the widest range of applications
- Intuitive LCD icon 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
- Referencing to accommodate external environmental conditions to minimise nuisance alarms
- Backward compatible with VLP and VESDAnet

- Ethernet for connectivity with Xtralis software for configuration, secondary monitoring and maintenance
- 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

Listings / Approvals

- UL 268 7th edition
- ULC
- CSFM
- FDA
- FCC
- RCM

Regional approvals listings and regulatory compliance vary between product models. Refer to www.xtralis.com for the latest product approvals matrix.

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TECHNICAL SPECIFICATIONS



Specifications

Supply Voltage Range	18-30 VDC (24 V Nominal)					
	VEU-A00-UL			VEU-A10-UL		
Maximum Power Consumption*						
Power (Quiescent)	0.84A			0.84A		
Power (In Alarm)	0.88A			0.88A		
Nominal Power Consumption @ 24VDC						
Aspirator Setting	1	5	10	1	5	10
Power (Quiescent)	0.29A	0.38A	0.61A	0.32A	0.41A	0.64A
Power (In Alarm)	0.32A	0.41A	0.64A	0.35A	0.44A	0.67A
Dimensions (WHD)	13.8 in x 8.9 in x 5.3 in (350 mm x 225 mm x 135 mm)					
Weight	11.7 lbs (5.3 kg)					
Operating Conditions	Ambient: 32°F to 100°F (0°C to 38°C) Sampled Air: -4°F to 140°F (-20°C to 60°C) ** Humidity: 5% to 95% RH, non-condensing					
Maximum area of coverage	69,965 sq.ft (6,500 m²)***					
Minimum airflow per pipe	20 l/m					
Pipe lengths depending on number of pipes in use	1 Pipe	2 Pipes	3 Pipes	4 Pipes		
	524 ft (160 m)	492 ft (150 m)	426 ft (130 m)	312 ft (95 m)		
Maximum pipe lengths	Total Pipe Length (with branches): 2,001 ft (610 m)					
StaX	PSU, Auto Pipe Clean					
Maximum No. of holes	96					
Computer design tool	ASPIRE					
Pipe	Inlet: External diameter 1.05 in (3/4 in IPS) or 25 mm Exhaust: External diameter 1.05 in (3/4 in IPS) or 25 mm 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 1.02 in (26 mm) cable entries					
Cable termination	Screw Terminal blocks 0.2–2.5 sq mm² (24–14 AWG)					
Measurement Range	0.0000% to 11.09% obs/ft (0.000 to 32% obs/m)					
Sensitivity Range	0.0003 to 6.575% obs/ft (0.001% - 20.0% obs/m)					
Threshold setting range	Alert: 0.0003%-0.614% obs/ft (0.001%-2.0% obs/m) Action: 0.0003%-0.614% obs/ft (0.001%-2.0% obs/m) Fire1: 0.0003%-0.614% obs/ft (0.001%-2.0% obs/m) Fire2: 0.0003%-6.575% obs/ft (0.001%-20.0% obs/m)					
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.					

* Maximum current measured is from the supply voltage that generates the highest current.

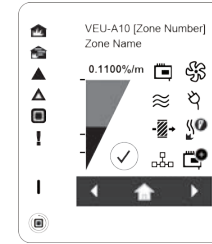
** Sampled Air temperature shall reach Ambient Detector temperature upon entry into Detector. Refer to Xtralis Design Guides & Application Notes for sampled air pre-conditioning.

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

Spare Parts

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

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-UL	VESDA VEU with LEDs, Aluminum Enclosure, UL
VEU-A10-UL	VESDA VEU with 3.5" Display, Aluminum Enclosure, UL

Approvals Compliance

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