VESDA-E VEU

VEU-A00, VEU-A10

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 new detection chamber that forms the core of VESDA-E VEU, providing better detection, fewer nuisance alarms, higher stability, increased longevity and particle characterisation. Direct imaging of the sampled particles using a CMOS imager combined with multiple photo-diodes provides vastly more data that can be used to derive actionable information about the observed particles using analytics.

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 2,624 ft (800 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 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 laptops installed with Xtralis configuration software to connect wirelessly to the detector via the network.

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 iVESDA application.

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
- Fully backward compatible with VLP and VESDAnet
- Remote monitoring with iVESDA for system review and proactive maintenance
- Ethernet for connectivity with Xtralis software for configuration, secondary monitoring and maintenance
- Industry first. Aspirating detector 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

Listings / Approvals

- UL
- ULC
- FM
- CSFM
- CE
- VdS
- ActivFire
- EN 54-20, ISO 7240-20

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

VESDA-E VEU

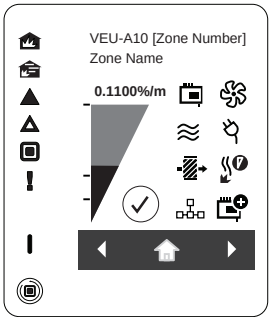
VEU-A00, VEU-A10

Specifications

Supply voltage	18-30 VDC (24 V Nominal)					
Power consumption @ 24 VDC	**VEU-A00**			**VEU-A10**		
Aspirator Setting	1	5	10	1	5	10
Power (Quiescent)	7.0 W	8.8 W	14.7 W	8.2 W	10.0 W	15.8 W
Power (In Alarm)	7.8 W	9.6 W	15.5 W	10.4 W	11.6 W	16.6 W
Dimensions (WHD):	13.8 in x 8.9 in x 5.3 in (350 mm x 225 mm x 135 mm)					
Weight	VEU-A00 - 10.6 lbs (4.83 kg) VEU-A10 - 10.8 lbs (4.9 kg)					
Operating conditions	Ambient: 32°F to 102°F (0°C to 39°C) Sampled Air: -4°F to 140°F (-20°C to 60°C) Tested to: -4°F to 131°F (-20°C to 55°C) UL: -4°F to 122°F (-20°C to 50°C) Humidity: 10% to 95% RH, non-condensing					
Maximum area of coverage	69,965 sq.ft (6,500 m²)*					
Minimum airflow per pipe	15 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)	328 ft (100 m)		
Maximum pipe lengths	Total Pipe Length (with branches): 2624 ft (800 m)					
Analytics	DieselTrace™, DustTrace™, WireTrace™					
StaX	PSU, Auto Pipe Clean					
No. of holes (A/B/C)	80/80/100					
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)					
Dynamic Range	0.00006% obs/ft (0.0002%/m) to 6.25% obs/ft (20% obs/m)					
Sensitivity Range	0.0003 to 6.25% obs/ft (0.001% - 20.0% obs/m)					
Threshold setting range	Alert: 0.0003%-0.625% obs/ft (0.001%-2.0% obs/m) Action: 0.0003%-0.625% obs/ft (0.001%-2.0% obs/m) Fire1: 0.0003%-0.625% obs/ft (0.001%-2.0% obs/m) Fire2: 0.0003%-6.25% 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.					

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

3.5” Display



Symbol	LED
	Fire 2
	Fire 1
	Action
	Alert
	Disabled
	Fault
	Power
	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

VESDA-E VEU with LED’s	VEU-A00
VESDA-E VEU with 3.5” Display	VEU-A10
Mounting Bracket	VSP-960

Spare Parts

VESDA-E Exhaust adaptor US	VSP-961
VESDA-E Filter	VSP-962
VESDA-E Filter - 20 pieces	VSP-962-20
VESDA-E Aspirator	VSP-963
VESDA-E Smoke Detection Chamber	VSP-964
VESDA-E Sampling Module	VSP-965

Approvals Compliance

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

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Doc. No. 22066_11 Part No. 30279

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