VESDA-E VEU

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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 800 m (2,624 ft). 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.

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FEATURES AND BENEFITS

- 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 a 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
- Two programmable GPIs (1 monitored) for flexible remote control
- 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
- Field replaceable sub-assemblies enable faster service and maximum uptime
- 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

VESDA-E VEU Technical Specification

PART NUMBERS	
DESCRIPTION	**ORDER CODE**
VESDA-E VEA-40 Aspirating Smoke Detector with LEDs	VEA-040-A00
VESDA-E VEA-40 Aspirating Smoke Detector with 3.5” Display	VEA-040-A10
VESDA-E VEA 40-Relay Local StaX	VER-A40-40-STX
SPARE PARTS	
VESDA-E VEA-40 Mounting Bracket	VSP-970
VESDA-E VEA-40 Smoke Sensor Module	VSP-971
VESDA-E VEA Filter	VSP-972
VESDA-E VEA Pump	VSP-973
VESDA-E VEA Rotary Valve	VSP-974
VESDA-E VEA-040-A00 Fascia wWith LEDs	VSP-975
VESDA-E VEA-040-A10 Fascia with 3.5” Display	VSP-976

APPROVAL COMPLIANCE

Please refer to the Product Guide for details regarding compliant design, installation and commissioning.
Regional approvals listings and regulatory compliance vary between product models. Refer to www.xtralis.com for the latest product approvals matrix.

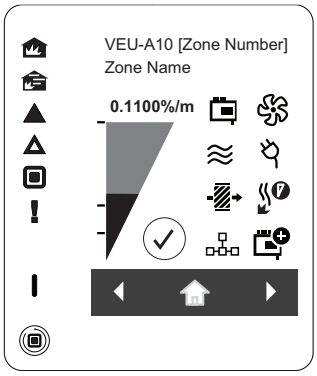
LISTINGS / APPROVALS *	
UL	
ULC	
VdS	
CE	
Active Fire	
EN 54-20, ISO 7240-20	Class A (80 holes / Fire 1 = 0.015% obs/m)
	Class B (80 holes / Fire 1 = 0.026% obs/m)
	Class C (100 holes / Fire 1 = 0.062% obs/m)
	(Classification of any configuration is determined using ASPIRE)

***These Listings/Approvals are owned by Xtralis, a Honeywell company. They are for the products covered in this document.**

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	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	350 mm x 225 mm x 135 mm (13.8 in x 8.9 in x 5.3 in)					
Weight	VEU-A00 - 4.83 kg (10.6 lbs) VEU-A10 - 4.9 kg (10.8 lbs)					
Operating Conditions	Ambient: 0°C to 39°C (32°F to 102°F) Sampled Air: -20°C to 60°C (-4°F to 140°F) Tested to: -20°C to 55°C (-4°F to 131°F) UL: -20°C to 50°C (-4°F to 122°F) Humidity: 10% 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 160 m (524 ft)	2 Pipes 150 m (492 ft)	3 Pipes 130 m (426 ft)	4 Pipes 100 m (328 ft)		
Maximum Pipe Lengths	Total Pipe Length (with branches): 800 m (2624 ft)					
Stax	PSU, Auto Pipe Clean					
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 mm2 (24–14 AWG)					
Dynamic Range	0.0002%/m (0.00006% obs/ft) to 20% obs/m (6.25% obs/ft)					
Sensitivity Range	0.001% - 20.0% obs/m (0.0003 to 6.25% obs/ft)					
Threshold Setting Range	Alert: 0.001%-2.0% obs/m (0.0003%-0.625% obs/ft) Action: 0.001%-2.0% obs/m (0.0003%-0.625% obs/ft) Fire1: 0.001%-2.0% obs/m (0.0003%-0.625% obs/ft) Fire2: 0.001%-20.0% obs/m (0.0003%-6.25% 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.					

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

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