

# VESDA-E VEP

VEP-A00-1P, VEP-A00-P, VEP-A10-P



The VESDA-E VEP series of smoke detectors bring the latest and most advanced detection technology to provide very early warning and the best nuisance alarm rejection to a wide range of applications. Built on the Flair detection technology and years of application experience, VEP detectors achieve consistent performance over their lifetime via absolute calibration. In addition, the VEP delivers a range of revolutionary features that provide user value.



## Flair Detection Technology

Flair is the revolutionary detection chamber that forms the core of the VESDA-E VEP, 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 VEP is equipped with a powerful aspirator that enables use of a total of 130m (427ft) of sampling pipe in the one pipe model and 560m (1,837ft) of pipe in the four pipe model. 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. VEP 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 VEP is compatible with existing VESDA installations. The detector occupies the same mounting footprint, pipe, conduit and electrical connector positioning as VESDA VLP. VEP is also compatible with existing VESDAnet installations allowing monitoring of both VESDA-E and legacy detectors via the latest iVESDA application.

## Features

- Suitable for Class 1 Division 2 applications - Groups A, B, C & D
- One and four pipe models for different applications
- Flair detection technology delivers reliable very early warning in a wide range of environments with minimal nuisance alarms
- Short wavelength laser-based detection:
  - High sensitivity from small particle light scattering
  - No drift compensation required since focused light directed at target gives low backgrounds
  - High stability with temperature and time
- 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
- Referencing to accommodate external environmental conditions to minimise nuisance alarms
- 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
- 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
- CSFM
- FM
- VdS
- NF-SSI ([www.marque-nf.com](http://www.marque-nf.com))
- VNIPO
- CE
- UKCA
- ActivFire
- CCC
- EN 54-20, ISO 7240-20  
Four Pipe VEP
- EN 54-20, ISO 7240-20
  - Class A (40 holes / Fire 1 = 0.028% obs/m)
  - Class B (80 holes / Fire 1 = 0.027% obs/m)
  - Class C (100 holes / Fire 1 = 0.056% obs/m)

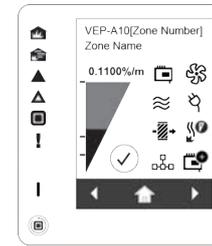
*Classification of any configuration is determined using ASPIRE.*

Regional approvals listings and regulatory compliance vary between product models. Refer to [www.xtralis.com](http://www.xtralis.com) for the latest product approvals matrix.

### Specifications

	One Pipe VEP	Four Pipe VEP			
Supply Voltage	18-30 VDC (24 V Nominal)				
Power Consumption @ 24VDC	VEP-A00-1P	VEP-A00-P		VEP-A10-P	
Aspirator Setting	Fixed	1	5	1	5
Power (Quiescent)	8.8 W	7.0 W	8.8 W	8.2 W	10.0 W
Power (In Alarm)	9.6 W	7.8 W	9.6 W	10.4 W	11.6 W
Dimensions (WHD)	350 mm x 225 mm x 135 mm (13.8 in x 8.9 in x 5.3 in)				
Weight	4.4 kg (9.7 lbs)	4.4 kg (9.7 lbs)		4.5 kg (9.9 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: 5% to 95% RH, non-condensing				
Area Coverage	1,000 m <sup>2</sup> (10,760 sq. ft.)	2,000 m <sup>2</sup> (21,520 sq. ft.)			
Min. airflow per pipe	15 l/m				
Pipe Length (Linear)	100 m (328 ft)	280 m (919 ft)			
Pipe Length (Branched)	130 m (427 ft)	560 m (1,837 ft)			
Pipe lengths depending on number of pipes in use	1 Pipe	1 Pipe	2 Pipe	3 Pipe	4 Pipe
	100 m (328 ft)	110 m (361 ft)	100 m (328 ft)	80 m (262 ft)	70 m (230 ft)
StaX	PSU	PSU, Auto Pipe Clean			
No. of holes (A/B/C)	30/40/45	40/80/100			
Computer design tool	ASPIRE				
Pipe	Inlet: External diameter 25 mm or 1.05 in (3/4 in IPS) Exhaust: External diameter 25 mm or 1.05 in (3/4 in IPS) via adaptor				
Relays	7 programmable relays (latching or non-latching 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)				
Dynamic Range	0.000%/m to 32%/m (0.0000%/ft to 10%/ft)				
Sensitivity Range	0.005 to 20% obs/m (0.0016% to 6.25% obs/ft)				
Threshold setting range	Alert: 0.005% to 2.0% obs/m (0.0016% to 0.625% obs/ft) Action: 0.005% to 2.0% obs/m (0.0016% to 0.625% obs/ft) Fire1: 0.010% to 2.0% obs/m (0.0031% to 0.625% obs/ft) Fire2: 0.020% to 20.0% obs/m (0.0063% to 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



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
VEP-A00-1P	VESDA-E VEP with LEDs, 1 pipe, Plastic Enclosure
VEP-A00-P	VESDA-E VEP with LEDs, 4 pipe, Plastic Enclosure
VEP-A10-P	VESDA-E VEP with 3.5" Display, 4 pipe, Plastic Enclosure

### Approvals Compliance

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

### Spare Parts

VSP-960	VESDA-E Mounting Bracket	VSP-964-03	VESDA-E Smoke Detection Chamber – MK3
VSP-961	VESDA-E Exhaust adaptor US	VSP-965	VESDA-E Sampling Module
VSP-962	VESDA-E Filter	VSP-968	VESDA-E VEP-A00-P/1P Front Cover Plastic (LEDs)
VSP-962-20	VESDA-E Filter - 20 Pieces	VSP-969	VESDA-E VEP-A10-P Front Cover Plastic (3.5" Display)
VSP-963	VESDA-E Aspirator	VKT-850	VESDA-E VEP Demo Kit
VSP-964	VESDA-E Smoke Detection Chamber		