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

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

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.

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 427 ft (130 m) of sampling pipe in the one pipe model and 1,542 ft (470 m) 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 VSC and VSM4 applications.

Features

- 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
- 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
- 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
- FM
- FDA
- FCC
- RCM

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

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

 xtralis®

TECHNICAL SPECIFICATIONS

Specifications

Supply Voltage Range	18-30VDC (Nominal 24VDC)			
Maximum Power Consumption*	**Quiescent**		**Alarm**	
VEP-A00-P-UL + IAQ STAX	0.95A		1.00A	
VEP-A00-P-UL VEP-A00-1P-UL VEP-A10-P-UL	0.57A		0.59A	
Nominal Power Consumption @ 24VDC	**Quiescent**		**Alarm**	
	Aspirator Setting			
	1	5	1	5
VEP-A00-P-UL + IAQ STAX	0.70A	0.78A	0.74A	0.82A
VEP-A00-P-UL	0.29A	0.38A	0.32A	0.41A
VEP-A00-1P-UL	0.34A		0.37A	
VEP-A10-P-UL	0.33A	0.41A	0.36A	0.44A

	One Pipe VEP	Four Pipe VEP	
	VEP-A00-1P-UL	**VEP-A00-P-UL**	**VEP-A10-P-UL**
Dimensions (WHD)	13.8 in x 8.9 in x 5.3 in (350 mm x 225 mm x 135 mm)		
Weight	9.7 lbs (4.4 kg)	9.7 lbs (4.4 kg)	10.0 lbs (4.5 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		
Area Coverage	10,760 sq. ft (1.000 m²)	21,520 sq. ft (2.000 m²)	
Min. Airflow per Pipe	15 l/m		
Pipe Length (Linear)	312 ft (95 m)	919 ft (280 m)	
Pipe Length (Branched)	427 ft (130 m)	1,542 ft (470 m)	

Pipe Lengths Depending on No. of Pipes in Use	1 Pipe	1 Pipe	2 Pipe	3 Pipe	4 Pipe
	312 ft (95 m)	361 ft (110 m)	328 ft (100 m)	262 ft (80 m)	230 ft (70 m)

| **StaX**	PSU	
Maximum No. of Holes	33	80
Computer Design Tool	ASPIRE	
Pipe Size	Inlet: External diameter 1.05 in (3/4 in IPS) 25 mm Exhaust: External diameter 1.05 in (3/4 in IPS) or 25 mm via adaptor	
Relays	7 programmable relays (latching or non-latching states) Contacts rated 2 A @ 30 VDC (Resistive)	
IP Rating	IP40 (not evaluated by UL)	
Cable Access	1 in (4 x 26 mm) ports	
Cable Termination	Screw Terminal blocks 0.2–2.5 sq mm (24–14 AWG)	
Measurement Range	0.0000% to 11.09% obs/ft (0.000 to 32% obs/m)	
Sensitivity Range	0.0015% to 6.575% obs/ft (0.005 to 20% obs/m)	
Threshold Setting Range	Alert: 0.0015% to 0.614% obs/ft (0.005% to 2.0% obs/m) Action: 0.0015% to 0.614% obs/ft (0.005% to 2.0% obs/m) Fire1: 0.0030% to 0.614% obs/ft (0.010% to 2.0% obs/m) Fire2: 0.0061% to 6.575% obs/ft (0.020% to 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.*

Approvals Compliance

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

3.5" Display
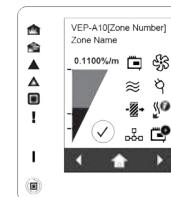
LED	Description
🏭	Fire 2
🏠	Fire 1
▲	Action
△	Alert
◙	Disabled
!	Fault
I	Power

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-P-UL	VESDA VEP with LEDs, Plastic Enclosure, UL
VEP-A10-P-UL	VESDA VEP with 3.5" Display, Plastic Enclosure, UL
VEP-A00-1P-UL	VESDA VEP 1 Pipe with LEDs, Plastic Enclosure, UL

Spare Parts

VSP-956-04*	VESDA-E VEP Flow Sensor Manifold	**VSP-963**	VESDA-E Aspirator
VSP-960	VESDA-E Mounting Bracket	**VSP-968**	VESDA-E VEP-A00-P/1P Front Cover Plastic (LEDs)
VSP-961	VESDA-E Exhaust adaptor US	**VSP-969-04***	VESDA-E VEP-A10-P Front Cover Plastic (3.5" Display)
VSP-962	VESDA-E Filter	**VSP-965**	VESDA-E Sampling Module
VSP-962-20	VESDA-E Filter - 20 Pieces	**VSP-964-04***	VESDA-E Smoke Detection Chamber - MK4

* *GA3 spare parts are available using existing ordering codes.*