# VESDA-E VEP

> 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 new detection chamber that forms the core of VESDA-E VEP, 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 allow vastly more data that can be used to derive actionable information about the observed particles using analytics.

### 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 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 PC's installed with Xtralis monitoring and configuration software to connect wirelessly to the detector via the network.

### 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.

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# FEATURES AND BENEFITS

- 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

- 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

- 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

## VESDA-E VEP Technical Specification

| PART NUMBERS | |
|---|---|
| **DESCRIPTION** | **ORDER CODE** |
| VESDA-E VEP with LEDs, 1 pipe | VEP-A00-1P |
| VESDA-E VEP with LEDs, 4 pipe | VEP-A00-P |
| VESDA-E VEP with 3.5" Display, 4 pipe | VEP-A10-P |
| 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 |

| LISTINGS / APPROVALS * | |
|---|---|
| UL | |
| ULC | |
| FM | |
| ActiveFire | |
| CE | |
| VdS | |
| EN 54-20, ISO 7240-20 Four Pipe VEP | 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.) |

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

### 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.

| | One Pipe VEP | | | Four Pipe VEP | |
|---|---|---|---|---|---|
| Supply Voltage | 18 - 30 VDC (24 V Nominal) | | | | |
| Power Consumption @ 24 VDC | 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 | 350 mm x 225 mm x 135 mm (13.8 in x 8.9 in x 5.3 in) | | | | |
| Weight | 4.0 kg (8.8 lb) | 4.0 kg (8.8 lb) | | 4.1 kg (9.0 lb) | |
| Operating Conditions | Ambient: 0°C to 39°C (32°F to 102°F)<br>Sampled Air: -20°C to 60°C (-4°F to 140°F)<br>Tested to: -20°C to 55°C (-4°F to 131°F)<br>UL: -20°C to 50°C (-4°F to 122°F)<br>Humidity: 10% to 95% RH, non-condensing | | | | |
| Area Coverage | 1,000 m2 (10,760 sq. ft) | | | 2,000 m2 (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 100 m (328 ft) | 1 Pipe 110 m (361 ft) | 2 Pipe 100 m (328 ft) | 3 Pipe 80 m (262 ft) | 4 Pipe 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)<br>Exhaust: External diameter 25 mm or 1.05 in (3/4 in IPS) via adaptor | | | | |
| Relays | 7 programmable relays (latching or non-latching states)<br>Contacts rated 2 A @ 30 VDC (Resistive) | | | | |
| IP Rating | IP40 | | | | |
| Cable Access | 4 x 26 mm (1.02 in) cable entries | | | | |
| Cable Termination | 4 x 26 mm (1.02 in) cable entries | | | | |
| Dynamic Range | 0.001% to 32% obs/m (0.0003% to 10% obs/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)<br>Action: 0.005% to 2.0% obs/m (0.0016% to 0.625% obs/ft)<br>Fire1: 0.010% to 2.0% obs/m (0.0031% to 0.625% obs/ft)<br>Fire2: 0.020% to 20.0% obs/m (0.0063% to 6.25% obs/ft) | | | | |
| Software Features | Event log: Up to 20,000 events<br>Smoke level, user actions, alarms and faults with time and date stamp<br>AutoLearn: Detector learns Alarm Thresholds and Flow Fault thresholds by monitoring the environment. | | | | |

VEP-A10[Zone Number]
Zone Name
0.1100%/m

| 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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