



VESDA® 

Discrete Microbore Aspirating
Smoke Detection



eurofyre
LIMITED



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An Introduction To Eurofyre

Eurofyre are a global provider of specialist fire detection and associated safety products for commercial and industrial applications. The systems we manufacture, supply and promote are designed to give users time to respond to possible threats before the loss of critical infrastructure, high value assets, business downtime and, most crucially, life.

Based in the UK, Eurofyre Ltd is a privately owned company established in 2007. Our ambition is to provide the highest possible quality and level of service to all of our customers and we strive to achieve this by providing comprehensive online literature and specific training programs together with excellent pre and post-sale technical support.

Complete System Supplier

To meet the demands of today's fire alarm and life safety requirements, we have positioned ourselves as a "complete system supplier" to ensure optimum customer satisfaction.

Our broad range of products include:

Conventional fire detection systems		Open-area smoke detection	
2-wire fire detection systems		Video smoke detectors	
Analogue addressable fire detection systems		Combustible gas detection systems	
Wireless fire detection		Voice evacuation systems	
Linear heat detection		Carbon monoxide detection systems	
High sensitivity aspirating smoke detection systems		Power supply units	

The advantage of being a complete system supplier means there are no compatibility issues when it comes to choosing a fire alarm system. By providing a complete range, such as our ProFyre analogue addressable fire alarm system, we can ensure you have a one stop shop for all necessary components including the control panel, smoke and heat detectors, sounders and interfaces.

Approval/Certification



Many of the products we manufacture and distribute are third-party certified by internationally recognised test and approval bodies such as the LPCB, BSI, Intertek, VdS, UL and FM. This confirms to specifiers, installers and consumers alike that our products meet the design and performance requirements of key British, European and international standards.

Key Features

EN54:20, ISO 7240-20 approved



Discrete 6mm microbore air sampling detection



Up to 40 individual, identifiable pipes/areas per VEA detector



Pipe addressability with a tailored pre-engineered service by Eurofyre



Reduced total cost of ownership over point detection



Overview

The VESDA-E VEA system combines the reliability of VESDA early warning smoke detection with pinpoint addressability and a range of annunciation options that exceed traditional spot detectors.

VESDA-E VEA detectors draw a mixture of air from a network of sampling pipes. Once a fire is detected the system uses a rotary valve to individually test each sampling point, allowing the detector to accurately pinpoint the location of a fire.

The detector easily interfaces with fire warning and fire suppression release systems, and can be integrated into a building management system (BMS).

Approvals

The VESDA-E VEA and components are fully approved by VdS and bears the CE mark to show that they comply with all the applicable Directives including the CPR, EMC and the Low Voltage Directive (LVD).



“In automatic fire detection and fire alarm systems”

0786-CPR-21537

VdS Approval No. G 217025



VESDA 



Typical Applications

The VESDA-E VEA is an aspirating smoke detector (ASD) that provides early warning of fire conditions by drawing air samples through a single hole addressable microbore tube air-sampling network. This flexibility makes VESDA-E VEA detectors extremely flexible for use in a wide range of applications including:

High End Residential Property



Commercial Shop Outlets



Offices



Prisons



Hospitals



Data Centers



Schools



Switchgear Cabinets



? How Does The VEA Work?

VESDA-E VEA addressable smoke detection draws a combined sample of air from all sampling points in the protected area, through a network of flexible tubing. The air sample is then filtered and analysed in a laser detection chamber within the smoke sensor module. When smoke particles are detected and the smoke reaches the set alarm threshold, appropriate alarm conditions are raised.

After the alarm is raised, the system uses a rotary valve to sequentially scan the sampling locations to identify the individual area(s) that smoke is present. At any point, or if the system is in pre-alarm, the user can easily identify the area in which there may be an issue by initiating a smoke scan of all locations.

VEA detectors use a vacuum pump which provides superior detection time for long tubing lengths. Airflow is monitored by the system which can identify any blockages or breakages of individual sampling tubes and points, showing any faults on the display or the monitoring equipment.

A series of LEDs display Trouble, Disable, Alarm and detector power status and a button to allow users to disable or reset the detector is available at the unit. As well as this, the VEA offers an optional 3.5" display which shows detector status.



The Unique Features

The VEA is a flexible sensitivity aspirating smoke detector that can identify the source of an incipient smoke incident, speeding response, enhancing investigation and minimising business disruption and downtime.

The VEA detector is unique in the ability to pinpoint the source of smoke incident and locate the event, therefore minimising investigation and downtime. This advanced detector provides intelligent addressability to identify up to 40 protected areas, via microbore air sampling tubes with an unparalleled sensitivity.

Reduced Preventative Maintenance

Maintenance and assured monitoring features built in to the VEA such as tube blockage detection, dual stage filtration, automatic sampling point cleaning and replaceable components reduce service time and the overall total cost of ownership.

Discrete High Sensitivity Air Sampling

With the advantages of high sensitive air sampling smoke detection, there is no need to spoil the aesthetics of a beautifully decorated property with unsightly smoke detectors. Solution - the installation of flush sampling points that can be hidden while still providing superior fire detection.

Flexible Pipe Network

A VEA tube network can support between 6 and 40 microbore tubes, each up to 100 meters in length. All tubes must have equal airflow and this is achieved either by making them all equal in length, or a combination of 6mm (normal) and 4mm (reduced) diameter tube configurations.



Flexible and Fast Installation

Flexible microbore tubes are easy to install with push-fit connections and passive sampling points hence no compliance requirements to electrical codes.



Advanced and Effective Response

VEA provides best in class connectivity including WAN and Wireless. iVESDA application provides real time and remote access to VEA allowing advance service preparation saving time and money and avoiding multiples service visits.



⇔ Fire Alarm System Integration

As a technical supplier with many years of microbore air sampling know-how, we understand that time is considerably valuable on-site during a project build and with the VESDA-E VEA, the installation and commissioning couldn't be easier. Eurofyre offer a tailored service allowing the VEA microbore product to be connected to an addressable fire alarm loop via a pre-engineered fully addressable interface unit.

This interface will be pre-engineered away from the installation site to ensure optimum operational functionality prior to installation. The pre-engineering will encompass the following:

1. Supply and wiring of OEM addressable interfaces.
2. Pre-addressing of the interface unit in line with final site design details.
3. Full functional and 24 hour soak testing of the system.
4. Engineering certificate to detail the system prior to sending to site.

✓ Supported OEM Protocols

- Eurofyre - ProFyre
- Apollo Fire Detectors - Discovery, XP95
- Hochiki - ESP
- Nittan - Evolution



VESDA-E VEA

The VESDA-E VEA series of detectors combine VESDA reliability and early warning smoke detection with pinpoint addressability and a variety of annunciation options that truly surpass traditional point detectors.

Installation, Commissioning and Maintenance

The VEA detector features a robust IP40-rated enclosure and is equipped with a powerful pump that provides up to 100m microbore tube length. It is fully supported by the Xtralis VSC software which facilitates ease of system commissioning and maintenance. During commissioning, the normalisation process establishes the flow performance parameters. Field replaceable filter, smoke sensor module, pump and rotary valve components result in less down time and ease of maintenance.

Optional Colour LCD Display

The VEA-040-A10 detector features a 3.5" colour LCD display which provides a range of status information including alarm and fault conditions as well as smoke level. Screens for each type of information are available using a simple navigation system.

VESDAnet™

VESDA detectors and 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.



Ordering Information

VESDA-E VEA

VEA-040-A00

VESDA-E VEA-40 Aspirating Smoke Detector with LEDs

VEA-040-A10

VESDA-E VEA-40 Aspirating Smoke Detector with 3.5" Display

Eurofyre Multi-Input Interface Module

The Eurofyre Multi-Input Interface Module allows signalling of alarm location from the VEA detector via relays and pre-engineered fire panel loop input modules inside the enclosure. It is directly powered and controlled from the detector.

Installation

The multi-input interface features a robust IP40-rated enclosure. The module has the same dimensions as the VEA detector making it easy to install. It can be mounted above or below the detector. A spacer is provided to precisely align the interface module mounting bracket with the detector mounting bracket, the same spacer is used to provide correct spacing in case of direct mounting to the wall. The module is fully supported by the Xtralis VSC software package for commissioning and maintenance.



Ordering Information

Multi-Input Interface Module

EF-INTAA-BB VEA Addressable Multi-way Interface

Replace AA with the relevant number of ways below:

17	17-way Interface
22	22-way Interface
32	32-way Interface
42	42-way Interface

Replace BB with the relevant protocol below:

PF	Eurofyre - ProFyre
APO	Apollo - XP95/Discovery
HK	Hochiki - ESP
NT	Nittan - Evolution

Pipe & Fittings

6mm Sampling Tube

22-300 50m Drum, 6mm OD, 4mm ID Opaque Capillary Tube



4mm Sampling Tube

22-305 30m Roll, 4mm OD, 2.5mm ID Opaque Capillary Tube



8mm Exhaust Tube

22-310 30m Roll, 8mm OD, 6mm ID Opaque Capillary Tube



Pipe Fittings

22-330 Straight Union, 6mm Microbore



22-336 Tube to Tube Adaptor, 6mm to 4mm Microbore



22-332 Equal 90 degree Elbow, 6mm Microbore



22-333 Blanking Plug, 6mm Microbore



6mm Flush Sampling Point

22-320 White Flush Plastic Sampling Point, 6mm Microbore



4mm Flush Sampling Point

22-327 White Flush Plastic Sampling Point, 4mm Microbore



 Representative

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