Intelligent VESDA-E VEP Series Aspiration Detectors

General

The intelligent VESDA-E VEP Series aspirating 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 Intelligent VESDA-E VEP, providing better detection, fewer nuisance alarms, higher stability, increased longevity and particle characterization. Direct imaging of the sampled particles using a CMOS imager combined with multiple photo-diodes allow vastly more data about the observed particles.

Three models are available for use in different size & style of applications, a single pipe VEP with LED display and four pipes VEP with LED only or LED and LCD display. They provide detection coverage to protect the following areas:

• **VEP-A00-1P-NTF (Intelligent VEP single pipe)**: Up to 1,000 sq. m coverage through one pipe.

• **VEP-A00-P-NTF, VEP-A10-P-NTF (Intelligent VEP four pipes)**: Up to 2,000 sq. m coverage through four pipes.

These detectors are compatibly listed for use with the ONYX AFP-3030 fire alarm control panels, and the NCA-2. They operate in FlashScan® mode only.

An Intelligent VESDA-E VEP Series detector connects to the SLC loop of compatible intelligent fire alarm control panels using FlashScan® protocol to communicate up to five levels of events for display and use in control-by-event system programming. Using the SLC connection, the system operator can also review real-time status information, such as alarms and faults. The system operator can also put an Intelligent VEP Series detector into service mode, or reset airflow baselines.

Intelligent VEP Series detectors support multiple sensitivity modes with four alarm levels. Day/Night/Weekend mode enables technicians to configure alarm thresholds based on routine changes in the environment.

CONNECTIVITY AND CONFIGURATION

VESDA-E detectors offer Ethernet connectivity as standard feature. The detector can be added to a corporate network, allowing devices installed with Xtralis configuration and monitoring applications (VSC / VSM/iVESDA) to connect wirelessly to the detector via the network. VSC is used for configuration and VSM is used for both configuration and monitoring. iVESDA is used for remote monitoring on mobile devices. Xtralis pipe network design tool Aspire is intuitive application to create a pipe network tailored to meet site specific requirements.

BACKWARD COMPATIBILITY

The Intelligent VESDA-E VEP Series is compatible with existing VESDA installations. The detector occupies the same mounting footprint, pipe, conduit and electrical connector positioning as VESDA VLP.

Intelligent VESDA-E VEP-A10-P-NTF

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.
- Flow fault thresholds 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 for reliable and rapid commissioning.
- Referencing to accommodate external environmental conditions to minimize nuisance alarms.
- 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 GPIs (monitored/unmonitored) with fix mapping to detector reset function.
- Field replaceable sub-assemblies enable faster service and maximum uptime.

FLASHSCAN CAPABILITIES

- The Intelligent VESDA-E VEP Series connects to the Signaling Line Circuit (SLC) loop of ONYX AFP-3030 panels. For these detectors, panel firmware version 20 or higher is required.
- Uses 5 detector SLC addresses. *Sensitivity for all event thresholds are programmed with the VSC or VSM applications.*

- Detector trouble reporting at panel.
- Supports setting one device as an Aspiration Reference for other Intelligent VESDA-E VEP or VEU Series detectors on the same SLC loop.

ONYX AFP-3030/NCA-2 CAPABILITIES

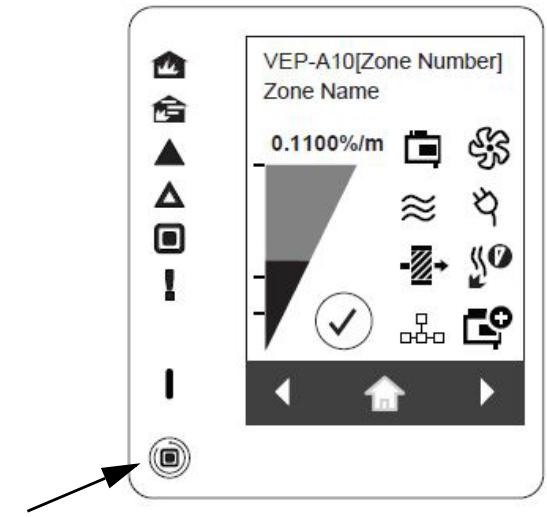
- Displays the real-time read status of percent of alarm.
- Put Intelligent VESDA-E VEP detectors into Service Mode, shutting the device down for maintenance.
- Reset airflow baselines for an Intelligent VESDA-E VEP detector.

Specifications for all Intelligent VESDA-E VEP Series Detectors

	One Pipe VEP	**Four Pipe VEP**			
Supply voltage	18-30 VDC (24 V Nominal)				
Device current consumption @ 24 VDC	**VEP-A00-1P-NTF**	**VEP-A00-P-NTF**		**VEP-A10-P-NTF**	
Aspirator setting	Fixed	1	5	1	5
Normal Operation[1]	360mA	290mA	370mA	330mA	410mA
In alarm[1]	390mA	320mA	400mA	360mA	440mA
SLC current consumption					
Normal Operation	8mA	8mA	8mA	8mA	8mA
In alarm	8mA	8mA	8mA	8mA	8mA
Dimensions (WHD):	350 mm x 225 mm x 135 mm				
Weight	4.4 kg	4.4 kg		4.5 kg	
Operating conditions	Ambient: 0°C to 39°C Sampled Air: -20°C to 60°C Humidity: 5% to 95% RH, non-condensing				
Area coverage	1,000 m2	2,000 m2			
Min. airflow per pipe	15 l/m				
Pipe length (Linear)	100 m	280 m			
Pipe length (Branched)	130 m	560 m			
Pipe lengths (depending on number of pipes in use)	1 Pipe	1 Pipe	2 Pipe	3 Pipe	4 Pipe
	100 m	110 m	100 m	80 m	70 m
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 adapter				
Relays	7 pre-configured relays 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% to 32% obs/m				
Sensitivity range	0.005 to 20% obs/m				
Threshold setting range	Alert: 0.005% to 2.0% obs/m Action: 0.005% to 2.0% obs/m Fire1: 0.010% to 2.0% obs/m Fire2: 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.				

[1]If Ethernet port is in use add additional 10mA.

User Interface display



Acknowledge to stop the buzzer.

Agency Listings and Approvals

The listings and approvals below apply to Intelligent VESDA-E VEP detectors. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

ActivFire: AS 7240.20.
UL/ULC Listed: S5198 Vol 20.
CSFM: 7259-1728-0502.

Product Line Information

VEP-A00-1P-NTF: Intelligent aspiration smoke detector with LED display, single pipe, covers up to 1,000 square m. FlashScan.

VEP-A00-P-NTF: Intelligent aspiration smoke detector with LED display, 4 pipes, covers up to 2,000 square m. FlashScan

VEP-A10-P-NTF: Intelligent aspiration smoke detector with LED and LCD display, 4 pipes, covers up to 2,000 square m. FlashScan.

Symbol	LED
	Fire 2
	Fire 1
	Action
	Alert
	Disabled
	Fault
	Power
	Smoke & Alarm Threshold Level
	Detector OK
	Detector Fault
	Aspirator Fault
	Airflow Fault
	Power Fault
	Filter Fault
	Smoke Chamber Fault
	Communication Fault
	StaX Module Fault

This document is not intended for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice.

Country of Origin: Malaysia

For more information, contact Notifier:
Phone (Australia): 1800 220 345 (Toll free)
Phone (New Zealand): 800 220 345 (Toll free)

www.notifier.com.au
www.notifier.co.nz

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BSI™ ISO9001 FS 520324 ENGINEERING & MANUFACTURING QUALITY SYSTEMS