

Safety Solutions Product Guide

Table of Contents

About Xtralis	2
Safety Products	3
VESDA-E The Next Generation of VESDA Aspirating Smoke Detectors	9
VESDA Aspirating Smoke Detection	17
Batteries and Power Supplies	28
ICAM Flexible Aspirating Smoke Detection	
OSID Open-area Smoke Imaging Detection	
Aspirating Smoke Detection Combined with Gas Monitoring	
Xtralis	47
Software	49
Pipes and Fittings	53
Test and Commissioning Tools	60
Test Transformer	
Location	62
Tachnical Support	63

About Xtralis

Xtralis is the leading global provider of powerful solutions for the early and reliable detection and remote visual verification of smoke, fire, and gas threats. Our technologies prevent disasters by giving users time to respond before life, critical infrastructure or business continuity is compromised. We protect high-value and irreplaceable assets belonging to the world's top governments and businesses.

Xtralis has been a pioneer in life safety innovations for more than 30 years. We are the world's largest manufacturer of very early warning aspirating smoke detection (ASD) systems, including VESDA, the world's leading ASD brand. With more than 230 patents (granted or pending) and numerous firsts and innovations in our technology portfolio, Xtralis leads the market in very early warning fire detection (VEWFD) and integrated security solutions, including perimeter, intrusion detection, multi-site and enterprise security and traffic detection.

The award-winning Xtralis portfolio includes:

- VESDA-E Aspirating Smoke Detection (ASD)
- VESDA Aspirating Smoke Detection (ASD)
- Industrial VESDA VLI ASD for Industrial Applications
- ICAM Flexible Aspirating Smoke Detection
- OSID Open-area Smoke Detection

Safety Products

Xtralis is the inventor and pioneer of VESDA aspirating smoke detection (ASD) technology and remains the world's leading supplier of ASD systems. Top governments and businesses around the globe rely on Xtralis for technically superior life safety solutions to protect people, critical infrastructure and high-value or irreplaceable assets.

VESDA-E: The Next Generation of Aspirating Smoke Detection

VESDA-E is the next generation of aspirating smoke detection (ASD) from Xtralis. VESDA-E offers ultra-sensitive ASD; 15 times better than current VESDA models with double the longevity, improved dust rejection, and 8% less power consumption per unit area. VESDA-E brings precision addressability to ASD with flexible tubing up to 120 holes per system. Other advanced features, including StaX expansion modules, add capabilities like gas detection for enhanced detection and monitoring; connectivity from WiFi to Ethernet and smart devices, and remote field programmability. VESDA-E is the most advanced, reliable, and flexible ASD system ever.

Very Early Warning Smoke Detection

Xtralis provides highly reliable smoke detection at the earliest presence of fire while discriminating against false alarms. Conventional fire detection does not offer adequate protection because toxic smoke can begin to spread, and fire damage can occur before a warning is issued. In contrast, Xtralis' VESDA and ICAM aspirating smoke detection (ASD) systems continuously sample the air for the smallest traces of smoke to provide valuable time to understand a threat and stage an intelligent response. Our powerful life safety solutions provide reliable smoke detection in zero-tolerance environments, adhering to the highest safety standards and mitigating risks to facilities, assets and personnel.

Gas Detection and Environmental Monitoring

Xtralis offers more than just fire detection solutions. Our VESDA ASD systems can be extended to include gas detection and environmental monitoring.

VESDA ECO can be used to detect smoke as well as hazardous/combustible gases that pose unseen threats. These solutions provide cost-effective, 24/7 active air sampling for the early detection of gas leaks even in the toughest of environments.

Open-area Smoke Detection

Fire detection for buildings with open spaces presents unique challenges, and very early warning may not always be the priority. When only standard sensitivity detection is required, Open-area Smoke Imaging Detection (OSID) by Xtralis offers the most reliable and cost-effective smoke detection solution for open spaces. It delivers superior performance to overcome all of the shortcomings inherent to other detection systems currently used in these applications such as beam, heat and flame detectors.

Choose the Right Product for your Segment and Application

	Coverage			2000m²			1000m²	500m²	250m²	200	Dm²
	Detection	UVEW	AEW	VEW	AVEW	IVEW	VEW	VE	EW	Beam	PIAB
	Product	VEU	VEA	VEP-4	VES	VLI	VEP-1	VI	LF	OSID	
	IT and Communications										
	Clean Room										
	Highrise and Residential										
	Manufacturing										
¥	Airport										
Vertical Market	Railway										
Ma	Logistics / Warehouse										
<u> </u>	Logistics / Cold Storage										
追	Correctional Facilities										
Vel	Cultural and Heritage										
	Power										
	Retail and Commercial										
	Oil and Gas										
	Sporting Venues										
	Education										
	Waste Recycling										
	Mining										

	Void Protection					
	Return Air					
	Cabinet Protection					
	Duct Detection					
	Tunnel (cable or other)					
	Lift Shaft					
ou	Small Computer Room					
Application	Open Area Protection					
	Harsh Environment					
γpγ	Control Room					
4	Switch Room					
	Restricted Access Room					
	In-Rack					
	Conveyor					
	Special Hazard (CL 1 DIV 2)					
	Car Parks (underground)					

VEW	Very Early Warning Smoke Detection
UVEW	Ultra Very Early Warning Smoke Detection
AVEW	Addressable Very Early Warning Smoke Detection
IVEW	Inudstrial Very Early Warning Smoke Detection
AEW	Addressable Early Warning Smoke Detection
PIAB	Point-In-A-Box

VESDA Models Comparison Chart

			VESDA-E					VESDA			VESDA Indus	strial Products
Features	VEU	VI VEP-1	EP VEP-4	VES	VEA	VLP	VLS	VLC (VN)	VLC (RO)	VLF 250/500	VLI	VLC-EX
Pipes and area coverage												
Pipe Length (Linear)	400 m (1.312 ft)	100 m (328 ft)	280 m (919 ft)	280 m (919 ft)	40 x 100 m (40 x 328 ft)		00 m 56 ft)) m 2 ft)	25/50 m (82/164 ft)	360 m (1.181 ft)	80 m (262 ft)
Pipe Length (Branched)	800 m (2.624 ft)	130 m (427 ft)	560 m (1.837 ft)	560 m (1.837 ft)	N/A		00 m 312 ft)		0 m 8 ft)	30/60 m (98/197 ft)	445 m (1.460 ft)	100 m (328 ft)
Area Coverage	6.500 m² (69.965 sq ft) *	1.000 m ² (10.760 sq ft)	2.000 m² (21.520 sq ft)	2.000 m ² (21.520 sq ft)	2.000 m ² (21.520 sq ft) 40- 120 sample holes	2.000 m ² (21.520 sq ft)	2.000 m ² (21.520 sq ft) across 4 sectors	800 m² (8	.610 sq ft)	250/500 m ² (2.690/5.380 sq ft)	2.000 m ² (21.520 sq ft)	800 m² (8.610 sq ft)
No. of Pipe Inlets	4	1	4	4	40 expandable to 120 tubes		4		1	1	4	1
Multiple Pipe Addressability	No	Ν	lo	Up to 4 sectors	Up to 40	No	Up to 4	No	No	No	No	No
Sensitivity				·								
Min Fire 1 Threshold	0.001%obs/m (0.0003%obs/ft)	0.01%obs/m (0	0.0031%obs/ft)	0.01% obs/m (0.0031 obs/ft)	1.6%obs/m (0.5% obs/ft)		0.015% (0.0046	obs/m % obs/ft)		0.025%obs/m (0.008% obs/ft)	0.15%/m (0.046%/ft)	0.015%obs/m (0.0046%obs/ft)
Detection Range	0.001 - 20.0%obs/m (0.0003 - 6.25%obs/ft))%obs/m 25%obs/ft)	0.005 - 20%obs/m (0.0016% - 6.25% obs/ft)	0.020 - 16%obs/m (0.006 - 4.88%obs/ft)			0% obs/m 25% obs/ft)		0.025 - 20%obs/m (0.008 - 6.25%obs/ft)	0.005 - 20.0%obs/m (0.0016 - 6.25%obs/ft)	0.005 - 20%obs/m (0.0016 - 6.25%obs/ft)
EN54-20 (Class A / B / C)												
Max. no of Holes	80/80/100	30/40/45	40/80/100	40/80/100 **	40 - 40	30/60/100	40/40/60	30/3	36/40	VLF 250 12/12/12 VLF 500 30/30/30	24/28/60	30/36/40
Sensitivity (%obs/m)	1.5/3/10	1.5	/3/8	15/3/8 **	1.6/4/8	1.5/4.5/10	3.9/11/50	1.5/4	1.5/10	1.5/4.5/10	1.5/4.5/10	1.5/4.5/10
Transport time (seconds)	70/90/110	60/90	0/110	60/90/90**	40 - 90 (Tube length dependent)	60/90/120	75/90/90	60/9	0/120	VLF- 250 60/60/60 VLF- 500 90/90/90	60/90/120	60/90/120
Others												
Hazardous Area Approval (FM Class 1, Div 2, Groups A, B, C, D)	No	Pending	Pending	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes
IP Rating	IP40	IP	40	IP40	IP40	IP30	IP30	IP30	IP30	IP30	IP66	IP54

www.acornfiresecurity.com

			VESDA-E					VESDA			VESDA Indus	trial Products
Features	VEU	V VEP-1	EP VEP-4	VES	VEA	VLP	VLS	VLC (VN)	VLC (RO)	VLF 250/500	VLI	VLC-EX
Two Stage Filtration	Yes	Y	es	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Patented Intelligent Filter Secondary Foam Filter Sub- Sampling Probe	Yes
Total Number of Alarm Thresholds	4 (Day/Night)	4 (Day	/Night)	32 (Day/Night)	4 (Day/Night)	4 (Day/Night)	16 (Day/Night)	3	3	4 (Day/Night)	4 (Day/Night)	3
Relay Outputs	7		7	12	7 (Expandable to 127)	7	7 or 12	3	3	3 (Expandable to 6)	5	3
On-board Memory (Max. Events)	20.000	20.	000	20.000	20.000	18.000	18.000	12.000	12.000	18.000	18.000	12.000
AutoLearn™ (Smoke/Flow)	AutoLearn Smoke AutoLearn Flow		rn Smoke arn Flow	AutoLearn Smoke AutoLearn Flow	No	Yes (Smoke)	Yes (Smoke)	Yes (Smoke)	Yes (Smoke)	AutoLearn Smoke AutoLearn Flow	AutoLearn, Smoke AutoLearn, Flow	Yes (Smoke)
Bar Graph / Indicator LED	LEDs or 3.5" Colour Touch Screen	LEDs	LEDs or 3.5" Colour Touch Screen	LEDs or 3.5" Colour Touch Screen	LEDs or 3.5" Colour Touch Screen	Local or Remote (20 segment bargraph display)	Local or Remote (20 segment bargraph display)	Local (5 on- board LEDs). Remote (20 segment bargraph display)	Local (5 on-board LEDs)	Local (7 on- board LEDs 10 Segment Circular Display) Remote display when fitted with VESDAnet card	Local (5 on-board LEDs) Remote display for VLI- 885	As per VLC (VN) and VLC (RO)
Programming Tools - On-board Programming module - Handheld Programmer - PC Software (VSC, VSM)			ammed via USB/ Er ection to PC using		,	Yes	Yes	Yes	Programmed via RS232 direct connection to PC using VSC	Programmed via RS232 direct connection to PC using VSC or Programmer when VN card is fitted	Local USB configuration port Connection to PC using VSC/VSM4 Programmer for VLI-885	As per VLC (VN) and VLC (RO)
StaX Expandability	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No	No
VESDAnet™												
Max. No. of devices/ detectors per loop	200/100	200	/100	200/100	200/100	200/100	200/100	200/100	NA	200/100 (with VN Card)	200/100 (VLI-885)	200/100 (VN version)
Max. Distance between Devices	1.300 m (4.265 ft)		00 m 65 ft)	1.300 m (4.265 ft)	1.300 m (4.265 ft)	1.300 m (4.265 ft)	1.300 m (4.265 ft)	1.300 m (4.265 ft)	N/A	1.300 m (4.265 ft) (with VN Card)	1.300 m (4.265 ft) (VLI-885)	1.300 m (4.265 ft) (VN version)
Computer-based Management via VSM	Yes	Y	es	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes (VN version
Remote Relay Modules - 7 relay version - 12 relay version	VRT-500 N/A		500 /A	VRT-E00 VRT-900	VRT-500 N/A	VRT-500 N/A	VRT-E00 VRT-900	VRT-500 N/A	N/A	VRT-500 N/A	VRT-500 N/A	VRT-500 (VN version)

www.acornfiresecurity.com

		VESDA-E					VESDA			VESDA Indus	strial Products
Features	VEU	VEP VEP-1 VEP-4	VES	VEA	VLP	VLS	VLC (VN)	VLC (RO)	VLF 250/500	VLI	VLC-EX
Compatible Remote Bargraph Displays - Display, 7 relays - Display, 12 relays- Display, no relays	VRT-200 N/A VRT-600	VRT-200 N/A VRT-600	VRT400 VRT-800 VRT-700	VRT-200 N/A VRT-600	VRT-200 N/A VRT-600	VRT-400 VRT-800 VRT-700	VRT-J00 N/A VRT-K00	N/A	VRT-V00 N/A VRT-W00 (with VN Card)	VRT-Q00 N/A VRT-T00 (VLI-885)	As per VLC (VN) and VLC (RO)

 $^{{}^{\}star}\operatorname{System}\operatorname{design}\operatorname{and}\operatorname{regulatory}\operatorname{requirements}\operatorname{may}\operatorname{restrict}\operatorname{the}\operatorname{monitoring}\operatorname{area}\operatorname{to}\operatorname{a}\operatorname{lesser}\operatorname{amount}.$

^{**} Subject to agency testing.

VESDA-E The Next Generation of VESDA Aspirating Smoke Detectors



Innovative Capabilities

VESDA-E is the next-generation of VESDA, featuring multiple innovative capabilities that dramatically improve the VESDA experience: VESDA Smoke+, offers increased sensitivity – up to 15 times greater than VESDA VLP, improved dust rejection, double the longevity while maintaining sensitivity over its lifetime, up to 8% less power consumption per unit area.

- VESDA Flex, future proof expandability and programming for maximum flexibility using, StaX Hardware expansion modules that easily bolt onto the VESDA-E detector to add additional capabilities.
- VESDA Verify, provides situational awareness to improve response time, efficiency and effectiveness by providing up to 120 pinpoint addressability.
- VESDA Connect, allows for flexible networking and programming options that reduce maintenance and monitoring costs through extensive connectivity options and remote diagnostics tools including Ethernet, Wi-Fi, USB. VESDAnet and Relays.
- VESDA TCO, reduces the Total Cost of Ownership (TCO) through Capex value, Opex savings, Plug'n'Play installation, design-less pipe networks, vast monitoring options and backwards compatibility. With VESDA-E you can reduce TCO by up to 15%.

How VESDA-E Works

Air is continually drawn from the protected area through the air sampling pipe network and into the detector by a high efficiency aspirator. The air sampling pipe network can contain up to four pipes. The air from each sampling pipe passes through an airflow sensor and then a sample of the air is drawn into the smoke detection chamber via the sampling module, after first passing through the filter. An additional filter provides clean air to protect the optical surfaces inside the detection chamber from contamination.

The Flair ™ detection chamber uses the equivalent of 330.000 sensors and sophisticated algorithms for smoke detection and particle classification. If the detected smoke is higher than the set alarm thresholds it is reported as an Alert, Action, Fire1 or Fire2 alarm condition. Air is exhausted from the detector and may be vented back into the protected zone. Alarms can be signaled via Relays and VESDAnet. Ethernet and WiFi can be used for configuration and secondary monitoring, and a USB interface is provided for initial setup. A series of LEDs display Alarm, Trouble, Disable and detector power on status. A button allows the user to Reset or Disable the detector. In addition, an optional 3.5" LCD display shows the detector status, including smoke level and a smoke level bar graph, alarm thresholds, trouble status, % airflow level, normalization status and filter life used.



Applications

- Accommodation (Apartments, Hotels, Shops and Offices)
- · Correctional Facilities
- Clean Rooms
- Cold Storage
- Cultural/Heritage
- · Data and Telecom
- · Hospitals and Healthcare
- Insurance

- Marine
- Nuclear Facilities
- Oil and Gas
- Portable Switch Rooms
- Power Generation
- Records Storage
- Transportation
- Wind Power Generation
- Warehousing

VESDA-E Products List

VESDA-E VEU



The VEU series of aspirating smoke detectors are the premium detector of the VESDA-E range. An Ultra-wide sensitivity range; 15 times greater than VESDA VLP, and provision for more sampling holes provide an increased coverage in high airflow applications by at least 40%. Considerably longer linear pipe runs and extended branched pipe network configurations cater perfectly to applications with higher ceilings providing an increased coverage by up to 80% whilst allowing convenient detector mounting for ease of service and maintenance. A range of revolutionary new features provide unsurpassed detection performance, flexibility, field programmability, connectivity and reduced total cost of ownership.

Ordering Codes	Description
VEU-A00	VESDA-E VEU with LEDs, Aluminium Enclosure
VEU-A10	VESDA-E VEU with 3.5" Display, Aluminium Enclosure

Approvals: UL, ULC, CSFM, VdS, CPR, CE, ActivFire, FM, NF, EN 54-20, ISO 7240-20 (Class C (100 holes), Class B (80 holes), Class A (80 holes))

Dimensions: 350 x 225 x 135 mm (13.8 x 8.9 x 5.3 in)

Weight: VEU-A00 - 4.800 kg (10 lbs 9 oz), VEU-A10 - 4.835 kg (10 lbs 10 oz)

Area Coverage: 6.500 m² (69.965 ft²)*

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 deliver absolute calibration for lifetime performance and a range of revolutionary new features that deliver user value

Ordering Codes	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

Approvals: UL, ULC, CSFM, FM, ActivFire, CE, VdS, CPR, EN 54-20, ISO 7240-20

Dimensions: 350 x 225 x 135 mm (13.8 x 8.9 x 5.3 in)

Weight: VEP-A00-P: 4.0 kg (8.8 lb), VEP-A10-P: 4.1 kg (9.1 lb)

Area Coverage: VEP-1P: 1.000 m² (10.760 ft²), VEP-P: 2.000 m² (21.520 ft²)

VESDA-E VES



The VESDA-E VES includes a valve mechanism in the inlet manifold and software to control the airflow from four Sectors (pipes). This configuration enables a single zone to be divided into four separate sectors. The VES enables the user to locate the source of smoke by identifying the first sector to reach the Alert level. The detector then continues to sample from all sectors to monitor fire growth and will report separate alarm levels for each sector. The VES provides four individually configurable alarm levels (Alert, Action, Fire 1 and Fire 2) for each sector allowing optimum protection in a wide range of applications.

Ordering Codes	Description
VES-A00-P	VESDA-E VES with LEDs, Plastic Enclosure
VES-A10-P	VESDA-E VES with 3.5" Display, Plastic Enclosure
VES-A00-P-NF	VESDA-E VES with LEDs, Plastic Enclosure - NF

^{*} System design and regulatory requirements may restrict the monitoring area to a lesser amount

VES-A10-P-NF VESDA-E VES with 3.5" Display, Plastic Enclosure - NF				
Approvals: UL, ULC				
Dimensions: 350 x 225 x 135 mm (13.8 x 8.9 x 5.3 in)				
Weight: VES-A00-P: 4.3 kg (9.5 lb), VES-A10-P: 4.4 kg (9.7 lb)				
Area Coverage: 2.000 m² (21.520 ft²)				

^{*} Pending agency approval. Check with your local regional office for availability.

VESDA-E StaX VESDA-E Power Supply Units are uniquely designed to complement the style and appearance of VESDA-E aspirating smoke detectors (ASD) and are technically matched to provide sufficient current and battery charging capacity to meet the requirement of EN 54-4. The STX variants are VdS approved and CE marked to EN54-4 so are particularly suitable for use in territories where these approvals are required. They may also be suitable in territories where ISO 7240-4 is required. **Ordering Codes** Description 0.5A 7-14AH PSU - STX Black VPS-220-STX Used with VESDA-E VEP and VESDA-E VEU detectors. VPS-250-STX 2A 12-24AH PSU - STX Black Used with VESDA-E VEU detectors for fan speed that exceed 6. VPS-220-STX-SLV 0.5A 7-14AH PSU - STX Silver Used with VESDA-E VEP and VESDA-E VEU detectors. VPS-250-STX-SLV 2A 12-24AH PSU - STX Silver Used with VESDA-E VEU detectors for fan speed that exceed 6.

Approvals:

- VdS: G209140 and G209193
- CE: 0786-CPD-20783 and 0786-CPD-20890
- EN54-4:1997+A1:2002+A2:2006

Note: Batteries are NOT included.

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 spot detectors. VEA uses patented sampling points and multi-channel microbore air-sampling with enhanced or standard alarm sensitivity setting for the sampling points. As a multi-channel addressable system, the VEA detector is able to divide a protected space into sampling locations, enabling the localization of a fire for faster incident response. VEA is suitable for the protection of areas where pinpoint location of fire events is essential, thus providing ideal fire detection solutions for offices, hospitals, schools, prisons, multi-story dwellings, cabinets in data centers and warehouse racks. A wide range of features provide flexibility, enhanced connectivity and reduced total cost of ownership.

Ordering Codes	Description
VEA-040-A00	VESDA-E VEA-40 Detector with LEDs
VEA-040-A10	VESDA-E VEA-40 Detector with 3.5" Display

Approvals: UL, ULC, CSFM, EN 54-20, ISO 7240-20: Class A, B and C, ActivFire, CE, VdS

Dimensions: 352 x 336 x 135.5 mm (13.9 x 13.2 x 5.33 in)

Weight: 12 kg (26.5 lbs)

Area Coverage: 2.000 m² (21.520 ft²)

Note: VEA detector, tubes, and sampling points work as a complete system, it is mandatory to use the

VEA microbore tubes and sampling points with VEA detectors.

VESDA-E VEA 40-Relay Local StaX



The VESDA-E VEA Local Relay StaX allows signaling of alarm location from the detector via relays and provides mounting of fire panel loop input modules inside the enclosure.

Ordering Codes	Description
VER-A40-40-STX	VESDA-E VEA 40-Relay Local StaX

Approvals:

- UL
- ULC
- EN 54-20
- · Major agency approvals pending.

VESDA-E Accessories List

VESDA-E VEA Accessories

Product Name and Image	Ordering Code	Description
	VSP-970	VESDA-E VEA-20 or VEA-40 Mounting Bracket
	VSP-971	VESDA-E VEA-40 Smoke Sensor Module
	VSP-972	VESDA-E VEA Filter (single cartridge)
	VSP-973	VESDA-E VEA Pump
	VSP-974	VESDA-E VEA Rotary Valve
VERSON :	VSP-975	VESDA-E VEA LED Front Panel
WEIGHA .	VSP-976	VESDA-E VEA 3.5" Display Front Panel
	VSP-977	VESDA-E VEA Filter (Pack of 10)
	VSP-978	VESDA-E VEA Sample Point Head Removal Key (Pack of 10)
	VSP-979	VESDA-E VEA Microbore Tube Cutter (Pack of 3)
	VSP-980-ST	VESDA-E VEA Stainless Steel Sample Point
	VSP-1007	VESDA-E VEA VSP-980-ST Sample Point Installation Tool (Pack of 5)
	VSP-1008	VESDA-E VEA VSP-980-ST Sample Point Duct Kit

Product Name and Image	Ordering Code	Description
JESU4	VSP-980-W	VESDA-E VEA 6mm Standard Sampling Point
~	VSP-980-W22	VESDA-E VEA 6mm Standard Sampling Point (Pack of 22)
Alloy see all	VSP-981-W	VESDA-E VEA 4mm Standard Sampling Point
	VSP-981-W22	VESDA-E VEA 4mm Standard Sampling Point (pack of 22)
JE5041	VSP-980-B	VESDA-E VEA 6mm Black Sampling Point
	VSP-980-B22	VESDA-E VEA 6mm Black Sampling Point (pack of 22)
OND HAVE	VSP-981-B	VESDA-E VEA 4mm Black Sampling Point
	VSP-981-B22	VESDA-E VEA 4mm Black Sampling Point (pack of 22)
	VSP-982-W	VESDA-E VEA 6mm Surface Mount Sampling Point
	VSP-982-W22	VESDA-E VEA 6mm Surface Mount Sampling Point (pack of 22)
	VSP-983-W	VESDA-E VEA 4mm Surface Mount Sampling Point
	VSP-983-W22	VESDA-E VEA 4mm Surface Mount Sampling Point (pack of 22)
	VSP-982-B	VESDA-E VEA 6mm Surface Mount Black Sampling Point
	VSP-982-B22	VESDA-E VEA 6mm Surface Mount Black Sampling Point (pack of 22)
	VSP-983-B	VESDA-E VEA 4mm Surface Mount Black Sampling Point
	VSP-983-B22	VESDA-E VEA 4mm Surface Mount Black Sampling Point (pack if 22)
	VSP-990	VESDA-E VEA 6mm Microbore Tube UL-compliant Plenumrated, 1000 ft
	VSP-991	VESDA-E VEA 4mm Microbore Tube UL-compliant Plenumrated, 500 ft
	VSP-998	VESDA-E VEA 6mm Blanking Plug (pack of 50)
digitalism by personal	VSP-1000	VESDA-E VEA 6mm to 4mm Reducer (pack of 10)
distance on the same of	VSP-1001	VESDA-E VEA 6mm to 6mm Straight Union (pack of 10)
	VSP-1002	VESDA-E VEA 4mm to 4mm Straight Union (pack of 10)
0	VSP-1003	VESDA-E VEA 6mm to 6mm Right Angle Joiner (pack of 10)
	VSP-1004	VESDA-E VEA 4mm to 4mm Right Angle Joiner (pack of 10)

VESDA-E VEU/VEP/VES Accessories

Product Name and Image	Ordering Code	Description
	VSP-955	VESDA-E VES Scanner Manifold Spare
· • •	VSP-960	Mounting bracket
	VSP-961	VESDA-E Exhaust Adaptor US
7	VSP-962	VESDA-E VEU/VEP/VES Filter (single cartridge)
	VSP-962-20	VESDA-E VEU/VEP/VES Filter (pack of 20 cartridges)
	VSP-963	VESDA-E Aspirator
	VSP-964	VESDA-E Smoke Detection Chamber
	VSP-964-03	VESDA-E Smoke Detection Chamber - MK3
	VSP-965	VESDA-E Sampling Module
. VESOA :	VSP-966	VESDA-E VEU-A00 Front Cover with LEDs
Vesoa =	VSP-967	VESDA-E VEU-A10 Front Cover with 3.5" Display
VESCA	VSP-968	VESDA-E VEP-A00-P/1P Front Cover Plastic with LEDs
VESSA.	VSP-969	VESDA-E VEP-A10-P Front Cover Plastic 3.5" Display
	VSP-969-S	VESDA-E VES-A10-P Front Cover Plastic (3.5" Display)

VESDA-E Demo Kits

Ordering Code	Description			
VKT-800	VESDA-E VEU-A10 Demo Kit			
VKT-850	VESDA-E VEP Demo Kit			
VKT-855	VESDA-E VES Demo Kit			
VKT-900	VESDA-E VEA Demo Kit			

Batteries and Power Supplies

VESDA-E VEA Power Supply

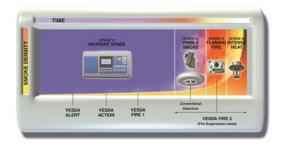
	VPS-VEA-115UL	VPS-VEA-230UL					
	◆ xtralis						
Nominal AC Supply Voltage	120VAC/2.0A/60Hz 230VAC/1.0A/50Hz						
Output Current	27VDC/2.8A Continuous 27VDC/5A Alarm						
Dimensions (H x W x D)	438 mm x 330 mm x 142 mm (17.25 in. x 13 in. x 5.6 in.)						
Weight	5.9Kg (13lbs) without batteries						

VESDA Aspirating Smoke Detection



The World's leading ASD Brand

VESDA very early warning smoke detection solutions provide the earliest possible warning of an impending fire hazard. VESDA buys time to investigate an alarm and initiate an appropriate response to prevent injury, property damage or business disruption. And because VESDA has the industry's widest sensitivity range and multi-level warnings, even minute levels of smoke can be detected before a fire has time to escalate. As the leading ASD brand specified by fire professionals around the world, VESDA is synonymous with reliable, high performance fire detection.



This diagram shows the progression of a fire over time. Note that the incipient stage of a fire provides the widest window of opportunity to detect and control the spread. VESDA detectors can be configured to generate multiple alarms within the incipient stage. They also can be configured to generate an additional alarm (Fire 2) in the advanced stages of a fire. This feature is unique to VESDA and takes advantage of its wide sensitivity range that enables one detector to monitor the entire progression of a fire.

- Accommodation (Apartments, Hotels, Shops and Offices)
- Correctional Facilities
- Clean Rooms

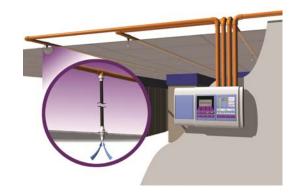
Applications

- Cold Storage
- Cultural/Heritage
- Data and Telecom
- Hospitals and Healthcare
- Insurance

How VESDA Works

VESDA works by continuously drawing air into a distributed pipe network via a high-efficiency aspirator. The air sample then passes through a dual-stage filter. The first stage removes dust and dirt from the air sample before it enters the laser detection chamber. The second, ultra-fine stage provides an additional clean-air supply to keep the detector's optical surfaces free from contamination, ensuring stable calibration and long detector life as well as minimizing nuisance alarms.

From the filter, the air sample goes through the calibrated detection chamber where it is exposed to a laser light source. When smoke is present, light is scattered within the detection chamber and is instantly identified by the highly sensitive receiver system. The signal is then processed and presented via a bar-graph display, alarm threshold indicators and/or graphic display. VESDA detectors are able to communicate this information to a fire alarm control panel, a software management system, or a building management system via relays or a High Level Interface (HLI).



- Marine
- Nuclear Facilities
- Oil and Gas
- Portable Switch Rooms
- Power Generation
- Records Storage
- Transportation
- Wind Power Generation
- Warehousing

VESDA Products List

VESDA VLP



Central element of the ASD product range. VESDA VLP is classed as a "Very Early Warning Smoke Detector", which means that it detects fire at the earliest possible stage and reliably measures very low to extremely high concentrations of smoke. Has an alarm sensitivity range of 0.005%–20% obs/m (0.0015%–6.25% obs/ft).

All detectors include a head termination card with 7 relays (HTC7) and a socket.

Ordering Codes	The ordering code for VESDA VLP is VLP-XXX X. The below table explains the available components of the detector and their positions:							
VLP	X		X		X		X	
	0	Blank plate	0	Blank plate	0	Blank plate	0	Standard detector orientation
	4	FOK: Fire 1 Alarm and OK (FOK) LEDs	1	Programmer mounted in the middle	1	Programmer mounted in the far right position	1	Inverted Detector Orientation
			2	Display mounted in the middle	2	Display mounted in the far right position		

Standard ordering codes:

	y
VLP-002	VLP detector with two blank plates and a standard Display module. The Display module is mounted in the far right position.
VLP-012	VLP detector with a centrally mounted LCD Programmer module and a Standard Display module.
VLP-400	VLP detector only enclosure with three blank plates. The plate in the far left position includes Fire 1 Alarm and OK (FOK) LEDs.
	module. VLP detector only enclosure with three blank plates.

Note:

· Not all combinations can be ordered.

Approvals: UL, ULC, CSFM, FM, ActivFire, CE, CPR, LPCB, VdS, VNIIPO, CFE, NF, EN 54-20 (Class A (30 holes), Class B (60 holes), Class C (100 holes)), UL268A (in-duct application), NY-MEA

Dimensions:350 x 225 x 125 mm (13.8 x 8.9 x 4.9 in)

Weight: 4.0 kg (9 lbs) including Display and Programmer modules

Area Coverage: 2.000 m² (21.520 ft²)

VESDA VLS



Similar to the standard VESDA VLP detector, but also includes a valve mechanism in the inlet manifold and software to control the airflow from the four sectors (pipes). This configuration enables a single VESDA zone to be divided into four separate sectors.

All detectors include a head termination card with 7 or 12 relays and a socket.

Ordering Codes		The ordering code for VESDA VLS is VLS-XXX XX. The below table explains the available components of the detector and their positions:						
VLS			X		X		X	
	2	7 Relay Version	0	Blank plate	0	Blank plate	0	Standard detector orientation
	3	12 Relay Version	1	Programmer mounted in the middle	1	Programmer mounted in the far right position	1	Inverted Detector Orientation
	6	7 Relay w/FOK LED	4	Scanner display mounted in the	4	Scanner display mounted in the far		
	7	12 Relay w/FOK LED		middle		right position		

Standard ordering codes:

	•
VLS-204	VLS detector with two blank plates and a SCANNER Display module. The Display module is mounted in the far right position. 7 Relay version.
VLS-214	VLS detector with a centrally mounted LCD Programmer module and a SCANNER Display module. 7 Relay version.
VLS-304	VLS detector with two blank plates and a Scanner Display module.
120 00 .	The Display module is mounted in the far right position. 12 Relay version.
VLS-314	VLS Detector with a centrally mounted LCD Programmer module and a Scanner Display
	module. 12 Relay version.
VLS-600	VLS detector only enclosure with three blank plates.
	The plate in the far left position includes FIRE 1 Alarm for any sector and OK (FOK) LEDs.
	7 Relay version.
VLS-700	VLS detector only enclosure with three blank plates.
	The plate in the far left position includes FIRE 1 Alarm for any sector and OK (FOK) LEDs.
	12 Relay version.
	the state of the s

Note:

· Not all combinations can be ordered.

Approvals: UL, ULC, CSFM, FM, ActivFire, CE, CPR, LPCB, VdS, VNIIPO, NF, EN 54-20 (Class A (40 holes), Class B (40 holes), Class C (60 holes)), UL268A (in-duct application), NY-MEA, CCC

Dimensions:350 x 225 x 125 mm (13.8 x 8.9 x 4.9 in)

Weight: 4.0 kg (9 lbs) including Display and Programmer modules

Area Coverage: 2.000 m² (21.520 ft²)

VESDA VLC



Specifically designed to provide all the benefits of aspirating smoke detection, including very early warning, in single environment medium areas and where space is a premium. The VLC combines the well-proven detection technology with a modified aspirator design, and incorporates them into a compact enclosure with a simplified display.

Ordering Codes	Description
VLC-500	VESDA VLC Relay Only Version, 3 levels of Alarm provided, adjustable sensitivity. Directly programmable with Xtralis VSC software via a serial link connection.
VLC-505	The VN version utilises VESDA Programmers including Hand Held, Remote Mount, Rack Mount versions or PC Link HLI connected to a PC running Xtralis VSC/Xtralis VSM4 software.
VLC-400	VESDA VLC Detector (Apollo Version) This variant of the VLC transmits an analogue signal to any XP95 or Discovery compatible fire panel.

Approvals: UL, ULC, CSFM, FM, ActivFire, CE, CPR, LPCB, VdS, VNIIPO, NF, EN 54-20 (Class A (30 holes), Class B (36 holes), Class C (40 holes)), UL268A (in-duct application), NY-MEA, CCC

Dimensions: 225 x 225 x 85 mm (8.85 x 8.85 x 3.34 in)

Weight: 1.9 kg (4.2 lbs.)

Area Coverage: 800 m² (8,610 ft²)

VESDA VLC Marine



The VESDA VLC Marine by Xtralis is a tested and certified aspirating smoke detector for use in marine environments. The VESDA VLC Marine aspirating smoke detector is available in two versions, one that interfaces via relays only (RO) and one that interfaces via relays and VESDAnet (VN).

Ordering Codes	Description
VLC-50000-MRN	VLC - Marine RO
VLC-50500-MRN	VLC - Marine VN

Approvals:

- UL
- DNV Type Approval certificate: A-13709.
- DNV Location classes:
 - Temperature (D), Humidity (B), Vibration (A), Electromagnetic Compatibility (B), Ingress protection (IP30) or (IP66) with optional enclosure.
 - Environmental tests have been performed according to Lloyd's Register Specification 1 (2002) for environmental categories ENV1, ENV2, and ENV3.

Dimensions:225 x 225 x 85 mm (8.85 x 8.85 x 3.34 in)

Weight: 1.9 kg (4.2 lbs.)

Area Coverage: 800 m² (8,610 ft²)

VESDA VLC-EX



Specifically designed to provide all the benefits of aspirating smoke detection, including very early warning, for the protection of hazardous applications with Zone 2 classification.

Approvals:

Hazardous Area Approval (FM Class 1, Div 2, Groups A, B, C, D)

UL

ULC

FMATEX: II 3G

EN 60079-0:2009 and EN 60079-15:2010

Ex ic nA nC IIB T5 Gc IP54

-10°C ≤ Ta ≤ +55°C

Certificate No: ITS 14 ATEX 48089X

QAN: ITS 11 ATEX Q7454

IECEx: II 3G

IEC 60079-15 Ed4.0 and IEC 60079-0 Ed6.0

Ex ic nA nC IIB T5 Gc IP54

-10°C ≤ Ta ≤ +55°C

Certificate No: IECEx ITS 14.0050X QAR: GB/ITS/QAR 11.0016/00

Dimensions: 268 x 268 x 97 mm (10.5 x 10.5 x 3.8 in.)

Weight: 4.9 kg (10.8 lbs)

Area Coverage: 800 m² (8,610 ft²)

VESDA VLF-250



A very early warning smoke detector designed to protect small, business-critical environments of less than 250 m² (2,690 ft²).

Ordering Codes	Description
VLF-250-01	VESDA VLF. European language set. International display labels
VLF-250-02	VESDA VLF. English + Asian language set. International display labels

Approvals: UL, ULC, CSFM, FM, ActivFire, CE, CPR, LPCB, VdS, VNIIPO, NF,EN 54-20 (Classes A (12 holes), B (12 holes), C (12 holes)), UL268A (in-duct application), NY-MEA, CCC

SIL 2 as per IEC 61508 (2010) only for Rail Applications

Dimensions: 256 x 183 x 92 mm (10 x 7 x 3 in)

Weight: 2 kg (4.4 lbs)

Area Coverage: 250 m² (2,690 ft²)

VESDA VLF-500



A very early warning smoke detector designed to protect small, business-critical environments of less than 500 m² (5,380 ft²)

Ordering Codes	Description	
VLF-500-01	VESDA VLF. European language set. International display labels	
VLF-500-02	VESDA VLF. English + Asian language set. International display labels	
VLF-500-SIE	VESDA VLF Siemens version	

Approvals: UL, ULC, CSFM, FM, ActivFire, CE, CPR, LPCB, VdS, VNIIPO, NF,EN 54-20 (Classes A (30 holes), B (30 holes), C (30 holes)), UL268A (in-duct application), NY-MEA, CCC SIL 2 as per IEC 61508 (2010) only for Rail Applications

Dimensions: 256 x 183 x 92 mm (10 x 7 x 3 in)

Weight: 2 kg (4.4 lbs)

Area Coverage: 500 m² (5,380 ft²)

VESDA VLI



The VESDA VLI is an industry first early warning aspirating smoke detection system, designed to protect industrial applications up to 2.000 m² (21.520 ft²). The VLI detector combines a patented fail-safe Intelligent Filter with Clean Air Zero and cleanair barrier for optics protection complementing absolute detection and providing longer detection chamber life all enclosed in a robust IP66-rated enclosure.

Ordering Codes	Description	
VLI-880	VESDA VLI Detector	
VLI-885	VESDA VLI with VESDAnet	

Approvals: UL, ULC, FM, ActivFire, CE, VdS, LPCB, NF, SIL 2 as per IEC 61508, EN 54-20 (Class A (24 holes), Class B (28 holes), Class C (60 holes))

Dimensions: 426.5 x 316.5 x 180 mm (16.8 x 12.5 x 7.1 in)

Weight: 6.035 kg (13.3 lbs)

Area Coverage: 2.000 m² (21.520 ft²)

VESDA Accessories List

Remote Mount Configuration (VRT) - Single Box

Product Image	Ordering Code	Description
Veston	VRT-100	Programmer. Includes remote termination card with no relays.
	VRT-200	VESDA VLP with a remote termination card. Display. 7 Relays
And the state of	VRT-600	VESDA VLP with a remote termination card. Display. No Relays
	VRT-400	VESDA VLS Display with a remote termination card. 7 Relays
	VRT-700	VESDA VLS Display with a remote termination card. No Relays
	VRT-800	VESDA VLS Display with a remote termination card. 12 Relays
	VRT-W00	VESDA VLF Display with a remote termination card. No Relays
AND THE PARTY OF T	VRT-V00	VESDA VLF Display with a remote termination card. 7 Relays
	VRT-J00	VESDA VLC Display with a remote termination card. 7 Relays
**************************************	VRT-K00	VESDA VLC Display with a remote termination card. No Relays
1 m our 1 m ou	VRT-T00	VESDA VLI Display with a remote termination card. No Relays
	VRT-Q00	VESDA VLI Display with a remote termination card. 7 Relays
	VRT-300	For remote connection to the VESDAnet.
	VRT-500	Includes blank plate with a remote mounting box. 7 Relays version for VLP, VLF, or VLC
0	VRT-E00	Includes blank plate with a remote mounting box. 7 Relays version for VLS
	VRT-900	Includes blank plate with a remote mounting box. 12 Relays version for VLS
	VRT-S07	A remote termination card with new software supplied in a remote mounting box (VRT); it allows reporting of ANY alarm or fault condition that appears on a VESDAnet loop regardless of the initiating zone.
10 part 12 par	VRT-J0000-MRN	Remote Display – VESDA VLC Marine

Note: All configurations include the remote mounting box, and are identifiable from a standard remote mounting box by the text on the blue cover. They can also be distinguished by the part number on the ratings label that appears on the bottom of the unit.

Sub Rack Configurations (VSR)



The VESDA Sub Rack can be configured in thousands of different ways.

To configure, choose a module for each of the four positions shown below. The modules will be assembled in the configuration you specify, from left to right. Position 1 is the far left position, while Position 4 is the far right. The Sub Rack mounts on any standard 19" rack. Sub rack enclosures are also available.

Sub Rack configurations include the options for both "front" and "back" modules.

- Front module: is a display, programmer, or VESDAnet socket.
- Back modules: are remote termination cards with a variety of relay options.

To configure your Sub Rack, use the matrix that follows.

The "Empty" Sub Rack: VSR - 0000 is a 19" Sub Rack without remote modules. Once modules are added, the part number will change as appropriate. VSR - 0000 has four positions for modules. Select a module for each position from the matrix below.

Pre-configured examples:



VSR - 2100: 19" Sub Rack with 1 Standard Display with 7 - relay remote termination card in position 1 and a Programmer in position 2. Blank plates are in position 3 and 4.

VSR - 4423: 19" Sub Rack with: 2 Scanner Displays with 7 - relay remote termination cards in positions 1 and 2. A Standard Display with 7 - relay remote termination card occupies position 3 and a VESDAnet Socket is in position 4.

VSR Spare Modules

- 1. All programmers and displays require remote termination cards.
- 2. Every relay termination card requires a display or relay processor board.
- 3. If you are using the sub rack for remote relays only, you must have a relay processor board in each position that has a relay.

Ordering Code	Description		
VSR-1	Programmer with remote termination card - no relays		
VSR-2	Standard display with 7 relay remote termination card		
VSR-3	VESDAnet Socket		
VSR-4	Scanner display with 7 relay remote termination card		
VSR-5	7 relay remote termination card and relay processor		
VSR-6	Standard display with remote termination card - no relays		
VSR-7	Scanner display with remote termination card - no relays		
VSR-8	Scanner display with 12 relay remote termination card		
VSR-9	2 relay remote termination card and relay processor		
VSR-A	Programmer sharing adjacent termination card		
VSR-J	VLC VN Display with 7 relays		
VSR-K	VLC VN display with no relays		
VSR-Q	VLI display with 7 relays		
VSR-T	VLI display with no relays		
VSR-V	VLF display with 7 relay remote termination card		
VSR-W	VLF display without relays		

VESDAnet and Relay Cards

Product Name and Image	Ordering Code	Description
VESDAnet Network Interface Card	VIC-010	A simple interface card for the range of VESDA VLF smoke detectors. The VN Card provides seamless VESDAnet communication from the detector to other VESDAnet devices, including configuration and monitoring tools.
VESDAnet multi-function Control Card	VIC-020	Provides additional 2 relays and 1 General Purpose Output (GPI). For VESDA VLF
VESDAnet Network Interface Card with MPO	VIC-030	VESDA multi-function Control Card with Powered Output (MPO). Provides all the features of the VIC-020 with an additional Relay which can be programmed as a Monitored Powered Output. For VESDA VLF

Programming Options



The PC - Link High Level Interface (PC - Link HLI) connects a PC and VESDA system. Each PC - Link HLI includes two cables (It does not include a PC):

- RS232 from HLI to PC Com port
 RS485 from HLI to VESDAnet Socket

Product Image	Ordering Code	Description
VESDA	VHH-100	Hand held Programmer including Lead for temporary connection of a programmer to a network via a VESDAnet socket.
	VHX-0200	Sliding Windows RS232 Interface For Xtralis VSM4 and Xtralis VSC Software
	VHX-0210	Sliding Windows With Dial In/Dial Out functionality
and the same of th	VHX-0300	Open Protocol Peer to Peer High level Interface. RS232 Interface for connection to a BMS or Fire Panel
	VHX-0310	Open Protocol Master - Slave High level Interface. RS232
	VHX-0320	VESDA Access HLI Standard
	VHX-0420	VESDA Modbus Type 3 HLI Standard
	VHX-1200	Wall-mounted HLI. Links VESDAnet with Xtralis VSM4 and Xtralis VSC. Includes a buitl-in VESDAnet port and VESDAnet socket card.
	VHX-1300	Wall-mounted Open Protocol Peer-to-Peer
And the second	VHX-1310	Wall-mounted Open Protocol Master-Slave
	VHX-1320	VESDA Access HLI Metal Box Wall-mounted
	VHX-1420	VESDA Modbus Type 3 HLI Metal Box Wall-mounted

Spare Parts/Modules

Part Number	Description		
VSP-000	Blank plate, with VESDA logo		
VSP-001	Programmer Module		
VSP-002	VLP Display Module		
VSP-003	VESDAnet Socket kit		
VSP-004	VESDA VLS Display Module		
VSP-005	Filter assembly		
VSP-007	Remote Termination Card No Relays (RTC0)		
VSP-008	Remote Termination Card 7 Relays (RCT7)		
VSP-009	VESDA VLS Chassis Assembly, includes Scanning Manifold		
VSP-011	Recess Mounting Kit for VESDA VLP or VESDA VLS Detector		
VSP-012	Recess Mounting Kit for remote single boxes		
VSP-013	Detector Cover Assembly with EMC Shields		
VSP-014	7 Relay Head Termination Card (HTC7) - for VESDA VLP		
VSP-015	Aspirator for VESDA VLP and VESDA VLS		
VSP-016	12 Relay Head Termination Card (HTC12)		
VSP-018	Filter Switch		
VSP-019	Filter Cover		
VSP-020	VLP and VLS Screw Covers - Pack of 2		
VSP-021	Metric to Imperial Pipe Adapters, Kit of 4		
VSP-022	Mounting box detector		
VSP-023	VLC VN front cover		
VSP-024	VLC RO front cover		
VSP-025	Filter Cartridge - Pack of 20		
VSP-100	Blank Plate with FOK LEDs and Logo		
VSP-102	Non Scanner relay processor module (DRP). Required if remote relays are used with no display.		
VSP-103	Scanner relay processor Module (DRP). Required if remote relays are used with no display		
VSP-200	Blank Plate, EMC painted, without Logo		
VSP-208	12 Relay Remote Termination Card (RCT12) - for VESDA VLS		
VSP-501	Aspirator, VESDA VLC		
VSP-502	Compact (VN) Remote Display Module		
VSP-509	Computer lead for use with VESDA VLC Relay Only (RO) & VLF Version		
VSP-510	Compact (RO) Termination Card (CTC-RO) - for VESDA VLC		
VSP-511	VESDAnet RS-485 15-way cable		
VSP-515	Compact (VN) Termination Card (CTC-VN) - for VESDA VLC		
VSP-540	Exhaust Deflector, Black, for use with VESDA VLP, VESDA VLS and VESDA VLC		
VSP-715	VLF Aspirator		
VSP-722	VESDA VLF-250 Aspirator Assembly (1 fan)		
VSP-820	ASD Purge Unit - Single Channel		
VSP-850-G	Xtralis In-Line Filter - Gey		
VSP-850-R	Xtralis In-Line Filter - Red		
VSP-855-4	Xtralis In-Line Filter Elements - pack of 4		

Part Number	Description	
VSP-855-20	Xtralis In-Line Filter Elements - pack of 20	

Batteries and Power Supplies

Power Supplies - all countries

	VPS-220-E	VPS-215-E	VPS-250-E
Nominal AC Supply Voltage	230 Vac (tested +10%—15%)		
Output Voltage	19.5-30 VDC	19.5-30 VDC	19.5-30 VDC
Load	0.5 / 1.0 amps (1 amp not EN54-4)		2 / 3 amps (3 amps not EN54-4)
Dimensions (H x W x D)	225 x 351 x 110 mm	226 x 286 x 113 mm	352 x 455 x 182 mm
Weight	3 kg (without batteries) 14 kg (with max batteries)	2.5 kg (without batteries) 8 kg (with max batteries)	7 kg (without batteries) 35 kg (with max batteries)

	VPS-220-U	VPS-215-U	
Nominal AC Supply Voltage	230 Vac (+10% / -15%) @ 0.6 A factory default setting 110 Vac (+10% / -15%) @ 1.2 A field selectable option		
Output Current	0 A (EN 54-4 1 min.) 0.5 A (EN 54-4 1 max. a) 1.9 A (EN 54-4 1 max b)		
Load	0.5 / 1.0 amps (1 amp not EN54-4)	0.5 / 1.0 amps	
Dimensions (H x W x D)	225 x 350 x 105.2 mm 225 x 285 x 115.2 mm		
Weight	3.6 kg (without batteries) 14.2 kg (with max batteries)	2.95 kg (without batteries) 8.25 kg (with max batteries)	

Note: * VBC-001 is a battery cabinet that takes up to 4 batteries, 12 Vdc, 12 Amp/h.

	VPS-100US-220	VBC-001 *
Nominal AC Supply Voltage	120 VAC	-
Output Voltage	27.6 VDC (Nominal)	-
Load	1.5 Amps (max.)	-
Dimensions (H x W x D)	13.9 x 9. x 4.5 in.	13.9 x 9 x 4.5 in.
Weight	10 lbs. without batteries	6 lbs. without batteries

	VPS-300US-120 *	VPS-300US-220 *
Nominal AC Supply Voltage	120 VAC	220 VAC
Output Current	1.5 An	nps (max.)
Load	0.5 / 1.0 amps (1 amp not EN54-4)	0.5 / 1.0 amps

Note: * Each VPS-300US-120 or VPS-300US-220 power supply is a VPS-100US-XXX power supply plus the VBC-001 battery cabinet.

VESDA Demo Kits

Ordering Code	Description
VKT-001	VESDA VLP Demo Kit for Australia, New Zealand, Asia

www.acornfiresecurity.com

VKT-002-US	VESDA VLP VKT-002 Sales Demo Kit, includes VLP-012
VKT-004-US	VESDA VLC VKT-004 Sales Demo Kit, includes VLC-505
VKT-020	VESDA VLF-250 demo unit only. Demo unit with power connector plug installed and short length of pipe, elbow, end cap and two pipe labels. Euro language.
VKT-020-US	VESDA VLF VKT-020 Sales Demo Kit, includes VLF-250
VKT-021	VESDA VLF Demo Kit, International and Euro 1
VKT-022	VESDA VLF Demo Kit, International and Asian 1
VKT-050	VESDA VLF-500 demo unit only Demo unit with power connector plug installed and short length of pipe, elbow, end cap and two pipe labels.
VKT-050-US	VESDA VLF VKT-050 Sales Demo Kit, includes VLF-500
VKT-051	VLF-500 Intl/Euro Demo Kit
VKT-50500	Dual 19" SR 3 HLIs - Europe

ICAM Flexible Aspirating Smoke Detection



High-sensitivity Aspirating Smoke Detection Systems

ICAM by Xtralis detectors excel in area coverage and powerful performance and are suited to a host of applications – stand-alone or networked – in the most demanding environments.

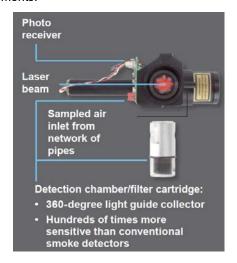
Our state-of-the art detectors, built for flexibility and dependability, are found in power stations, telecommunication sites, mines, IT facilities, LCD fabs, semiconductor clean rooms, prisons, warehouses, cold storage rooms, harsh and hazardous areas, trains, historic buildings, museums and even in residences.

The ICAM range provides powerful diagnostic information and communication with monitoring, programming, graphics and control of all detector functions fully accessible from virtually anywhere.

Approved worldwide and manufactured according to the strictest ISO 9000 quality control procedures, the ICAM range includes both aspirating point detectors and very high-sensitivity ASD systems.

How ICAM Works

The ICAM IFT high-sensitivity ASD is an instrument-quality nephelometer collecting scattered laser light from smoke particles over a full 360-degree sweep. The resulting sensitivity is 0.001% obs/m (0.0003% obs/ft), which is several hundred times more sensitive than conventional smoke detectors. This sensitivity, coupled with advanced processing and filtration, enables ICAM IFT systems to be used in the world's most demanding applications and environments.



Applications

- Accommodation (Apartments, Hotels, Shops and Offices)
- Correctional Facilities
- Clean Rooms
- Cold Storage
- Cultural/Heritage
- Data & Telecom
- · Hospitals and Healthcare
- Insurance

- Marine
- Nuclear Facilities
- Oil & Gas
- · Portable Switch Rooms
- Power Generation
- Records Storage
- Transportation
- Wind Power Generation
- Warehousing

ICAM Products List

ICAM IAS



ICAM IAS Detectors are Point In A Box (PIAB) Aspirating Smoke Detection (ASD) solutions that incorporate conventional or analog addressable point detectors and meet the unique needs of many commercial and industrial applications. IAS applications are wide and varied including but not limited to roof spaces, under floor voids, elevator shafts and ducts, to name a few.

Ordering Codes	Description
IAS-1	IAS Aspirating Smoke Detector - Single Channel
IAS-2	IAS Aspirating Smoke Detector - Dual Channel
IAS-1-AU	IAS Aspirating Smoke Detector - Single Channel for Australia
IAS-2-AU	IAS Aspirating Smoke Detector - Dual Channel for Australia

Approvals: ActivFire, CE - EMC and CPR, EN54-20 (VdS) with certified point detector fitted. Class dependent upon point detector fitted.

Dimensions: 259 x 184 x 166 mm (10.2 x 7.2 x 6.5 in.)

Weight: 5 Kg (11 lbs)

Area Coverage: 2.000 m² (21.520 ft²)

Note:

Point detectors are ordered from their manufacturer/supplier; while baffles are ordered separately from Xtralis depending on the point detector type.

ICAM IFT-P



The ICAM IFT-P detector is an air-sampling system with an alarm sensitivity range from 0.001% to 20% obs/m (0.0003% to 6.10% obs/ft). This detector is classified as a Very Early Warning Smoke Detector that can reliably detect fire at an early stage, and low to high concentrations of smoke over an area of up to 2.000 m² (21.520 ft²).

Ordering Codes	Description
IFT-PT	IFT-P 24 VDC with TCP/IP

Approvals: FM, UL, ULC, VdS, NF, CCCF, CE - EMC, LVD, and CPR, EN54-20 (Class A (12 holes), Class B (36 holes), Class C (36 holes))

Dimensions: 254 x 180 x 165 mm (10.0 x 7.1 x 6.5 in.)

Weight: 5 Kg (11 lbs)

Area Coverage:

- 2.000 m² (21.520 ft²) for VdS installations
 1.600 m² (17.200 ft²) for NF installations
 850 m² (9.150 ft²) for UL installations
- **ICAM Accessories List**

Repeaters and I/O Modules

Ordering Code	Description
01-E920-01	Conversion Kit For Remote Display: Case, Black Plate and Fit

Spare Parts/Modules

Part Number	Description
ISP-400	IAS-1 Display Kit
ISP-401	IAS-2 Display Kit
ISP-402	ILS-1 Display Kit
ISP-405-00	IAS/ILS Aspirator (non-EN)
ISP-405-01	IAS/ILS Aspirator (EN)
ISP-406	IAS/ILS Cover removal tool
ISP-407	IAS/ILS Corner Studs (pack of 4)
ISP-408	IAS/ILS Flow Sensor Assembly

Baffles

Part Number	Description
06-0000	Blanking Baffle (pack of 10)
06-AD10	Baffle for Tyco detector MX 801PH, MX 830PH, FC 460PH, MX 850PH (pack of 10)
06-AG10	Baffle for Argus Sagittarius SG100 (pack of 10)
06-AP10	Baffle for Apollo detector Discovery optical, S65 & XP95, UTC Fire and Security DP 652, DP 951, DP 991 (pack of 10)
06-DT10	Baffle for Detectomat detector CT 3000 O, PL 3200 O & PL 3300 O (pack of 10)
06-GE20	Baffle for UTC Fire and Security detector DP 721I & DP 2061 (pack of 10)
06-GT10	Baffle for Gent detector S4-710 OH, S4-911 O2HCO & S4-901 O2HCO using S4-700 base (pack of 10)
06-HK10	Baffle for Hochiki detector SLR-E3, ALK-V & ALG-E (pack of 10)
06-HK30	Baffle for Hochiki detector ALN-EN and ALN-V(H) using YBN-R/3 base (pack of 10)

www.acornfiresecurity.com

06-HK40	Baffle for Hochiki detector SLV-24V (pack of 10)
33-111(40	Ballie for Frooring detector of v 24 v (pack of 10)
06-SS10	Baffle for System Sensor detector 7251EM, 2251EM, LZR1-M and Notifier FSL-7251E View (pack of 10)
06-SS11	Baffle for System Sensor detector 2251EM, 7251 Pinnacle, LZR1-M, FSL-751E, SDX 751 using B5241EFT Isolator Base (pack of 10)
06-SM10	Baffle for Siemens FDOOTC241 and FDOOT241-A9 with FDB222 base (pack of 10)
06-SM20	Baffle for Siemens OOH740 with DB722 base without Base Seal (pack of 10)

Note: The listed baffles are for detectors fitted to standard mounting bases only unless otherwise stated.

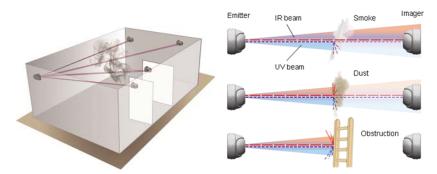
OSID Open-area Smoke Imaging Detection



OSID-DE Dual-ended smoke imaging detector

The dual-ended, OSID-DE (OSI-10 and OSI-90), combines dual frequency (IR and UV) beams with a CMOS Imager detector. OSID operates in both pitch dark as well as bright sunlight. With this new award winning technology also comes; high tolerance to vibration and structural movement as well as good resistance to transient dust, fogging, steam, reflections and object intrusion. On-board log memory for diagnostic purposes completes the picture. The OSI-90 Imager (receiver) can have up to seven emitters and provides easy 3D coverage for atria, domes etc. Fast and easy installation is an extra perk.

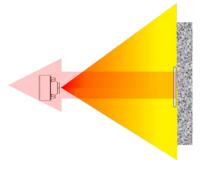
True spatial detection



OSID-R

Reflective smoke imaging detector

OSID-R is a single IR beam using also a CMOS imager for signal analysis which provides greater levels of information for better decision making than any simple and basic IR photocell receiver technology. It features good tolerance to structural movement, reflections and object intrusion.



Applications

- Shopping Malls
- Long Corridors
- Airport Terminals and Train Stations
- Heritage Buildings
- Suspended Ceilings
- Challenging Logistics

- · Indoor Stadiums and Arenas
- Dirty Environments
- · Hotel and Office-tower Atriums
- Churches and Cathedrals
- Exhibition and Convention Centers
- Industrial and Manufacturing Facilities

OSID Products List

OSID-DE



OSID-DE is a new innovation in projected beam smoke detection technology. By using advanced dual wavelength projected beams and optical imaging technology for early warning smoke detection, OSID provides a low-cost, reliable and easy-to-install solution that overcomes typical beam detection issues such as false alarm incidents and alignment difficulties.

Ordering Codes	Description
OSI-10	Imager - 7° coverage
OSI-90	Imager - 80° coverage
OSE-SP-01	Emitter - Alkaline Battery
OSE-SPW	Emitter - Standard Power, Wired
OSE-HPW	Emitter - High Power, Wired
OSE-HP-01	Emitter - High Power, Alkaline Battery

Approvals: UL, ULC, CSFM, FM, NF, CFE, CE - EMC and CPR, VdS, ActivFire, BOSEC

Dimensions: 208 x 136 x 96 mm (8.19 x 5.35 x 3.78 in.)

Weight: Imager: 610 g., Emitter (battery powered): 1.2 kg, Emitter (wired): 535 g

Area Coverage: 2.000 m² (21.520 ft²)

OSID-R



OSID-R is a new innovation in reflective beam smoke detection technology. It's using a single IR wavelength projected beam and optical imaging technology for smoke detection. OSID-R provides a low cost, reliable and easy-to-install solution that minimizes typical beam detection issues such as false alarm incidents and alignment difficulties.

Ordering Codes	Description
OSI-R	Conventional imaging smoke beam smoke detector including reflector - UL approved
OSI-RA	Conventional imaging smoke beam smoke detector including reflector - ULC approved

Approvals: UL, ULC, CSFM, FM

Dimensions: 152.4 x 254 x 114.3 mm (6 x 10 x 4.5 in.)

Weight: 1.12 kg (2.48 lbs)

Area Coverage: 1800 m² (19368 ft²)

OSID Accessories List

OSID-DE Accessories

Product Name and Image	Ordering Code	Description
	OSID-INST	OSID Installation Kit
	OSID-EHE	Emitter environmental housing IP66
.	OSID-EHI	Imager environmental housing IP66
	OSP-001	FTDI Cable 1.5m
	OSP-002	Laser Alignment tool
	OSID-WG	Wire Guard for Imager and Emitter
	OSE-RBA	Spare alkaline battery pack for Emitter units
	OSE-RBL	Replacement Lithium Ion Kit
	OSE-ACF	Anti-condensation film for Emitters
	OSEH-ACF	Anti-condensation film for OSID-EHE and OSID-EHI environmental housings
	OSP-003	Acrylic test filter - 10 pack
	OSP-003- 200	Acrylic test filter - bulk pack 200 units

www.acornfiresecurity.com

Product Name and Image	Ordering Code	Description
· · · · · · · · · · · · · · · · · · ·	RTS151KEY	Imager Reset Station Flush Mount
	RTS151KIT	Imager Reset Station Surface Mount

OSID-R Accessories

Product Name and Image	Ordering Code	Description
	OSP-002	Laser Alignment tool
	OSP-004	Test filter - 10 pack
•	RTS151KEY	Test and reset station for flush mount
	RTS151KIT	Test and reset station for surface mount
	BEAMHKR	Heater kit for the reflector
TI	6500MMK	Multi–mount accessory for ceiling or wall mounting with additional mounting adjustment

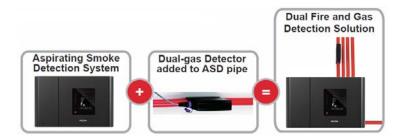
OSID-DE Demo Kit

Product Name and Image	Ordering Code	Description
	VKT-301	OSID Demo kit consisting of 2 X OSE-SPW (fitted with alkaline batteries), 1 X OSI-90, 1 X OSID-INST, fitted in a carry case with mounting plates.

Software OSID-DE

Software	Description
Spring Sp	OSID Diagnostic Tool is an industry first and unique to the beam market used to retrieve events and data stored in the Imager. It provides a wealth of information surrounding an alarm, fault or any significant change. Data can be analysed and plotted revealing; IR/UV attenuation, beam positioning, temperature, reference signals, contamination etc.
OSID Diagnostic Tool	Ordering Info: OSID Diagnostic Tool is available for download from www.xtralis.com.
COLO Exelection Assets of the color of the c	OSID Selection Assistant. Excel based calculation tool to find the best suited OSID solution for a given area. Also compares OSID the solution to any third party beam, including labor and wiring. Ordering Info: Available for download from www.xtralis.com
OSIDSelection Assistant	

Aspirating Smoke Detection Combined with Gas Monitoring



ASD with Gas Detection and Environmental Monitoring

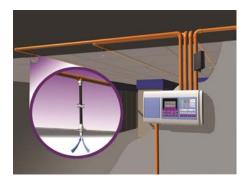
As the world's leading manufacturer of aspirating smoke detection (ASD) solutions, Xtralis is pleased to introduce ECO, the industry's first system to combine ASD with gas detection and environmental monitoring. VESDA ECO:

- Leverages existing VESDA ASD pipe networks to cost effectively detect both smoke and gas in addition to providing environmental monitoring
- Provides detection for multiple gases through simple expansion without major construction or retrofitting
- Conditions the air to remove dirt, particulates, moisture, poisonous agents, and crossinterference gases
- Suitable for harsh environments
- Provides non-intrusive detection for aesthetics or to prevent vandalism
- Enables centralized monitoring and communication with building systems for realtime awareness
- Easily integrates with FACP/ PLCs/ HVAC/ BMS

How ECO Works

ECO uses the existing VESDA air-sampling pipe network to actively monitor for gas leaks and continuously ensure air quality in occupied areas.

ECOreliably detects unseen hazards by conditioning or filtering the air to remove moisture, dirt and other particulates that can cause traditional point gas detection systems to false alarm or become contaminated. The VESDA ECO detector is configured using Xtralis VSC configuration software. The detector also can be monitored using Xtralis VSM4 monitoring software. Both Xtralis VSC and Xtralis VSM4 can be used to download data from the on-board memory card for data analysis and trending of historical data.



How VESDA Sensepoint XCL - Micro Bore ASD System Works

VESDA Sensepoint XCL detector can be added to existing or new VESDA-E VEA tube network installations to actively monitor for gas leakages and build-ups. It integrates with other building systems, including fire alarm control panels, PLCs, HVAC and building management systems, and provides real-time situational awareness for intelligent emergency response. VESDA Sensepoint XCL – Micro Bore ASD System provides significant installation and routine maintenance cost savings by providing easy access to diagnostic information for servicing. Sensor cartridges are easily replaced in the field through simple steps.

Applications

- Battery rooms for the detection of hydrogen
- Boiler rooms for the detection of natural gas or LPG
- Control centers in refineries for detection of methane or hydrogen sulfide ingress
- Road tunnels for the detection of carbon monoxide and nitrogen dioxide
- Building utility rooms for the detection of natural gas or LPG
- Elevator shafts for the detection of methane or carbon monoxide
- Warehouse roof spaces for the detection of natural gas from space heaters
- Laboratories for the detection of various flammable and toxic gases
- Enclosed vehicle parking/loading docks for the detection of carbon monoxide and nitrogen dioxide
- Indoor air quality monitoring

- Detection of various combustible gases in fuel storage areas
- Monitoring of oxygen levels and detection of toxic gases in confined spaces
- Food & beverage for the detection of alcohols and carbon dioxide
- Detection of refrigerant leakage in refrigerated systems
- Greenhouses for the monitoring and control of carbon dioxide levels
- Bus and Train Locomotive Depots
- Universities and schools
- Commercial premises
- Hotels, Hospitals, Residential

VESDA Sensepoint XCL Products List

VESDA Sensepoint XCL- Micro Bore ASD System



Xtralis the manufacturer of the market leading VESDA Aspirating Smoke Detection (ASD) technology has developed with its sister company Honeywell Analytics a new concept of aspirated gas detectors. When used with the VESDA-E VEA; VESDA Sensepoint XCL provides early warning of the presence of gases for occupant protection and system monitoring whilst at the same time ensuring protection against fire threats. Through its embedded Bluetooth interface, VESDA Sensepoint XCL detector enables customers to pair the gas detector with their smart device applications to perform installation, commissioning and maintenance. This ensures a faster VESDA Sensepoint XCL installation, rapid configuration, simplicity to operate, and simplified maintenance.

	·
Ordering Codes	Description
XCL-VEA-CO-RA	VESDA Sensepoint XCL CO 300ppm 4-20mA Relay for VEA
XCL-VEA-CO-RM	VESDA Sensepoint XCL CO 300ppm Modbus Relay for VEA
XCL-VEA-CH4-RA	VESDA Sensepoint XCL CH4 0-100% LEL 4-20mA Relay for VEA
XCL-VEA-CH4-RM	VESDA Sensepoint XCL CH4 0-100% LEL Modbus Relay for VEA
XCL-VEA-H2-RA	VESDA Sensepoint XCL H2 1000ppm 4-20mA Relay for VEA
XCL-VEA-H2-RM	VESDA Sensepoint XCL H2 1000ppm Modbus Relay for VEA
XCL-VEA-CO2VV-RA	VESDA Sensepoint XCL CO2 5% v/v 4-20mA Relay for VEA
XCL-VEA-CO2VV-RM	VESDA Sensepoint XCL CO2 5% v/v Modbus Relay for VEA
XCL-VEA-CO2PP-RA	VESDA Sensepoint XCL CO2 5000ppm 4-20mA Relay for VEA
XCL-VEA-CO2PP-RM	VESDA Sensepoint XCL CO2 5000ppm Modbus Relay for VEA
XCL-VEA-CO-RA-5	5 x VESDA Sensepoint XCL CO 300ppm 4-20mA Relay for VEA
XCL-VEA-CH4-RA-5	5 x VESDA Sensepoint XCL CH4 0-100% LEL 4-20mA Relay for VEA
XCL-VEA-H2-RA-5	5 x VESDA Sensepoint XCL H2 1000ppm 4-20mA Relay for VEA

Approvals:

Electrical Safety

- ∘ Conforms to EN/UL/IEC61010-1
- \circ $\,$ Certified to CSA-C22.2 No. 61010- 1-12
- CE-EMC
 - o EN 50270
- RADIO
 - o RED, FCC, BT SIG
- OTHERS
 - UL2075 (CO and CH4), AS 1668.2

Dimensions: 113 x 113 x 59 mm (4.4 x 4.4 x 2.3 in)

Weight: 500 g (1.1 lb)

Spare Parts

Part Number	Description
XCL-FILTER	VESDA Sensepoint XCL Replacement Filter - Pack of 10
XCL-VEA-CAL	VESDA Sensepoint XCL Calibration/Flow Cap for VEA
XCL-M20-CG	VESDA Sensepoint XCL Cable Glands - Pack of 10
XCL-VEA-TUB	VESDA Sensepoint XCL Tubing Interface for VEA
XCL-COVER	VESDA Sensepoint XCL Sensor Cover with Gasket
XCL-XRL-SC-CO	VESDA Sensepoint XCL/XRL Replacement Sensor - CO 300ppm

Part Number	Description
XCL-SC-CH4	VESDA Sensepoint XCL Replacement Sensor – CH4 0-100% LEL
XCL-XRL-SC-H2	VESDA Sensepoint XCL/XRL Replacement Sensor – H2 1000ppm
XCL-SC-CO2VV	VESDA Sensepoint XCL Replacement Sensor - CO2 5% v/v
XCL-SC-CO2PP	VESDA Sensepoint XCL Replacement Sensor - CO2 5000ppm

ECO Products List

VESDA ECO - Detector



VESDA ECO provides early warning of toxic, oxygen and flammable gas hazards to protect personnel and property whilst ensuring business continuity.

Ordering Codes	Description (Single Gas)
ECO-D-B-11	Hydrogen (H2) 0-100% LEL
ECO-D-B-12	Methane (CH4) 0-100% LEL
ECO-D-B-13	Propane (C3H8) 0-100% LEL
ECO-D-B-14	Hydrogen (H2) 0-2000 PPM
ECO-D-B-15	Petrol/Gasoline Vapor 0-100% LEL
ECO-D-B-20	Alcohol Vapor 0-100% LEL
ECO-D-B-31	Oxygen (O2) 0-25% VOL
ECO-D-B-32	Oxygen (O2) 0-25% VOL - deficiency and enrichment alarm
ECO-D-B-41	Carbon Monoxide (CO) 0-500 PPM
ECO-D-B-43	Hydrogen Sulfide (H2S) 0-100 PPM
ECO-D-B-44	Sulfur Dioxide (SO2) 0-10 PPM
ECO-D-B-45	Nitrogen Dioxide (NO2) 0-10 PPM
Ordering Codes	Description (Dual Gas)
ECO-D-B-31-41	Oxygen (O2) 0-25% VOL + Carbon Monoxide (CO) 0-500 PPM
ECO-D-B-41-45	Carbon Monoxide (CO) 0-500 PPM + Nitrogen Dioxide (NO2) 0-10 PPM

Approvals:

- CE: Electrical Safety
 - o Conforms to ANSI/UL Std 61010-1
 - Certified to CAN/CSA Std C22.2 No. 61010-1
 - o EN 61010-1
- EMC
 - o FCC 47CFR Part 15B class B
 - o ICES 003
 - o EN 50270
- Others
 - o LCPB, VdS, AFNOR compatible for use with Xtralis EN54-20 approved ASD
 - LOM approved to UNE 23300 (CO & CO+NO2)
 - AQISQ CMC Pattern Approval
 CCCF CFE, GB:15322.1

 - VNIIPO
- SIL Rating
 - SIL 2 as per IEC 61508 (combustible gas and CO2 versions)
 - SIL 1 as per IEC 61508 (toxic gas and oxygen versions)

Dimensions: 34 x 125 x 110 mm (1.3 x 4.9 x 4.4 in.)

Weight: 250 g (0.6 pounds)

VESDA ECO Ex Gas Detector



VESDA ECO Ex provides early warning of toxic, oxygen and fl ammable gas hazards to protect personnel and property whilst ensuring business continuity.

VESDA ECO Ex is approved for use within Class I Division 2 classified hazardous locations. It must be used with a similarly approved VESDA ASD and installed within the Class I Div 2 area.

Ordering Codes	Description (Single Gas, Class 1 Division 2)
ECO-D-B-20-Ex	Alcohol Vapor 0-100% LEL
Ordering Codes	Description
ECO-D-B-AA-Ex	Single Gas Unit *

Approvals:

Electrical Safety

- o Conforms to ANSI/UL Std 61010-1
- o Certified to CAN/CSA Std C22.2 No. 61010-1
- o EN 61010-1

• EMC

- o FCC 47CFR Part 15B class B
- o ICES 003
- o EN 50270

• Hazardous Location

- ETL approved to ISA12.12.01, CSA C22.2 No. 213
- Class I Div 2 Groups ABC&D T4 -4°F ≤ Tamb ≤ +131°F

SIL Rating

- SIL 2 as per IEC 61508 (combustible gas and CO2 versions)
- SIL 1 as per IEC 61508 (toxic gas and oxygen versions)

Dimensions: $155 \times 135 \times 74 \text{ mm}$ (6.1 x 5.3 x 2.9 in.)

Weight: 1 kg (2.2 lb) detector and enclosure combined

Note:

^{*} Replace AA with the relevant gas type number.

VESDA ECO Accessories List

Replacement Cartridges (Single Gas)

Ordering Code	Description
ECO-SC-11	Hydrogen (H2) 0-100% LEL
ECO-SC-12	Methane (CH4) 0-100% LEL
ECO-SC-13	Propane (C3H8) 0-100% LEL
ECO-SC-14	Hydrogen (H2) 0-2000 ppm
ECO-SC-15	Petrol/Gasoline Vapor 0-100% LEL
ECO-SC-16	Pentane (C5H12) 1-100% LEL
ECO-SC-20	Alcohol Vapor 0-100% LEL
ECO-SC-31	Oxygen (O2) 0-25% VOL
ECO-SC-32	Oxygen (O2) 0-25% VOL - Deficiency and enrichment alarm
ECO-SC-41	Carbon Monoxide (CO) 0-500 PPM
ECO-SC-43	Hydrogen Sulfide (H2S) 0-100 PPM
ECO-SC-44	Sulfur Dioxide (SO2) 0-10 PPM
ECO-SC-45	Nitrogen Dioxide (NO2) 0-10 PPM
ECO-SC-49	Carbon Dioxide (CO2) 0-5% VOL

Replacement Cartridges (Dual Gas)

Ordering Code	Description
ECO-SC-11-31	Hydrogen (H2) 0-100% LEL + Oxygen (O2) 0-25% VOL
ECO-SC-12-31	Methane (CH4) 0-100% LEL + Oxygen (O2) 0-25% VOL
ECO-SC-12-41	Methane (CH4) 0-100% LEL + Carbon Monoxide (CO) 0-500 PPM
ECO-SC-12-43	Methane (CH4) 0-100% LEL + Hydrogen Sulfide (H2S) 0-100 PPM
ECO-SC-13-31	Propane (C3H8) 0-100% LEL + Oxygen (O2) 0-25% VOL
ECO-SC-31-41	Oxygen (O2) 0-25% VOL + Carbon Monoxide (CO) 0-500 PPM
ECO-SC-41-43	Carbon Monoxide (CO) 0-500 PPM + Hydrogen Sulfide (H2S) 0-100 PPM
ECO-SC-41-45	Carbon Monoxide (CO) 0-500 PPM + Nitrogen Dioxide (NO2) 0-10 PPM

Replacement Cartridges (Dual Gas, Class 1 Division 2)

Ordering Code	Description		
ECO-SC-12-43-Ex	Methane (CH4) 0-100% LEL + Hydrogen Sulfide (H2S) 0-100 PPM		
ECO-SC-13-31-Ex	Propane (C3H8) 0-100% LEL + Oxygen (O2) 0-25% VOL		

Replacement Parts and Adaptors

Product Image	Ordering Code	Description	
	ECO-D-S-01	ECO detector with no sensor cartridge	
	LF41333	Filter Cartridge Assembly	
7	LF41291	USB access port Rubber Bung	

www.acornfiresecurity.com

Product Image	Ordering Code	Description
0	LF41313	USB Connection Lead
	LF41301	Sensor Cartridge O-Ring
	LF41302	Filter Cartridge O-Ring
	LF41312	MicroSD Card

Xtralis



How it works

The XAS systems actively draw air from the protected area through sampling holes in a pipe network. Sampled air is then filtered before being analyzed by conventional or analog point detectors incorporated in the systems. The XAS system is available with one inlet pipe (XAS-1) or two inlet pipes (XAS-2), and can be used with one or two detectors per system. A number of different points from a range of leading technology providers may be used.

The systems utilize a high performance aspirator and programmable flow monitoring circuitry. Air flow level is displayed on a ten element bar graph that can be adjusted for high and low flow thresholds, and flow failure is reported as a device fault via relays to the monitoring system.

Why use Xtralis Smoke Detection Solutions:

- Tamper-proof sampling points which deter vandalism
- Sampling pipe can be located behind vents, invisible to inmates
- The ability to locate sampling holes where smoke will travel and to position the detector in a location that has easy access for maintenance
- Remote monitoring and configuration of detectors improves control and cost of ownership in unmanned or secured areas

Applications

- Where duct detectors are difficult to maintain and service;
- Where an aerial lift device must be used to service duct detectors; and
- Where unobtrusive smoke detection is required

Xtralis Products List

Xtralis Class C (XCC)



The Xtralis Class C (XCC) detector is specifically designed to provide a convenient solution for meeting the requirements for a normal sensitivity EN 54-20 Class C aspirating smoke detector (ASD).

The XCC detector covers up to 1600 m² and supports up to 18 holes. Each hole is designed to meet EN 54-20 Class C requirements and can be used in place of normal point detection with total confidence.

Ordering Codes	Description
----------------	-------------

XCC-011-AU Xtralis XCC: 1600 m² coverage

Approvals: ActivFire, LPCB, VdS, CE - EMC and CPR, EN 54-20

Dimensions: 225 x 225 x 85 mm (8.9 x 8.9 x 3.3 in.)

Weight: 1.9 kg (4.2 lb)

Area Coverage: 1,600 m² (17,220 ft²)

Software

iVESDA

Software Image	Description
2 mm m m m m m m m m m m m m m m m m m	iVESDA is a downloadable application that can be installed on Android and iOS handheld devices and used to monitor and maintain VESDA-E systems with unprecedented ease. It is also compatible with existing VESDA detectors residing on the same VESDAnet as the VESDA-E devices. iVESDA provides detailed alarm, fault and other status information such as smoke trends, airflow, filter life, as well as viewing of important configuration parameters such as pipes in use and smoke alarm thresholds.
	Ordering Info: Downloadable from GooglePlay store and Apple store.
Supported Products	VESDA-E VEU VESDA-E VEA VESDA-E VEP VESDA-E VES VESDA VLP VESDA VLS VESDA VLC VESDA VLF VESDA VLF

ASPIRE

Software Image	Description		
The second secon	ASPIRE is a Windows [®] -based application that aids the specification and design of pipe networks for VESDA and ICAM air sampling smoke detectors. It provides the designer with tools to speed the design process and ensure optimum network performance and installation quality. Ordering Info: ASPIRE is available for download from www.xtralis.com.		
Supported Products	VESDA-E • VESDA-E VEU • VESDA-E VEP • VESDA-E VES VESDA	ICAM IFT-P ILS-1 - 1 Point ILS-1 - 2 Points ILS-2 - 2 points	
	VESDA VLP VESDA VLF-250 VESDA VLF-500 VESDA VLI VESDA VLP VESDA VLS		

Xtralis VSC

Software Image **Description** Xtralis VSC configures, commissions and maintains a range of Xtralis fire and gas detection systems including VESDA and ICAM smoke and gas detectors and E anciliary devices. Xtralis VSC can configure a single Xtralis device or your entire Xtralis system. Ordering Code: VSW-100 **Supported Products VESDAnet** ECO Detector VESDA VLP Sensor VESDA VLS Relay VESDA VLC Analog Output VESDA VLF CO ppm Sensor VESDA VLC NH₃ ppm Sensor VESDA VLS VESDA VLI 0₂ %. v/v Sensor VESDA-E VEU H₂ %. LFL Sensor VESDA-E VEP H₂S ppm Sensor VESDA-E VEA SO₂ ppm Sensor VESDA-E VES NO₂ ppm Sensor Remote Relay CH₄ %. LFL Sensor VESDA Display C₃H₈ %. LFL Sensor System Relay Module H₂ ppm Sensor VLS Remote Relay Cl₂ ppm Sensor VLS Display CO₂ %. v/v Sensor VESDA Programmer C₅H ₁₂ '%. LFL Sensor VESDA Sliding Windows HLI O₂ Dep/Enr %. v/v Sensor VESDA Stop-and-go HLI Alcoh '%. LFL Sensor VESDA Open protocol HLI Pet Vap '%. LFL Sensor • VESDA Sliding Windows HLI with Dial • NH₃ %. LFL Sensor **Analog Output Module MODBUS** VESDA ModBus HLI **VESDA Access HLI** IFT-P VESDA MODBUS3 HLI Sector • VLW-008 2.19.00 - 3.00.405 **VESDAtalk** ILS-1 ILS-2 VESDA VLF VESDAnet Card **VESDAlink** • Multifunction 020 Control Card • VESDA VLC LP Phase 1 Multifunction 030 Control Card VESDA VLC Ro Phase 1 • VESDA VLC Simplex Phase 2 • VESDA VLC 800-MX Phase 2 • VESDA VLC ESSER Phase 2 • VESDA VLC AP Phase 2

Xtralis VSM4

Software Image	Description			
		vides full and comprehensive integration of your VESDA and ICAM		
	smoke and gas detection systems. Note: To correctly specify (order) the Xtralis VSM4 product, the following must be taken into consideration for each particular Xtralis VSM4 application.			
adots.	 What are the total number of Monitoring PC's. 1 Primary PC is the minimum. Are there any Text to Speech requirements What are the total number of VESDAnets to be monitored What are the total number of VESDA detectors on the VESDAnets to be monitored 			
		e total number of "Direct Connect" VESDA detectors.		
		ralis VSM4 is available for download from www.xtralis.com.		
	Ordering Code	•		
	VSW-206	First PC License		
	VSW-216	Additional PC License PC		
	VSW-226	VSM Primary PC (upgrade from VSM3)		
	VSW-346	VESDAnet network Connection		
	VSW-356	VESDAnet Detector Connection per detector		
	VSW-366	VESDAtalk / VESDAlink Detector Connection		
	VSW-427-001	Connection tokens lic (1-20)		
	VSW-427-002	Connection tokens lic (21-100)		
	VSW-427-003	Connection token lic (101-1000)		
	VSW-427-004	Connection token lic (>1000)		
	VSW-500	T2S - Eng-Aust (Karen)		
	VSW-501	Text to Speech (Add voice message)		
	VSW-502 Text to Speech - English			
	VSW-503	Text to Speech- Chin-Cant (Sin-Ji)		
	VSW-504 Text to Speech - Chin-Mand (Mei-Ling)			
	VSW-505 Text to Speech - Fr-Fr (Virginie)			
	VSW-506 Text to Speech - Ger-Ger (Steffi)			
	VSW-507 Text to Speech - Kor-Kor (Narae)			
	VSW-508 Text to Speech - Span-Cast (Isabel)			
	VSW-509	Text to Speech - Ita-Ita (Sylvia)		
	VSW-510	Text to Speech - Rus-Rus (Katerina)		
	VSW-517	Text to Speech - English-American		
	VSW-527	Text to Speech - English-British		
	VSW-537	Text to Speech - Korean + English		
	VSW-547	Text to Speech - Spanish + English		
	VSW-557	Text to Speech - Mandarin + English		
	VSW-600	Remote Notification - Email Support (Per PC)		
	VSW-356-ECO VESDA ECO Detector network connection One required per monitored detector			

Software Image		Description
Supported Products	ECO	VESDAnet
	 ECO Detector Sensor Relay Analog Output CO ppm Sensor NH₃ ppm Sensor 0₂ %. v/v Sensor H₂ %. LFL Sensor H₂S ppm Sensor SO₂ ppm Sensor NO₂ ppm Sensor CH₄ %. LFL Sensor C₃H₈ %. LFL Sensor C₁ ppm Sensor CO₂ %. v/v Sensor C₅H₁₂ '%. LFL Sensor O₂ Dep/Enr %. v/v Sensor Alcoh '%. LFL Sensor Pet Vap '%. LFL Sensor NH₃ %. LFL Sensor NH₃ %. LFL Sensor IFT-P Sector VLW-008 2.19.00 - 3.00.405 ILS-1 ILS-2 VESDA VLC LP Phase 1 VESDA VLC Ro Phase 1 VESDA VLC Simplex Phase 2 VESDA VLC SSSER Phase 2 VESDA VLC ESSER Phase 2 VESDA VLC AP Phase 2 	VESDA VLP VESDA VLC VESDA VLC VESDA VLC VESDA VLC VESDA VLS VESDA VLI VESDA-E VEA VESDA-E VEA VESDA-E VEP VESDA-E VES Remote Relay VESDA Display System Relay Module VLS Remote Relay VLS Display VESDA Programmer VESDA Sliding Windows HLI VESDA Stop-and-go HLI VESDA Open protocol HLI VESDA Sliding Windows HLI VESDA Sliding Windows HLI VESDA ModBus HLI VESDA ModBus HLI VESDA MODBUS3 HLI VESDA MODBUS3 HLI VESDA VLF VESDA VLF VESDANET Card Multifunction 020 Control Card

Pipes and Fittings

Product Image	Ordering Code	Country	Description
18 State Samble Delevier Sameline Tuber-50 s	PIP-001	EU	25 mm red ABS Sampling Pipe - 3 m length
OCHOR Santa Dayses	VP-P-210	US	VESDA CPVC pipe. Sold in box quantities of 210 linear feet.
	VP-P-420	US	VESDA CPVC pipe. Sold in box quantities of 420 linear feet.
	PIP-002	EU	25 mm Socket
	VP-COUP	US	Coupling, 3/4", Socket to Socket CPVC Couplings
	PIP-003	EU	25 mm Socket Union
	VP-UNION	US	Socket Union, 3/4" CPVC Union
	PIP-004	EU	25 mm to 3/4" Socket Adaptor
	PIP-005	EU	25 mm 90° Slow Radius Bend
	PIP-006	EU	25 mm 45° Elbow
	VP-ELB-45	US	Elbow - 45°, 3/4", Socket to Socket, 45°, CPVC Elbow
	PIP-007	EU	25 mm End Cap
	VP-EC	US	End Cap, 3/4" CPVC
	PIP-008	EU	25 mm Equal Tee
	VP-TEE	US	3/4" CPVC Pipe Tees
	PIP-009	EU	25 mm Pipe Clip
9	VP-CLIP-US	US	3/4" pipe support clamp
Para	PIP-012	EU	250 ml Solvent Cement
The state of the s	VP-CEMENT	US	Solvent Cement

Product Image	Ordering Code	Country	Description
	VP-BV	US	Ball Valve, 10 per box
	PIP-013		Pipe Ties
	PIP-014	EU	Pipe Cutters
	VP-CUTTERS	US	CPVC Pipe Cutters. cuts up to 1 1/2" pipe
	059-001		Flush Sampling Point Kit (c/w 2 m of 10 mm OD tube, trunk adaptor, point and decal)
	059-007		Conical Sampling Point Kit (c/w 2 m of 10 mm OD tube, trunk adaptor, point and decal)
SI WOT PAUL	144-013	EU	Conical Sample Point Head only (for 10 mm OD tube)
100 July 100	E700-SP	US	Miniature Sampling Point
	PIP-015		Flush Sample Point Head only (for 10 mm OD tube)
	PIP-016	EU	Trunk Adapter (for 10 mm OD tube)
	VP-TEE-FPT	US	Tee, 3/4" x 1/2" FPY (pack of 10)
	PIP-017	EU	25 mm red ABS 90° Elbow
	VP-ELB-90	US	3/4", Socket to Socket, 90°, CPVC Elbow
Hairating System Test Point	PIP-018		25 mm red ABS Air Sampling Test Point
	PIP-019		25 mm Inline Expansion Socket 100 mm

Product Image	Ordering Code	Country	Description
	PIP-020		25 mm Intumesent 2hr Fire Collar
	PIP-021-G		25mm Flexible 1m Long Bend (grey)
	PIP-026-G		25mm Flexible Connector 30cm (grey)
10	02-WT-01		25 mm Red ABS Self Draining Water Trap
	PIP-021		25 mm flexible 1m long bend
	PIP-022		25 mm to 3/8BSP Female Air Line Adaptor
5	PIP-023		25 mm 2 Way Ball Valve
	PIP-024		25 mm Large Check Valve (blow out valve)
	PIP-025		25 mm x 12" Condensation Valve Trap with Ball Valve
5	PIP-026		25 mm Flexible Connector 30cm
C	PIP-027		Air Sampling Test Point with Cap
	PIP-028		M6 Nut (for fitting clip to the end of threaded rod)

www.acornfiresecurity.com

Product Image	Ordering Code	Country	Description
	PIP-029		M8 Nut (for fitting clip to the end of threaded rod)
	PIP-030		M6 Rod Adaptor (for fitting clip to side of rod)
	PIP-031		M8 Rod Adaptor (for fitting clip to side of rod)
4	PIP-032		M6 Raw Plug Adaptor (for fixing clip to wall)
	PIP-033		25 mm Sight Glass with Condensation Drain
	PIP-034		25 mm/10mm Compression Adaptor
	PIP-035		25 mm/10mm Compression Adaptor Tee (for 2 capillary tubes)

Product Image	Ordering Code	Country	Description
	10-PKIT-15		Pipe Kits comprising of: Red 25 mm ABS Pipe 3-m length (Pack of 5 x 1) Red 25 mm ABS Plain Socket (Pack of 10 x 2) Red 25 mm 90° Slow Radius Bends (Pack of 10 x 1) Red 25 mm 45° Elbow (Pack of 10 x 1) Red 25 mm ABS Plain End Cap (Pack of 10 x 1) Red ABS Pipe Clips (Pack of 20 x 1) ABS Solvent Cement 250ml (each x 1) Wrap around sample point labels (Roll of 100 x 1)
	10-PKIT-30		Pipe Kits comprising of:
			 Red 25 mm ABS Pipe 3-m length (Pack of 10 x 1) Red 25 mm ABS Plain Socket (Pack of 10 x 3) Red 25 mm 90° Slow Radius Bends (Pack of 10 x 1) Red 25 mm 45° Elbow (Pack of 10 x 1) Red 25 mm ABS Plain End Cap (Pack of 10 x 1) Red ABS Pipe Clips (Pack of 20 x 2) ABS Solvent Cement 250ml (each x 1) Wrap around sample point labels (Roll of 100 x 1)
	10-PKIT-60		Pipe Kits comprising of:
			 Red 25 mm ABS Pipe 3m length (Pack of 20 x 1) Red 25 mm ABS Plain Socket (Pack of 10 x 4) Red 25 mm 90° Slow Radius Bends (Pack of 10 x 1) Red 25 mm 45° Elbow (Pack of 10 x 1) Red 25 mm ABS Plain End Cap (Pack of 10 x 1) Red ABS Pipe Clips (Pack of 20 x 3) ABS Solvent Cement 250ml (each x 1) Wrap around sample point labels (Roll of 100 x 1)
	222-059		Discreet end cap for 10 mm OD tube (Clear)
	221-035	EU	10 mm OD Capillary Pipe (30m)
	02-2001-30	US	Microbore 6 mm Sampling Tube - 30 m Reel (100 ft)
	221-036		10 mm OD Natural Capillary Pipe
	128-014		Label - Sampling Point
The state of the s	128-015		VESDA sampling pipe labels (100 per roll)

Product Image	Ordering Code	Country	Description
VESDA® SMOKE (*	E700-SPLR- DCL		VESDA sampling point wrap around labels (200 per roll)
\cap	VSP-860	EU	Refrigerated Storage Sampling Kit (c/w upper and lower VSP-860 fixing flange) * Please ensure PIP-008 (T-Piece) is also used.
	VSP-860-US	US	Refrigerated Storage Sampling Kit - US
	VSP-870	EU	In-line Flow Restrictor Assembly
	VSP-870-US	US	In-line Flow Restrictor Assembly - US
	VSP-871		Flow Restrictor Disc (pack of 10)
Chin	VSP-877		Flush Mount Sampling Point
	VSP-877-B		Flush Mount Sampling Point (Black)
	VSP-877-G		Flush Mount Sampling Point (Grey)
	VSP-878		Push-in Connect Adaptor Kit for ½" capillary tubing
	E700-TUBE		Polyethylene tubing, black. 1/2" OD x 3/8" ID, FPE rated
	TUBING-250		Polyethylene tubing, black. 1/2" OD x 3/8" ID, FPE rated
	E700-CAP KIT		Plastic connector kit for miniature sampling point and capillary tube arrangement. Includes (1) Male connector, (1/2" thread x 1/2" OD Compression) and (1) Female Connector, (1/2" OD Compression)
	CAP-KIT		Brass connector kit for miniature sampling point and capillary tube arrangement. Includes (1) Male connector, (1/2" thread x 1/2" OD Compression) and (1) Female Connector, (1/2" OD Compression)
JESDA®	E700-SP- DCL-PNT		Round style point labels, white
	E700-SPLR		Miniature sampling point label, round style, red
	E700-SPLG		Miniature sampling point label, round style, grey
CAUTION • CAUTION • CAUTION • VESDA SMOKE DETECTOR SAMPING PIPE 20 MI REMOVE, PRIVIOR OBSERCE	E700-SP- DCL-PIPE		Sampling pipe labels. Sold in roll quantity of 35.

www.acornfiresecurity.com

Product Image	Ordering Code	Country	Description
	E700-SP-DCL		Sampling Point Decal, wrap around style (200 per roll). Place center area over sampling point and wrap decal around diameter of pipe.
4(0)	VSP-610		Tamper Proof Sampling Point Metric measurements
	VSP-610-US	US	Tamper Proof Sampling Point, 1" / 25 mm rigid of flexible conduit. Imperial measurements
	VSP-620-01		Tamper Proof Sampling Point, 6 mm capillary
	VSP-620-02		Tamper Proof Sampling Point, 8 mm capillary
	VSP-620-03		Tamper Proof Sampling Point, 10 mm capillary
	VT-Tube-500		1/4" UL Listed Flame Retardant microbore tubing for use with VFT-15 detector (500 ft)
	VT-Tube-1000		1/4" UL Listed Flame Retardant microbore tubing for use with VFT-15 detector (1000 ft)
	02-3000-06		Stainless Steel Sampling Point (6 mm)
	02-3000-08		Stainless Steel Sampling Point (8mm)
THE STATE OF THE S	02-2002-01P		Straight Union for microbore 1/4" (6mm) tube
	02-2003-01P		Tee Union for microbore 6 mm Tube (pack of 10)
	02-FL01-01		Sintered EOL Filter for Microbore 6 mm Tube
	E700-SRB-SH		Mounting Base for sprinkler sampling point. Sprinkler head to be bought separately from Tyco.

Test and Commissioning Tools

Xtralis Test Transformer VTT-10000 is a tool used to test very early warning aspirated smoke detection equipment. It is used with VESDA-E, VESDA and ICAM.

Test Transformer

Product Image	Ordering Code	Country	Description
Wilder for bandering and the second of the s	VTT-10000- AUS	Australia	VESDA Test Transformer (Wire Burner) Previously known as the Hot Wire Test. This power supply unit is used to test VESDA-E, VESDA and ICAM equipment. A timer is incorporated to provide a selectable burn period of up to 3 minutes.
	251-001		Smoke Test Wire

Smoke Pen

Product Image	Ordering Code	Country	Description
The state of the s	VSP-810		Smoke Pen with 6 wicks
SMOKE STICK STARO	VSP-811		Refill pack of 6 wicks

Scorpion Test System

Product Image	Ordering Code	Country	Description
Mar.	PIP-040		ASD Head Unit Kit (includes Scorpion ASD Test Head & low level Access Point)
3 to 10 to 1	PIP-041		Engineer's Portable Controller
Q	PIP-042		Battery Pack to power engineers controller
	PIP-043		Battery charger kit including car charger

General Tools

Product Image	Ordering Code	Country	Description
Smoke Pellets 6 x 13g	251-003		Smoke Pellets
♦ Xtrails Note See: Proceedings Proceedings	VSP-950		Test point pipe labels