

The Merlion Awards 2011

1. Product name: VESDA ECO
2. Company name: Xtralis Pty Ltd
3. Booth number: C29
4. Description of the product potential use and principles of operations (max 500 words)

VESDA ECO by Xtralis is the first product to provide gas detection in combination with Aspirated Smoke Detection (ASD). It can be used on new or existing VESDA ASD sampling pipe networks to actively monitor for the presence of flammable and toxic gases or Oxygen deficiency as well as early warning smoke detection.

VESDA ECO can monitor and alarm in the presence of toxic gases in line with occupational exposure limits or monitor local oxygen concentrations to protect personnel working within a given area.

When used for monitoring flammable gases it provides alarms prior to explosive concentrations being reached, protecting both personnel and plant.

On board data logging provides historical records for post event and exposure analysis. Integral alarm relay contacts can be used to activate local audible or visual alarms or integrate to a higher level system.

Features include:

- a. Multi-hole aspirating gas detection delivering better gas detection and area coverage compared to conventional fixed point gas detectors
- b. Active 24/7 air sampling continuously draws air samples into the detectors (actively draws the gas to the detector versus gas having to reach the detector)
- c. Effective sample flow monitoring and alarm system.
- d. Ability to survive the harshest of environmental conditions that conventional smoke or gas detectors could not survive. This is achievable because the air sample can be conditioned prior to reaching the detector.
- e. Significant reduction in the cost of installation materials and labour
- f. Significant reduction in long-term operating costs
- g. Can be installed without detracting from the protected area's aesthetics



- h. Factory pre-calibrated, field-replaceable, single- or dual-sensor cartridges (1 or 2 sensors per detector)
- i. Two (2) gigabyte onboard data card for event history recording, forensic investigations, or predictive maintenance assessment

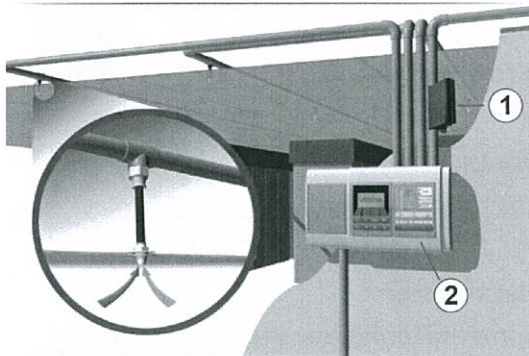
VESDA ASD and VESDA ECO solutions provide gas and smoke detection suitable for industrial and commercial applications including:

- Battery-charging rooms
- Cold storage / refrigeration plant
- Underground road and utility tunnels
- Metal processing plants
- Power generation
- Boiler rooms
- Manufacturing facilities
- Parking garages
- Transportation centers

5. How does the product meet the judging criteria (max 250 words), based on:

- Product innovation

VESDA ECO is the first combined smoke and gas detection system, utilizing the same aspirated sampling pipe network to monitor for fire and gas hazards saving on the cost to supply, install and maintain a dedicated point gas detection system.



This figure shows an aspirating pipe network with sampling ports, An ASD (2) and ECO gas detector (1).

- Design

VESDA ECO uses existing VESDA user interface software and design tools, and adds new sensing technologies to the Xtralis product portfolio e.g. electro chemical cells and electro-catalytic sensing technologies for the detection of flammable gases, toxic gases and oxygen.

- Benefits to consumers

Cost savings over conventional point gas detection are achieved by the reduced number of detectors needed to cover a given area plus the associated cost of routine maintenance and replacement sensing elements. When combined with an ASD system it eliminates the need for expensive field wiring used with point gas detectors.

- User-friendliness of product

Integration with other building systems (Fire Alarm Panels, PLCs, HVAC and Building Management Systems) delivers real-time situational awareness and intelligent emergency response.

- Significant of Unique feature

Multi-hole aspirating gas detection addresses the most arbitrary decision that an installer of gas detection equipment must make... where to locate the detector. VESDA simplifies this choice while providing better detection by sampling from multiple locations in a space vs a single point in space provide by conventional point gas detectors. It also provides better gas detection in variable air flow conditions as shown in figures 1 and 2.

