

## VESDA ECO™ DETECTOR

Expanding on the market-leading VESDA air-sampling smoke detection technology, Xtralis™ has developed the industry's first system to combine ASD with gas detection and environmental monitoring.

VESDA ECO by Xtralis provides protection from both fire and gas threats in powerful yet cost-effective configurations to provide point, zone or total-area coverage in battery-charging rooms, underground utility tunnels, boiler rooms, warehouses, manufacturing facilities, parking garages, transportation centers, and a variety of other applications.

### HOW IT WORKS

VESDA ECO uses an existing VESDA air-sampling pipe network to actively monitor for gas leaks and continuously ensure air quality in occupied areas. This simple expansion requires no construction and does not involve installing electrical conduit.



ECO reliably detects unseen hazards by conditioning or filtering the air to remove moisture, interferent\* gases, 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 and can be monitored using Xtralis VSM4 monitoring software. Both VSC and VSM can be used to download data from the on-board memory card for data analysis and trending of historical data.

Integration with other building systems, including fire control panels, PLCs, HVAC and building management systems, provides real-time situational awareness for intelligent emergency response. For example, VESDA ECO can be used in a transportation hub to monitor carbon monoxide and nitrogen dioxide levels, activating variable-speed fans as part of a demand-controlled ventilation system, which controls costs and saves energy.

### MONITOR TWO GASES WITH EACH VESDA ECO DETECTOR

Each ECO gas detector can house up to two gas sensors, and additional detectors can be added easily to the VESDA pipe network to monitor more gases if required. Pre-calibrated sensor cartridges are easily replaced in the field and make converting to different gas sensors or replacing sensors a simple task.

With VESDA ECO by Xtralis, you can proactively protect your facility with early warning fire and gas detection and maintain enterprise air quality - with significant costs savings and more reliable results over traditional gas detectors.

### FEATURES

- Cost effectively installs on existing VESDA ASD pipe network
- Centralized monitoring for real-time awareness
- Each VESDA ECO detector is pre-configured with one or two sensors
- Simple expansion to monitor multiple gases
- Integrates with PLCs/HVAC/BMS/FACP
- Simple inline installation
- 4-wire RS485 Modbus network
- Configurable relays
- 4-20 mA analog outputs
- On-board data logging

Form No. V.1.07.01

## SPECIFICATIONS

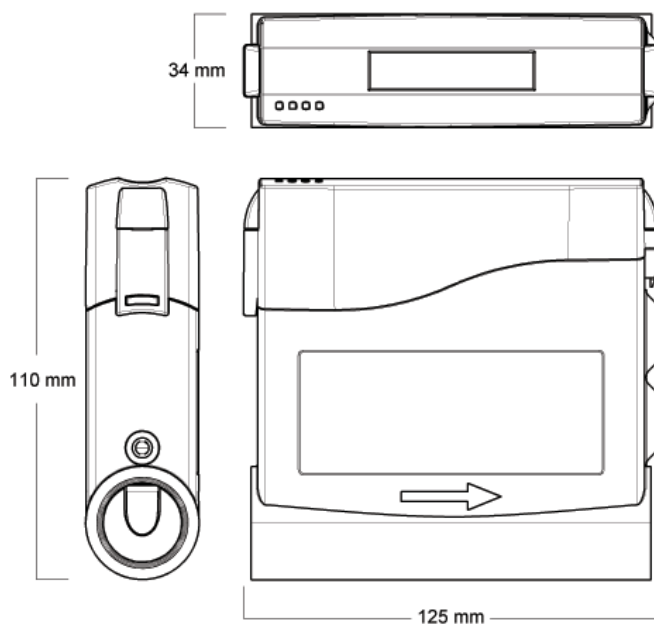
<b>Supply Voltage</b>	18-30 VDC
<b>Power Consumption @ 24 VDC:</b>	3.2 W
<b>Current Consumption:</b>	135 mA @ 24 VDC per sensor
<b>Dimensions (WHD):</b>	1.3" x 4.9" x 4.4" (34 mm x 125 mm x 110 mm)
<b>Weight:</b>	250 g (0.6 pounds)
<b>Operating Conditions:</b>	Detector Ambient: -4 to 131°F (-20 to 55°C) Sampled Air: -4 to 131°F (-20 to 55°C) Humidity: 10-95% RH, non-condensing
<b>Pipe Size:</b>	External Diameter 3/4" US/CAN (25 mm EU)
<b>Wire/Terminal Size:</b>	1.5 mm <sup>2</sup> 16 AWG maximum, shielded twisted pair
<b>Cable Access and Termination:</b>	2xM16 bulkhead grommets
<b>Accuracy:</b>	± 5%
<b>Outputs:</b>	RS485 Modbus RTU Four (4) programmable relays 30 VDC 1A One (1) 4-20 mA output per sensor
<b>Onboard Memory Card:</b>	Mini SD card 2 GB

## INSTALLATION

Install a VESDA ECO detector inline simply by cutting a 4" (10 cm) gap in the inlet or outlet pipe of your ASD system. No mounting bracket required. Designed to press fit onto 3/4" (25 mm) BSP VESDA pipe.

VESDA ECO provides total flexibility to install one or more detectors anywhere on the pipe network to enable monitoring of a specific point, zone or total area.

## DIMENSIONS



## ORDERING INFORMATION

Fike P/N	Description
<b>ECO Detector Single Gas (Relay, 4-20mA, RS485) with Sensor Cartridge</b>	
68-088	Hydrogen (H <sub>2</sub> ) 0-100% LEL
68-089	Methane (CH <sub>4</sub> ) 0-100% LEL
68-090	Propane (C <sub>3</sub> H <sub>8</sub> ) 0-100% LEL
68-091	Oxygen (O <sub>2</sub> ) 0-25% VOL
68-092	Carbon Monoxide (CO) 0-500 PPM
68-093	Ammonia (NH <sub>3</sub> ) 0-100 PPM
68-094	Hydrogen Sulfide (H <sub>2</sub> S) 0-100 PPM
68-095	Sulfur Dioxide (SO <sub>2</sub> ) 0-10 PPM
68-096	Nitrogen Dioxide (NO <sub>2</sub> ) 0-10 PPM
<b>ECO Detector Dual Gas (Relay, 4-20mA, RS485) with Sensor Cartridge</b>	
68-097	Hydrogen (H <sub>2</sub> ) 0-100% LEL + Oxygen (O <sub>2</sub> ) 0-25% VOL
68-098	Methane (CH <sub>4</sub> ) 0-100% LEL + Oxygen (O <sub>2</sub> ) 0-25% VOL
68-099	Methane (CH <sub>4</sub> ) 0-100% LEL + Hydrogen Sulfide (H <sub>2</sub> S) 0-100 PPM
68-100	Propane (C <sub>3</sub> H <sub>8</sub> ) 0-100% LEL + Oxygen (O <sub>2</sub> ) 0-25% VOL
68-101	Oxygen (O <sub>2</sub> ) 0-25% VOL + Carbon Monoxide (CO) 0-500 PPM
68-102	Carbon Monoxide (CO) 0-500 PPM + Hydrogen Sulfide (H <sub>2</sub> S) 0-100 PPM
68-103	Carbon Monoxide (CO) 0-500 PPM + Nitrogen Dioxide (NO <sub>2</sub> ) 0-10 PPM
<b>ECO Single Gas Replacement Sensor Cartridge</b>	
68-104	Hydrogen (H <sub>2</sub> ) 0-100% LEL
68-105	Methane (CH <sub>4</sub> ) 0-100% LEL
68-106	Propane (C <sub>3</sub> H <sub>8</sub> ) 0-100% LEL
68-107	Oxygen (O <sub>2</sub> ) 0-25% VOL
68-108	Carbon Monoxide (CO) 0-500 PPM
68-109	Ammonia (NH <sub>3</sub> ) 0-100 PPM
68-110	Hydrogen Sulfide (H <sub>2</sub> S) 0-100 PPM
68-111	Sulfur Dioxide (SO <sub>2</sub> ) 0-10 PPM
68-112	Nitrogen Dioxide (NO <sub>2</sub> ) 0-10 PPM
<b>ECO Dual Gas Replacement Sensor Cartridge</b>	
68-113	Hydrogen (H <sub>2</sub> ) 0-100% LEL + Oxygen (O <sub>2</sub> ) 0-25% VOL
68-114	Methane (CH <sub>4</sub> ) 0-100% LEL + Oxygen (O <sub>2</sub> ) 0-25% VOL
68-115	Methane (CH <sub>4</sub> ) 0-100% LEL + Hydrogen Sulfide (H <sub>2</sub> S) 0-100 PPM
68-116	Propane (C <sub>3</sub> H <sub>8</sub> ) 0-100% LEL + Oxygen (O <sub>2</sub> ) 0-25% VOL
68-117	Oxygen (O <sub>2</sub> ) 0-25% VOL + Carbon Monoxide (CO) 0-500 PPM
68-118	Carbon Monoxide (CO) 0-500 PPM + Hydrogen Sulfide (H <sub>2</sub> S) 0-100 PPM
68-119	Carbon Monoxide (CO) 0-500 PPM + Nitrogen Dioxide (NO <sub>2</sub> ) 0-10 PPM



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