



The VESDA VLQ detector is a cost-effective Aspirated Smoke Detection (ASD) solution that meets the unique needs of numerous small area applications of up to 100 m² (1,000 ft²). Examples of these include telco landline remote offices, base station controllers, remote base stations, small server rooms, data centre containers, critical equipment, packaged HVAC units, anechoic chambers, pump houses, generator enclosures, signalling huts and modular laboratories, just to name a few.

VLQ detectors are suitable for both high and normal sensitivity applications and offer many installation advantages in terms of out-of-box operation, stand-alone functionality and simplified pipe network.

How it Works

The VLQ detector actively draws air from the protected area through a pipe network where two or four holes are used. The VLQ has two pipe inlets and there are always one or two holes on each pipe. Sampled air is then filtered before being analyzed by the detection chamber.

The detection chamber utilizes a laser light source and photoelectric receiver circuitry to detect scattered light caused by the presence of smoke.

Alarm (Pre-Alarm & Fire) and Fault conditions are reported by activating the corresponding LEDs on the simple display and dry contact relays.

The system allows configuration of both smoke alarm and flow fault thresholds to suit the application needs.

Configuration Options

Convenient and expedient configuration of the VLQ detector is available via DIP switches for true out-of-box operation. A USB communication interface is also available for the Xtralis QSC Configuration and Fire System Management Software application.

Inputs and Outputs

The VLQ detector provides a General Purpose Input (GPI) for remote Reset, Reset + Disable, Stand-by and External Device (PSU) monitoring functions. Three dry contact relay outputs are available for Alarm and Fault annunciation.

Features

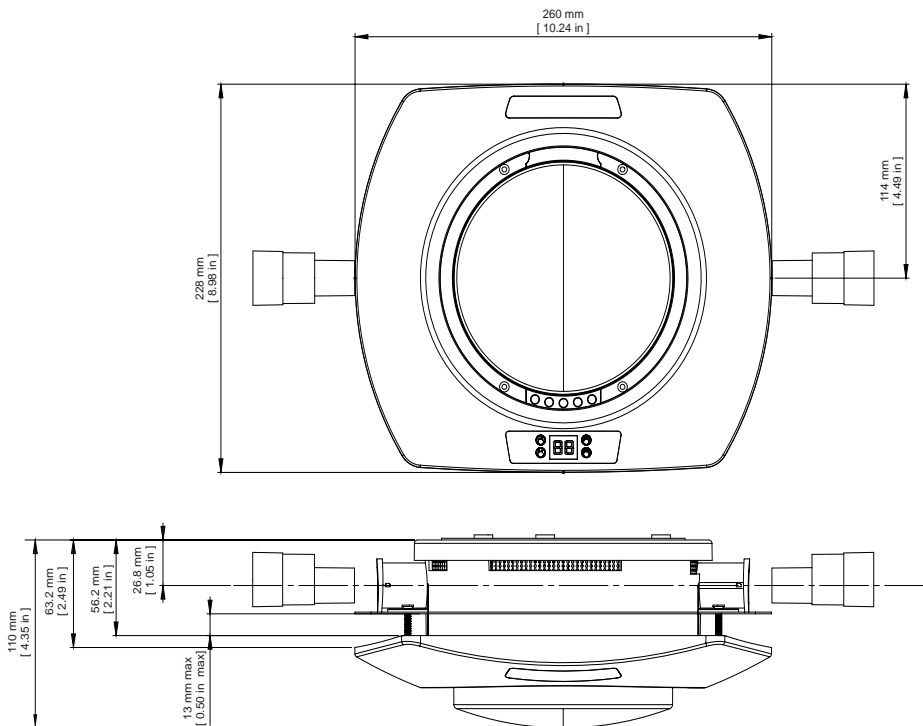
- Laser-based absolute smoke detection
- Clean air barrier for optics protection
- Up to 100m² (1,000 ft²) coverage
- Up to 2 x 6 m (20 ft) linear or up to 2 x 9 m (30 ft) branched pipe lengths
- 2 or 4 Class A / VEWFD sampling holes
- Metric/Imperial pipe inlets
- Pre-alarm, Alarm and Fault Relays
- 5 LEDs, Pre-alarm, Fire, Fault, Filter, Power
- Monitored on-board filter
- AutoLearn™ Smoke
- General Purpose Input (GPI)
- IP30 enclosure
- Xtralis QSC support
- USB port for PC connection
- Event log
- Low power consumption
- Configuration via DIP switches
- Various mounting options

Listings / Approvals

- UL
- ULC
- VNIPPO
- EN 54-20 and other agencies pending
- RoHS compliant

Regional approvals listings and regulatory compliance vary between product models.

Dimensions



Specification

Supply voltage:

24 VDC nominal (18 to 30 VDC), externally supplied

Current consumption:

170 mA (quiescent), 190 mA (max)

Dimensions (WHD):

260 mm x 228 mm x 110 mm (10.24in x 8.98in x 4.35in)

Weight:

1.2 Kg (2.65 lbs)

Operating conditions:

Tested to: -10°C to 55°C (14°F to 131°F)*
 Recommended Detector Ambient: 0°C to 39°C (32°F to 103°F)
 Humidity: 0% to 95% RH, non-condensing

Inlet Pipe Size

Accepts both metric and imperial standard pipe sizes
 Metric: 25 mm external diameter
 Imperial: 1.05 in (3/4" pipe) external diameter

Sampling network:

Pipe Length: Up to 2 x 6 m (2 x 20 ft.) linear, up to 2 x 9 m (2 x 30 ft) branched
 Sampling Holes: 2 or 4 (1 or 2 per pipe)

Sensitivity Range:

0.005% - 3.0% obs/m (0.0015% - 0.915% obs/ft)

Threshold Setting Range:

Fire Alarm: 0.15%/m - 3%/m (0.046%/ft - 0.915%/ft)
 Pre-Alarm: 0.1%/m - 1.5%/m (0.03%/ft - 0.457%/ft)

Alarm and Flow Delays:

0 - 60 seconds

AutoLearn:

Smoke

Indication:

5 LEDs for Pre-alarm, Fire, Fault, Filter and Power

IP rating:

IP30

Filtration:

Field replaceable and monitored

Flow Monitoring and Reporting:

High and Low adjustable

Fan control:

2 x fans at fixed speed, supervised

Relays:

3 Relays rated 2 A @ 30 VDC (Pre-alarm, Fire, Fault)

PC Connection:

USB

General Purpose Input (GPI):

Reset, Reset + Disable, Stand-by and External Device (PSU) monitoring

Event Log:

1,000 events

Cable termination:

Screw terminal blocks (0.2-2.5 sq mm, 30-12 AWG)

Warranty period:

2 years

* Product UL listed between 0°C to 39°C (32°F to 102°F)

Approvals Compliance

Please refer to the Product Guide for details regarding compliant design, installation and commissioning.

Ordering Information

VESDA VLQ Aspirated Smoke Detector	VLQ-100
Surface Mount Kit	VSP-890
Flush Mount Kit	VSP-891
Replacement Filter	VSP-892
Replacement Filter (20 pieces)	VSP-892-20
Pipe Kit (Metric)	VSP-893
Pipe Kit (Imperial)	VSP-893-US

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