



VLS SERIES

LASERSCANNER AIR SAMPLING DETECTOR



ActivFire VdS VNIPO
AFNOR CFE LPCB

P/N: See Chart

Standard Features

- Individual pipe identification
- Adaptive Scan Threshold
- Wide sensitivity range
- Laser based smoke detection
- 4 alarm levels per sector
- High efficiency aspirator
- Clean air barrier optics protection
- Easy to replace air filter
- 12 programmable relays option
- AutoLearn™
- Referencing
- Event log
- Recessed mounting

Overview

The VLS Series VESDA® LaserSCANNER air sampling detector is similar to the standard VLP Series VESDA® LaserPLUS air sampling 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 air sampling zone to be divided into four separate sectors, for example, distinguishing between separate voids within a room.

How It Works

The VESDA LaserSCANNER air sampling detector draws air from all sectors in use. If the smoke level reaches the Adaptive Scan Threshold, the VLS quickly scans each pipe to identify which pipe is carrying smoke. If more than one pipe is transporting smoke, the sector with the highest smoke concentration is designated as the First Alarm Sector (FAS).

Once Fast Scan is completed and the FAS identified, the VLS air sampling detector continues to closely monitor all four sectors (pipes) to monitor fire growth and maintain full protection of the area.

There are four alarm levels (Alert, Action, Fire 1 and Fire 2) for each sector (pipe) and the sensitivity for each alarm level can be set to ensure the optimum alarm thresholds are applied for each sector.

The LaserSCANNER Display

The VLS display has a bar graph to indicate the overall smoke level, alarm threshold and fault indication. The bar graph displays the individual sector smoke levels during the scanning sequence. There is an extra LED to indicate that a First Alarm Sector (FAS) has been identified and an extra function to the Silence Button to allow for Manual Scan to be initiated.

The VLS display module can be mounted into the VLS front cover or remotely into a 19 in (483 mm) subrack or a remote box.

Relay Options

The VLS air sampling detector can be fitted with a programmable 12 relay Termination card. Relays may be mounted in a remote box or in a 19 in (483 mm) subrack.



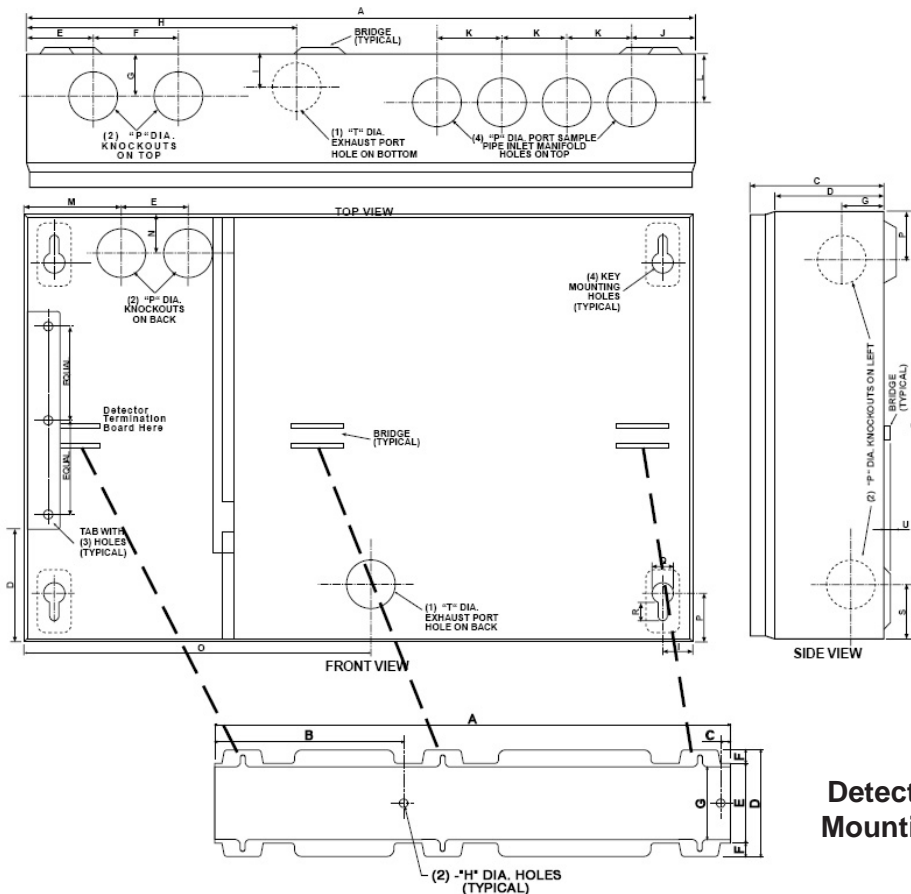
AutoLearn™ and Referencing

The VLS air sampling detector has both the AutoLearn™ and Referencing software functions to ensure optimum operation in different environments and to eliminate the occurrence of nuisance alarms.

AutoLearn monitors the ambient environment and sets the most appropriate alarm thresholds (Alert, Action, Fire 1, Fire 2) during the commissioning process.

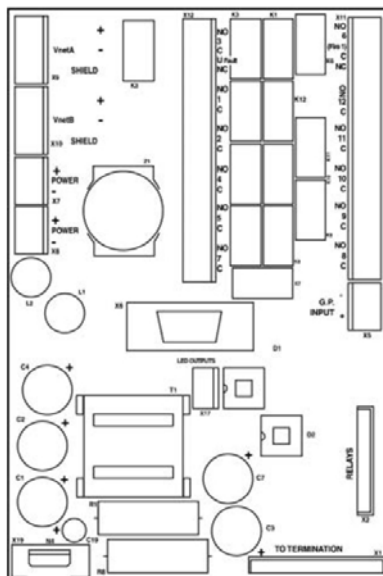
Referencing ensures external pollution to a protected environment does not interfere with the true smoke level being detected.

Detector Mounting Box



Detector Surface Mounting Bracket

Detector Termination Card





Specifications

Supply Voltage:	18–30 VDC			
Power Consumption @ 24 VDC:	No Display or Programmer			
	Aspirator @ 3000 rpm		Aspirator @ 4200 rpm	
	Quiescent	With Alarm	Quiescent	With Alarm
Power	5.8 W	6.24 W	6.72 W	7.2 W
Current	240 mA	260 mA	280 mA	300 mA
Dimensions (WHD):	13.8 in x 8.9 in x 4.9 in (350 mm x 225 mm x 125 mm)			
Weight:	9 lbs (4.0 kg) including Display and Programmer modules			
Operating Conditions:	<p>Tested to: 14°F to 131°F (-10°C to 55°C) Detector Ambient: 32° to 103°F (0°C to 39°C) (Recommended) Sampled Air: -4° to 140°F (-20° to 60°C) Humidity: 10%–95% RH, non-condensing Please consult your Janus Fire Systems representative for operation outside these parameters or where sampled air is continually above 0.015% obs/ft (0.05% obs/m) under normal operating conditions.</p>			
Sampling Network:	<p>Aggregate pipe length: 650 ft (200 m) Pipe Modelling Design Tool: ASPIRE2™</p>			
Pipe Size:	<p>Minimum flow per pipe 15 liters/min. External Diameter 1 in (25 mm) Internal Diameter 9/16 in–7/8 in (15–21 mm)</p>			
Programmable Relays:	<p>12 Relays Contacts rated 2 A @ 30 VDC Default Relays: 10 x NO, 2 x NO/NC contacts Alert, Action, Fire 1, Fire 2, Maintenance, Urgent Fault & Isolate, First Alarm Sector 1 to 4 and Scan</p>			
IP Rating:	IP30			
Cable Access:	8 x 1 in (25 mm) knockouts in various positions			
Cable Termination:	Screw terminals 30–12 AWG (0.2–2.5 sq mm)			
Sensitivity Range:	0.0015%–6% obs/ft (0.005%–20% obs/m)			
Alarm Threshold Setting Range:	<p>Alert: 0.0015%–0.6218% obs/ft (0.005%–1.990% obs/m) Action: 0.0031%–0.6234% obs/ft (0.010%–1.995% obs/m) Fire 1: 0.0046%–0.625% obs/ft (0.015%–2.00% obs/m) Fire 2: 0.0062%–6.25% obs/ft (0.020%–20.00% obs/m)* *Limited to 4% obs/ft (12% obs/m) in UL mode</p>			
Software Features:	<p>Event Log: Up to 18,000 events stored on FIFO basis. AutoLearn: Minimum 15 minutes, maximum 15 days. Recommended minimum period 1 day. During AutoLearn thresholds are NOT changed from pre-set values. Referencing: Compensation for external ambient conditions. Four Alarm Levels (per sector pipe): Alert, Action, Fire 1 & Fire 2. Two Fault Warning Levels: Maintenance and Major fault. Software Programmable Relays: 7 or 12. Maintenance Aids: Filter & Flow monitoring. Event reporting via Event Log. Adaptive Scan Threshold: Detector selects the appropriate scan threshold automatically.</p>			



Ordering Information

Model	P/N	Description	Ship Wt. lb (kg)
VLS-314	19063	Air Sampling, LaserSCANNER, 12 Relay, w/ Programmer and Display	9.0 (4.1)
VLS-300	19064	Air Sampling, LaserSCANNER, 12 Relay, Detector Only	8.0 (3.6)
VLS-214	98099	Air Sampling, LaserSCANNER, 7 Relay, w/ Programmer and Display	9.0 (4.1)
VLS-204	98098	Air Sampling, LaserSCANNER, 7 Relay, w/ Display	8.5 (3.9)
VLS-200	98097	Air Sampling, LaserSCANNER, 7 Relay, Detector Only	8.0 (3.6)

Accessories			
VRT-100	19074	Remote Programmer	1.0 (0.5)
VSP-011	19076	Recessed Mounting Kit	0.5 (0.2)
VHX-0200	19094	PC-Link High Level Interface	1.5 (0.7)
VSW-202	19086	ASPIRE2 Piping Calculator	2.0 (0.9)
VSW-100	19087	VESDA System Configurator	1.0 (0.5)
VPS-300US	19093	Power Supply 120 VAC (w/ Battery Cabinet)	16.0 (7.3)
VRT-800	19090	Remote Display	1.5 (0.7)

Note: Approvals/Listings maintained by and manufactured by Xtralis AG.

The seller makes no warranties, express or implied, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose, except as expressly stated in the seller's sales contract or sales acknowledgment form. Every attempt is made to keep our product information up-to-date and accurate. All specific applications cannot be covered, nor can all requirements be anticipated. All specifications are subject to change without notice.



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