



# VLP SERIES

## LASERPLUS AIR SAMPLING DETECTOR



### Standard Features

- Wide sensitivity range
- Laser based smoke detection
- 4 configurable alarm levels
- High efficiency aspirator
- Four inlet pipes
- Airflow supervisor per sampling pipe
- Clean air barrier optics protection
- Easy to replace air filter
- 7 programmable relays
- AutoLearn™
- Referencing
- Event log
- Modular design
- Recessed mounting option



ActivFire  
AFNOR

VdS  
CFE

VNIPO  
LPCB

**P/N:** See Chart

### Overview

The VLP Series VESDA® LaserPLUS air sampling detector is the central element of the VESDA air sampling product range. Using unique detection principles, the VLP has an alarm sensitivity range of 0.0015%–6.25% obscuration/ft (0.005%–20% obscuration/m). The VESDA LaserPLUS air sampling detector 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.

### How It Works

Air is drawn into the VLP air sampling detector through a network of air sampling pipes by a high efficiency aspirator. Each inlet pipe has an airflow sensor that monitors airflow changes in the pipes. Air is exhausted from the VLP and may be vented back into the protected zone.

Inside the VLP detector, a sample of air is passed into the laser detection chamber. Ultra-fine air filtration provides very clean air to protect the optical surfaces inside the detector from contamination.

The detection chamber uses a stable Class 1 laser light source and carefully positioned sensors to achieve the optimum response to a vast range of smoke types.

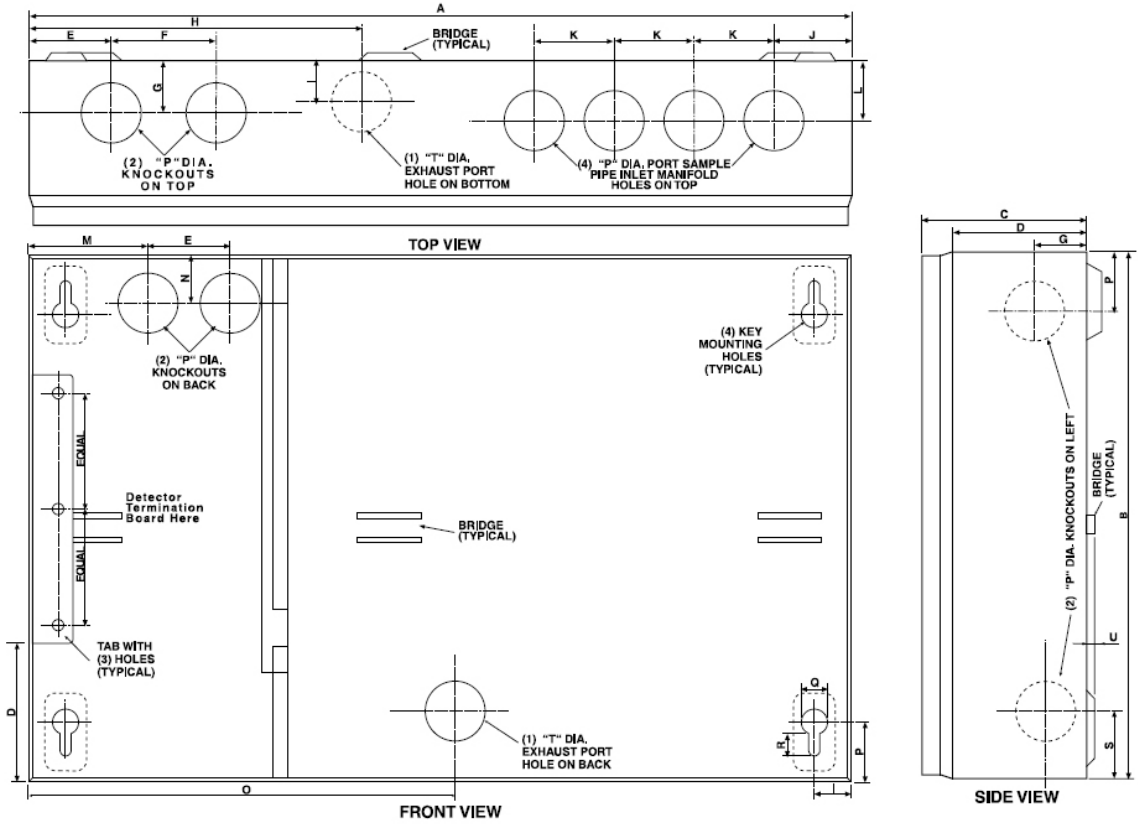
### AutoLearn™

The VESDA LaserPLUS air sampling technology employs unique software tools to ensure optimum operation in many differing environments. AutoLearn monitors the ambient environment and sets the most appropriate alarm thresholds (Alert, Action, Fire1, Fire2) during the commissioning process to allow the earliest possible warning of a potential fire situation with reduced nuisance alarms.

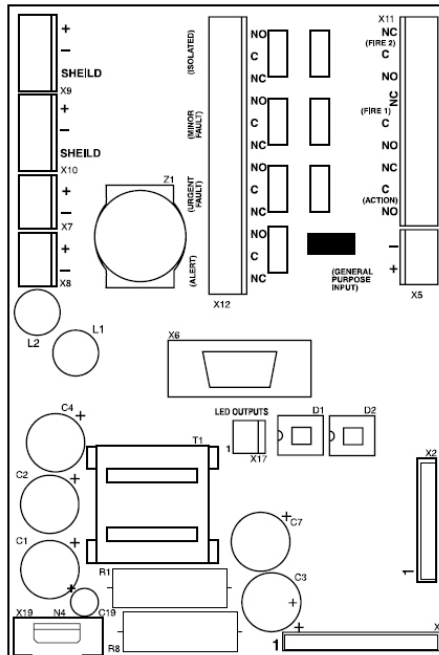
### Referencing

Environments that employ air handling systems may be affected by pollution external to the controlled environment when “fresh air make up” is added. Referencing by the VLP air sampling detector ensures that external pollution does not interfere with the true smoke level being detected in the protected environment. The system can safely compensate for this transient state and allow continued operation free from such nuisance alarms.

## Detector Mounting Box



## Detector Termination Card



Dimensions		
	in	mm
A	13.8	350
B	8.9	225
C	2.75	70
D	2.25	57
E	1.37	35
F	1.75	44.5
G	0.87	22.0
H	5.56	14.1
I	0.62	15.9
J	1.31	33.3
K	1.33	34
L	0.94	23.8
M	2	51
N	0.83	21
O	5.56	141
P	1	25.4
Q	0.44	11.1
R	0.37	9.5
S	1.12	28.5
T	1.19	30.2
U	0.125	3.2



## 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	6.96 W	8.16 W	9.36 W
Current	240 mA	290 mA	340 mA	390 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			
IP Rating:	IP30			
Operating Conditions:	Tested to: 14°–131°F (-10°C–55°C) Detector Ambient: 32°–103°F (0°C–39°C) (Recommended) Sampled Air: -4°–140°F (-20°–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.			
Sampling Network:	Aggregate pipe length: 650 ft (200 m) Maximum Single Length: 325 ft (100 m) Pipe Modelling Design Tool: ASPIRE2™			
Pipe Size:	External Diameter 1 in (25 mm) Internal Diameter 9/16 in–7/8 in (15–21 mm)			
Programmable Relays:	7 Relays, Contacts rated 2 A @ 30 VDC NO/NC Contacts			
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)			
Alarm Sensitivity Range:	0.0015%–6.25% obs/ft (0.005%–20% obs/m)			
Alarm Threshold Setting Range:	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			
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.			
Software Features:	Referencing: Compensation for external ambient conditions. Four Alarm Levels: Alert, Action, Fire 1 & Fire 2. Two Fault Warning Levels: Maintenance and Major fault. Software Programmable Relays: 7. Maintenance Aids: Filter & Flow monitoring. Event reporting via Event Log.			



## Ordering Information

Model	P/N	Description	Ship Wt. lb (kg)
VLP-012	19061	Air Sampling, LaserPLUS (w/ Display & Programmer)	9.0 (4.0)
VLP-000	19062	Air Sampling, LaserPLUS (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-200	19088	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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