

VLF-250

LASERFOCUS AIR SAMPLING DETECTOR



ActivFire
AFNOR

VdS
CFE

VNIPO
LPCB

P/N: 19073

Standard Features

- Swift-Start™ Operation
- SonicFlow™ (Ultrasonic Airflow Sensing)
- Laser-Based Absolute Smoke Detection
- Pre-engineered Pipe Network Designs
- Programmable Alarm Thresholds
- Clean air barrier optics protection
- Instant Recognition Display
- Instant Fault Finder™
- AutoLearn™ Smoke
- AutoLearn™ Flow
- Field Service Access Door
- Multiple Event Logging in separate logs
- Event log – up to 18,000 events
- Offline/online configuration capability
- Up to 2500 sq. ft. (250 m²) coverage

Overview

The VLF-250 VESDA® LaserFOCUS air sampling smoke detector provides very early warning smoke detection performance for the protection of small, business critical environments of 2500 sq. ft. or less.

The air sampling detection concept works by continually drawing ambient air through sampling holes in a pipe network. Upon entering the unit the sampled air is filtered and passed into the detection chamber where light scattering technology detects the presence of very small amounts of smoke.

As the amount of detected smoke increases the revolutionary circular Smoke Dial™ provides the user with an instant understanding of a smoke event, even from a significant distance. Detector status information is communicated externally via relays or optional interface cards.

Swift-Start™

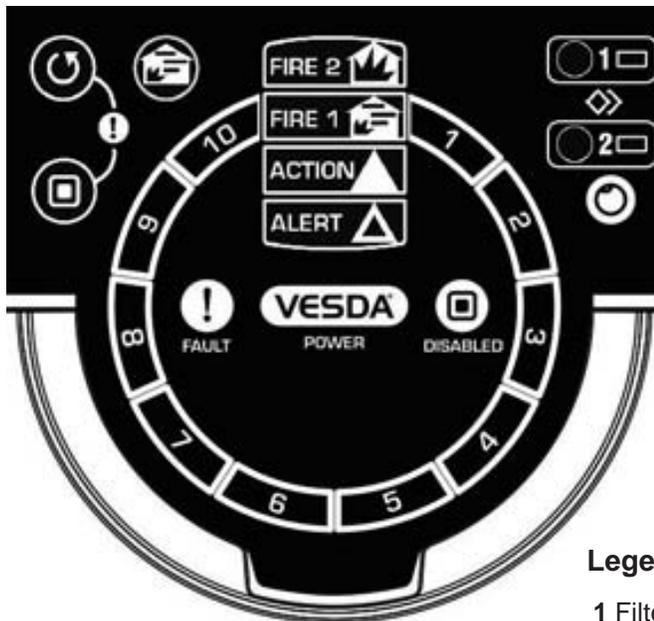
The unrivalled “Swift-Start” concept provides straight-forward installation and commissioning right out of the box using proven pre-engineered sampling pipe network designs and powerful AutoLearn routines without the need for a special interface or software programming tools. The AutoLearn™ function automatically sets acceptable alarm thresholds for both smoke and flow levels without the need for a PC or separate programming device. Custom sampling pipe network designs are supported via the ASPIRE2 calculation program.

In operation, the unique circular Smoke Dial provides instant understanding of a smoke event and system status. Should a fault occur the System Fault LED is illuminated. To troubleshoot the condition the user simply opens the field service door and activates the Instant Fault Finder feature to determine specific fault condition. This information can then be passed onto their Fire Service provider, ensuring service technicians arrive on site fully prepared.

SonicFlow™ Feature

The Ultrasonic Flow Sensing (patent pending) used in the VLF-250 air sampling smoke detector provides a direct reading of the sampling pipe airflow rate. The SonicFlow concept is immune to air temperature and pressure changes and is unaffected by contamination. The VLF-250 is the first air sampling smoke detector to use ultrasonic flow sensing.

Detector Mounting Box



The display provided to the user includes a Smoke Dial and alarm and status indicators.

When the field service access door is open, the user has access to the RESET , DISABLE , Fire Test , AutoLearn  and Instant Fault Finder functions.

When the Instant Fault Finder function is activated, the Smoke Dial converts to a fault indicator, with the dial segment numbers corresponding to the faults listed below.

Legend of Fault Indicators

- | | |
|-------------|-----------------------|
| 1 Filter | 6 External Device/PSU |
| 2 Aspirator | 7 Interface card |
| 3 High flow | 8 Field wiring |
| 4 Low flow | 9 AutoLearn Fail |
| 5 n/a | 10 Detector failure |

Detector Termination Card

	1 GPI	
	2 GPI	
	3 Display TX	
	4 Display RX	
	5 Display Common Ground	
	6 Display Power -	
	7 Display Power +	
	8 Power Return 0 VDC	From power supply unit
	9 Power In 24 VDC	
	10 Power Return 0 VDC	To next detector (if more than 1 detector per Power Supply Unit)
	11 Power Out 24 VDC	
	12 NC	
	13 Common	Fault Relay
	14 NO	
	15 NC	
	16 Common	Action Relay
	17 NO	
	18 NC	
	19 Common	Fire 1 Relay
	20 NO	



Specifications	
Input Power	Voltage: 24 VDC Nominal (18-30 VDC) Current @ 24 VDC: 220 mA nominal, 295 mA in alarm
Dimensions (W x H x D)	9-7/8 in x 7-1/8 in x 3-1/2 in (255 mm x 185 mm x 90 mm)
IP Rating	IP30
Mounting	Upright, inverted or horizontal
Operating Conditions	Detector Ambient: 32°F to 104°F (0°C to 40°C) Humidity: 5% to 95% (non-condensing)
Sampling Network	Maximum area of coverage: 2,500 sq. ft depending on local codes and standards. Maximum Pipe length in accordance with pre-engineered designs or for custom networks use Pipe Modelling Design Tool (ASPIRE2™) and NFPA standards.
Air Inlet Pipe	Accepts both metric and American standard pipe sizes. American Pipe: ¾ inch I.D. Metric: 25 mm O.D.
Relay Outputs	3 Form C relays (Fire 1, Action, Fault), Contacts rated 2A @ 30 VDC (max).
Cable Access	3 x 1 in. (25 mm) cable entries (1 rear entry, 2 top entry)
Cable Termination	Screw Terminals 30-12 AWG (0.2-2.5 mm ²)
Interfaces	Shown in Terminal Block Connections diagram, to right, plus an RS232 Programming Port. General Purpose Input (GPI) interface offers: Reset, Disable, Standby, Alarm set 1, Alarm set 2 and External Input functions.
Sensitivity Range:	0.008 - 6.25% obs/ft (0.025 - 20.00% obs/m)
Alarm Threshold Setting Range	Alert, Action 0.008 - 0.625% obs/ft (0.025 - 2.00% obs/m) Fire 1, Fire 2 0.008 - 6.25% obs/ft (0.025 - 20.00% obs/m) Individual Alarm Delays 0 – 60 seconds Two Alarm Threshold Settings Either time or GPI based
Display	<ul style="list-style-type: none"> • 4 Alarm State Indicators • Fault and Disabled Indicators • Smoke Level Indicator • Instant Fault Finder • Reset, Disable and Test Controls • Smoke and Flow AutoLearn Controls
Event Log	Up to 18,000 events, time and date stamped in separate, non-volatile, logs for: Smoke Level, Flow Level, Detector Status and Faults
AutoLearn Smoke & Flow	<ul style="list-style-type: none"> • Automatically set acceptable alarm thresholds for both smoke and flow levels • Minimum 15 minutes, maximum 15 days (default 14 days) • During AutoLearn thresholds are NOT changed from pre-set values
Warranty Period	2 years



Ordering Information

Model	P/N	Description	Ship Wt. lb (kg)
VLF-250	19073	Air Sampling, LaserFOCUS	4.4 (2.0)
VIC-020	19072	Relay Expander Card (Optional)	0.5 (0.2)
VSP-509	19095	Programming Cable (for connecting PC to VLF)	1.0 (0.5)

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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