FEATURES

- ✓ Out-of-the-Box Installation and Commissioning
- ✓ Ultrasonic Airflow Sensing
- ✓ Laser-Based Absolute Smoke Detection
- ✓ Programmable Alarm Thresholds
- ✓ Dual Stage Air Filtration
- ✓ Instant Recognition Display
- ✓ Instant Fault Finder™
- ✓ AutoLearn™ Smoke
- ✓ AutoLearn™ Flow
- ✓ Field Service Access Door
- ✓ Multiple Event Logging in separate logs
- ✓ Event log – up to 18000 events
- ✓ Offline/online configuration capability
- ✓ Up to 500m² coverage

PRODUCT DESCRIPTION

The VESDA LaserFOCUS detector is a very early warning smoke detector designed to protect small, business critical environments of less than 500m². The detector works by continually drawing air into sample holes in a pipe network. The air is filtered and passed into a detection chamber where light scattering technology detects the presence of very small amounts of smoke. Detector status information is communicated on the detector display and via relays or optional interface cards.

Out-of-the-box Operation:

The VESDA LaserFOCUS can be installed and commissioned out-of-the-box without the need for a special interface or software programming tools. In operation, the unique Smoke Dial display provides the user with an instant understanding of a smoke event, even from a distance. Should a fault occur, the user simply opens the field service door and activates the Instant Fault Finder feature to determine the specific fault condition. This information can then be passed onto their fire service company, ensuring that service technicians arrive onsite fully prepared.

Ultrasonic Flow Sensing:

The patent-pending Ultrasonic Flow Sensing used in the LaserFOCUS provides a direct reading of the sampling pipe flow rate. The system is immune to air temperature and pressure changes and is unaffected by contamination. VESDA is the first air sampling smoke detector to use ultrasonic flow sensing.

Display:

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.

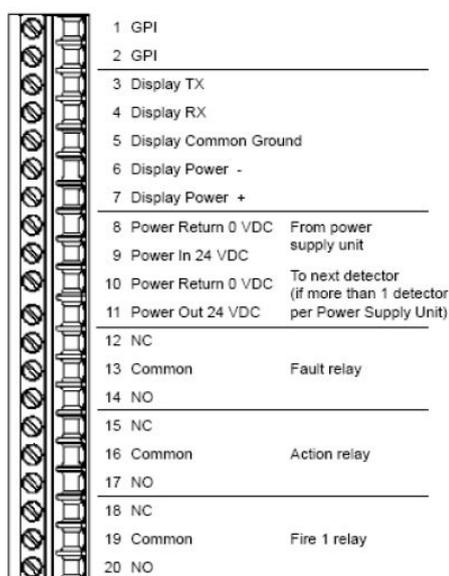| 1: Filter	2: Aspirator	3: High flow	4: Low flow	5: n/a
6: External Device/PSU	7: Interface card	8: Field wiring	9: AutoLearn Fail	10: Detector failure

TECHNICAL SPECIFICATIONS

Input Power	**Voltage:** 24Vdc Nominal (18-30Vdc) **Current @ 24Vdc:** 410mA nominal, 490mA in alarm
Dimensions	255mm W x 185mm H x 90mm D
Weight	Approx. 2 kg
IP Rating	IP30
Mounting	Upright, inverted or horizontal
Operating Conditions	**Detector Ambient:** 0ºC to 40ºC **Sampled Air:** 0ºC to 40ºC **Humidity:** 5% to 95% (non-condensing)
Sampling Network	**Maximum pipe lengths:** 1 x 50m (Max. 24 holes), 2 x 30m per branch (Max. 12 holes per branch). Pre-Engineered Option or Maximum Pipe length in accordance with Pipe. **Sampling Hole Options:** Modelling Design Tool (ASPIRE2™)
Air Inlet Pipe	Accepts both metric and American standard pipe sizes. **Metric:** 25mm **American Pipe:** IPS 21mm
Area Coverage	Up to 500m² depending on local codes and standards
Relay Outputs	3 changeover relays (Fire 1, Action, Fault), Contacts rated 2A @ 30Vdc (max). NO/NC Contacts
Cable Access	3 x 25mm cable entries (1 rear entry, 2 top entry)
Cable Termination	Screw Terminals 0.2-2.5mm² (30-12 AWG)
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.
Alarm Threshold Setting Range	**Alert, Action:** 0.025 - 2.00% obs/m **Fire 1, Fire 2:** 0.025 - 20.00% obs/m **Individual Alarm Delays:** 0 – 60 seconds **Two Alarm Threshold Settings:** Either time or GPI based
Display	• 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 18000 events, time and date stamped in separate, non-volatile, logs for: Smoke Level, Flow Level, Detector Status and Faults
AutoLearn Smoke & Flow	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

OPTIONS

VIC-010	VESDA Network Interface Card
VIC-020	Relay expansion card

TERMINAL BLOCK CONNECTIONS

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	

APPROVALS

- ✓ ActivFire certified - Listing No. afp-1770
- ✓ UL 268, 268A
- ✓ FM Approved for Hazardous Locations, Class I, Div. 2
- ✓ CCCF Approved
- ✓ LPCB Approved
- ✓ VdS Approved
- ✓ CE - EN54-20