



# VESDA Display Modules

Listings/Approvals:  
FM, LPC, SSL, UL, ULC, VdS

## FEATURES

- Provides Immediate Status Reporting for a Single VESDA Zone
- Allows Zone Control of Assigned VESDA Detector
- High Intensity Alarm LEDs
- Remote Relay Option
- 20-Segment Vertical Bar Graph Display
- Alarm Threshold Indicators
- In-Built Sounder for Audible Warning
- Comprehensive Fault Reporting
- Multi-mode Numeric Display (defaults to smoke obscuration)
- Recessed Mounting Option

Display modules provide real-time indication of the status of a VESDA detector. They have a 20-segment vertical bar graph display, a 2 digit numeric display, an audible sounder, clear alarm and fault indicators. They also have 4 push button keys to control the detector and the mode of the display.

The Display Module can be mounted into a detector unit, a remote mounting box or a 19in sub rack. Several displays can be configured to display information from a single detector in multiple locations.

## Description

There are various versions of the display module depending on the type of detector and the relay configuration required. The LaserSCANNER display has a fourth mode for the Numerical Display which shows the First Alarm Sector (FAS), this being the number of the sector (pipe) that has detected smoke. For the LaserCOMPACT the Fire 2 LED is omitted.

### Smoke Indication

Smoke levels are continuously shown on a bar graph display where each illuminated segment indicates the current level of detected smoke.

The top segment of the bar graph indicates the Fire 1 smoke threshold level and each segment below that level represents 1/20 of the Fire 1 smoke threshold level.

To the left of the bar graph are the Fire 1, Action and Alert smoke threshold indicators. At a glance these provide a visual representation of the programmable alarm thresholds showing how close the smoke level is to triggering the next level of alarm.

### Status Lights

High intensity flashing LEDs provide a clear indication of the fire condition and are accompanied by an audible warning appropriate to the alarm condition. Similarly, any fault condition is indicated by a series of LEDs and an audible tone providing a comprehensive range of status information. The audible warning is easily silenced by pressing the Silence button at which point any flashing LEDs are illuminated until the cause of the event is identified, rectified and the system reset.

### Numeric Display

A 2 digit numerical readout has a number of modes that are indicated by up to four LEDs:

- The current smoke level in % obscuration/m (% obscuration/ft)
- Fire 1 threshold in % obscuration/m (% obscuration/ft). This is the sensitivity of the detector.
- The VESDA zone number
- First Alarm Sector on the LaserSCANNER display - the numeric readout shows the sector (pipe) number that has detected smoke.

### Push Button Keys

Four large tactile push button keys enable users to reset, isolate or silence the detector and control the mode of the display module. The buttons can be disabled to prevent operation of it's functions.

A lamp test routine is initiated by pressing the Mode key for two seconds. A Manual Scan can be initiated on the LaserSCANNER by holding the Silence button for 2 seconds.



# VESDA Display Module Specifications

**Supply Voltage:** 18 to 30VDC  
**Power Consumption @ 24VDC:**

	Module Only		In Remote Mounting Box (No Relays)	
	Quiescent	With Alarm	Quiescent	With Alarm
Power	1.6W	2.2W	2.4W	3.0W
Current	60mA	80mA	90mA	110mA

**Dimensions (WHD):**

Mounted in Remote Box –  
 140mm x 150mm x 85mm (5.5in x 5.9in x 3.4in)

**Operating Temperature:**

0° to 39°C (32° to 103°F)

**Humidity:**

10-99%RH non-condensing

**Alarm Indicators:**

High Intensity LEDs with 70 degree viewing angle

**Push Button Keys:** (Mode/Test, Silence/Scan, Reset, Isolate)

Can be disabled during commissioning (except Silence). A pressed key gives a short tone when enabled and a long tone when disabled.

**Mode/Test (Dual Function):**

*Short press:* Selects modes on the numeric display: Sensitivity, Smoke Level, and Zone Number. For LaserSCANNER displays, the First sector/pipe in alarm can be selected.  
*Note:* The current mode is indicated by the appropriate LEDs.  
*Long Press:* Activates the Test Mode

**Silence (Silence/Scan):** (Dual function on Scanner only)

*Short press:* Silences any alarm or fault warnings. Flashing LEDs are permanently lit until the event is cleared and the system reset. Only affects the local display.  
*Long press:* Initiates the scanning of each pipe individually for smoke and displays the current levels.

**Reset:** Resets all the alarms and faults on the detector and its associated displays. If the alarm or fault condition has not been cleared then the appropriate fault indications will be repeated. Reset does not clear the isolate mode.

**Isolate:** Isolates the detector from any external devices or systems. This includes all the relays in the detector and in remote units. Isolate relay is activated while the detector is in isolate mode

**Fault Indicators:**

- System:* A fault that affects the whole VESDA system (any devices connected on VESDAnet)
- Zone:* A fault that affects only the assigned VESDA detector and its associated displays.
- Urgent:* A serious fault that requires immediate attention. This light will only illuminate when at least one other fault light is lit.
- Power:* A fault with either the mains AC or battery backup power supply.
- Network:* A failure in the VESDAnet communications link.
- Airflow:* Airflow drift. **Urgent** indicates serious aspirator or pipe failure.
- Filter:* Filter needs replacing. **Urgent** indicates that filter replacement is overdue.

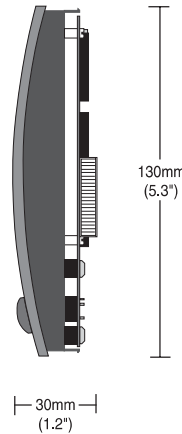
**Ordering Information**

Display, in Remote Mounting Box with termination card:

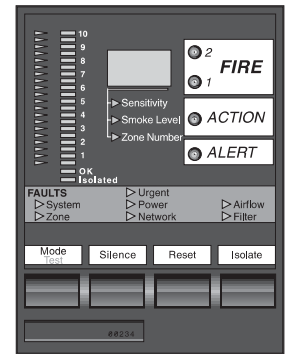
LaserPLUS	7 Relays	VRT-200
LaserPLUS	No Relays	VRT-600
LaserSCANNER	7 Relays	VRT-400
LaserSCANNER	12 Relays	VRT-800
LaserSCANNER	No Relays	VRT-700
LaserCOMPACT	7 Relays	VRT-J00
LaserCOMPACT	No Relays	VRT-K00

Recessed Mounting Kit (Optional)      VSP-012 contact  
 Configured in 19in. Sub Racks          Vision Systems

**Display Module (side view)**

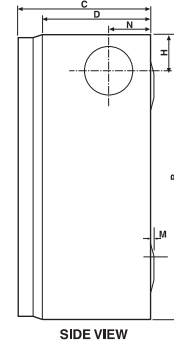
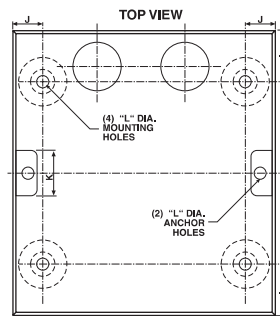
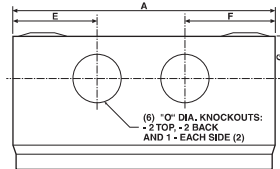


**Display Module (front view)**



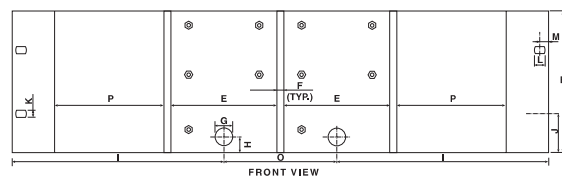
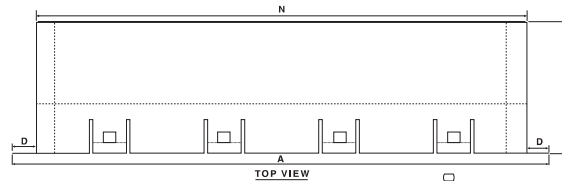
105mm (4.1")

**Remote Mounting Box**



Dimensions		
	mm	in
A	140	5.5
B	150	5.9
C	70	2.75
D	60	2.36
E	44.5	1.75
F	48	1.9
G	23	0.9
H	25	0.98
I	27.5	1.1
J	16.5	0.65
K	25	0.98
L	6.4	0.25
M	1.6	0.06
N	23	0.91
O	26	1.00

**19" Sub Rack**



Dimensions		
	mm	in
A	482	19
B	128	5
C	120	4.75
D	21	0.82
E	97.2	3.82
F	6.4	0.25
G	16	0.62
H	14	0.56
I	190	7.50
J	36	1.4
K	7	0.28
L	10	0.39
M	8	0.31
N	440	17.37
O	102	4
P	98.5	4



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