

## Multi-Zone Fumigation Monitors

Phosphine — Sulfuryl Fluoride — Methyl Bromide

Monitor multiple fumigation points continuously using advanced infrared technology and the latest in network communication protocols.

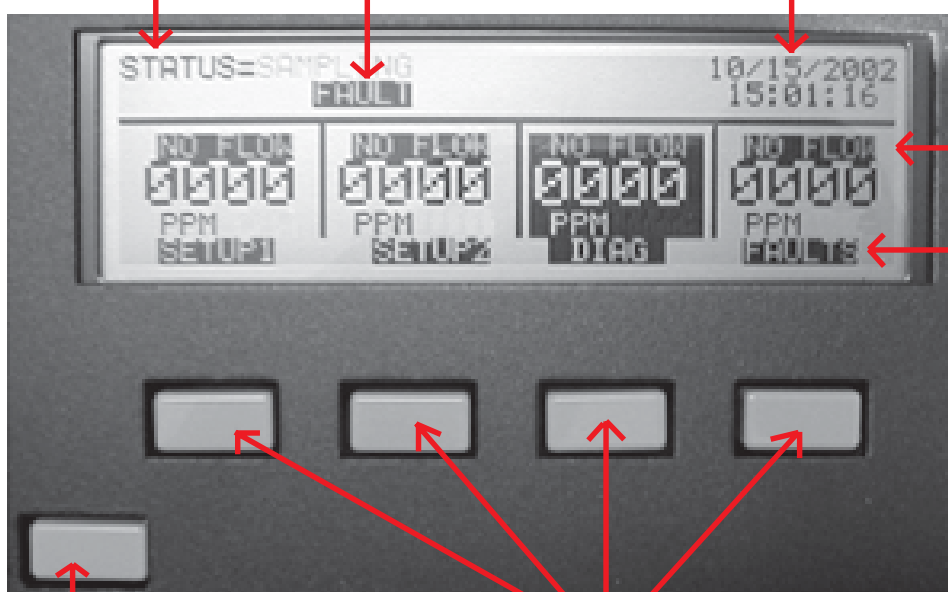
The Spectros Instruments Multi-Zone Fumigation Monitor is designed to monitor, display and log the levels of fumigant gas when used to fumigate structures and commodities. The fumigator may monitor and if desired control the fumigant concentration throughout the process to correct kill levels.

Up to 1,000 measurements can be stored for each test zone, which can later be printed, transmitted via WiFi (radio frequency protocol) to a remote location (optional), or downloaded to a personal computer and further analyzed with common spreadsheet software. Alarm messages may also be transmitted (optional) to a cell phone or pager with standard communication protocols. A graph of concentration vs. time (cumulative effect of the gas as a kill value) for parts-per-million (ppm); g/m<sup>3</sup>; ounces/100ft<sup>3</sup> is available.

The various monitoring options eliminate the necessity of on-site visits and automate report production for job documentation and customer needs.

### Reports

- To PC (LAN).....MODBUS/RS232/RS485/4-20mA
- To Internet (WiFi) ....secured with audit log
- To Printout



**Status Line:**  
WARMUP (15 minutes after power up)  
PRESSURE CHECK (once per hour)  
SAMPLING (drawing in a gas sample)  
MEASURING (determining gas content of sample)

**Alarm /Fault Indication**

**Current Date & Time**  
(set from SETUP1 menu)

**Zone 1-4 Status Box**  
Line 1: Alarm/Fault indication  
Line 2: Gas concentrations

**Soft Button Menu Line**  
Each depression of the Enter/Menu button cycles this line through the following menu selections:  
1. TREND 1—4  
2. ZONE SETUP 1 — 4  
3. SETUP / DIAG / FAULTS  
4. RELAY 1 — 4 Setup

**Enter / Menu Button**  
Scrolls through soft button menus, or functions as the Enter key during data entry

**Soft Buttons**  
Selects menu item as labeled above on the soft button menu line

# Specifications

**Product Type:** Multiple area monitoring system for 1 continuous fumigation monitoring

**Coverage:** 4-point, or 8-point

**Detector Type:** Non-Dispersive Infrared (NDIR)

**Front Panel Display:** Three (3) indicator lights:
 

- One green light will be "on" when unit is operating
- One red light will be "on" when any point is above its alarm setting
- One yellow System Fault Indicator identified clogged sample lines or other system faults.
- Backlit LCD
- Operation Status; Sample Zone Status
- Alarm/Fault Indicator

**Sampling Mode:** Automatic or manual

**Re-Zero:** Automatic — user-definable re-zero frequency

**Response Time:** 5 to 120 seconds — depending on tube length and gas concentration

**System Noise:** Less than 40dB(A) at 10 ft.

**Monitoring Distance:** Up to 500 feet from measuring point to monitor

**Data Points:** 1000 data points per zone. User defined intervals

**Conditioned Signal:** Detected gas level in PPM for the area being monitored: Dual optional 4-20 mAdc isolated outputs: Channel 1 = Area, Channel 2 = ppm level

**Alarms:** Four SPDT alarm contacts are provided, three level alarms and one for system fault. Each of these three "level" alarm contacts may be assigned to any point or group of points. 5 AMP, 123 VAC rated outputs —user-defined: latching or non latching

**Communications:**

- 1) Full two-way communication through RS485. Output compatible with each or any of the following:
  - Building Management Systems:Modbus RTU standard communications protocol
  - RDM800
- 2) RS232C port for automatic data dump and local modem communication—special configuration software available at no charge.

**Power Safety Mode:** Upon power failure, the system alarm contact will change state. Upon return of electric power, the system alarm will reset and the unit will reboot automatically, retain data, the programming it had prior to power failure, and resume normal operation.

**Operating Temp:** 32° - 122°F (0° - 50°C)

**Ambient Humidity:** 5% to 90% (non-condensing)

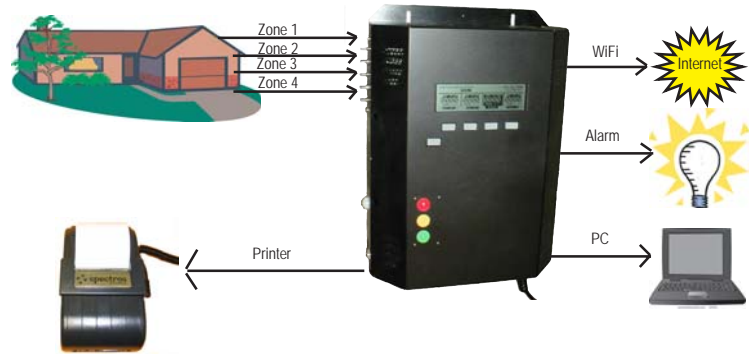
**Size/Weight:** 17" x 12" x 5.5"/15 lbs. May be wall or rack mounted

**Power:** 120VAC +10%, 230VAC +10%; 50/60 Hz

**Certification:** UL/CE (220V)

**Printer:** External (Optional) Thermal Printer via RS232

# Outputs



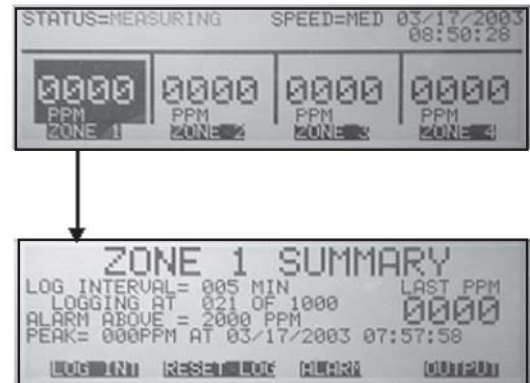
# Screen Shots

## PRINTOUT

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COMPANY NAME
ZONE 2 LOG DATA
DATE      TIME  PPM  PHS
08/24/2002 11:32:03 0    0001 OF 51
08/24/2002 11:32:03 1    0002 OF 51
08/24/2002 11:32:03 2    0003 OF 51
08/24/2002 11:32:03 3    0004 OF 51
08/24/2002 11:32:03 4    0005 OF 51
08/24/2002 11:32:03 5    0006 OF 51
08/24/2002 11:32:03 6    0007 OF 51
08/24/2002 11:32:03 7    0008 OF 51
08/24/2002 11:32:03 8    0009 OF 51
08/24/2002 11:32:03 9    0010 OF 51
08/24/2002 11:32:03 10   0011 OF 51
08/24/2002 11:32:03 11   0012 OF 51
08/24/2002 11:32:03 12   0013 OF 51
08/24/2002 11:32:03 13   0014 OF 51
08/24/2002 11:32:03 14   0015 OF 51
08/24/2002 11:32:03 15   0016 OF 51
08/24/2002 11:32:03 16   0017 OF 51
08/24/2002 11:32:03 17   0018 OF 51
08/24/2002 11:32:03 18   0019 OF 51
08/24/2002 11:32:03 19   0020 OF 51
08/24/2002 11:32:03 20   0021 OF 51
08/24/2002 11:32:03 21   0022 OF 51
08/24/2002 11:32:03 22   0023 OF 51
08/24/2002 11:32:03 23   0024 OF 51
    
```

## ZONES



## PLOTS

