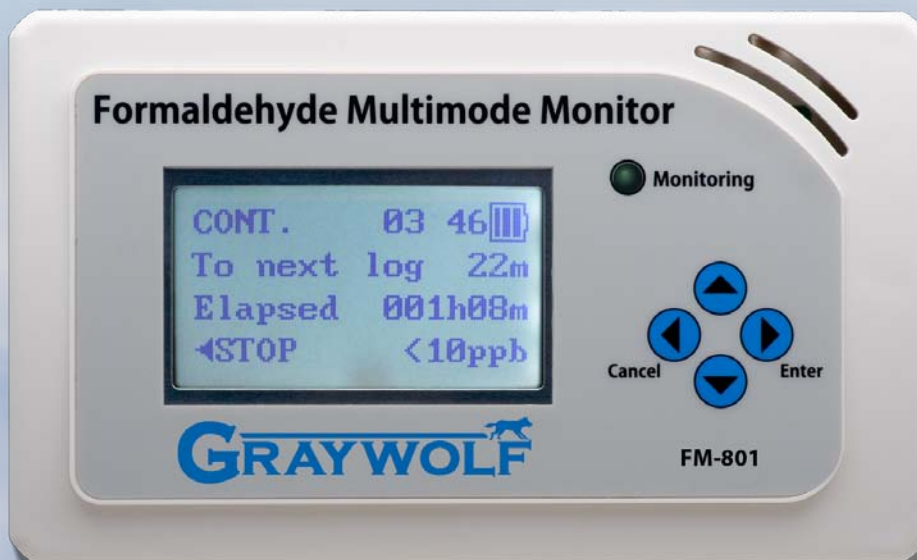




✓ Surveyed

✓ Documented

✓ Reported



## Innovative New Method of Formaldehyde Measurement



Detachable Sensor Cartridge

- Small colorimetric sensor cartridge, 43x17x4mm (1.7x0.7x0.16in), easy-to-use, reusable\*, highly accurate for passive diffusion sampling.
- Portable base unit utilizes photoelectric photometry to read the absorbance change that HCHO induces in the sensor, then re-zeros between readings.
- Sensor cartridge itself can work as a stand-alone passive sampler.
- Base unit w/sensor inserted can operate as an on-site meter for short-term (30minute) sampled measurement and/or for continuous monitoring/trend logging\*.
- Base unit interfaces to GrayWolf's AdvancedSense®, DirectSense® and WolfPack® for simultaneous display and logging of additional parameters (and for powerful annotation features).

### Measurement Principle



Colorimetric reaction to exposure

Sensor element employs the chemical reaction between formaldehyde and  $\beta$ -diketone impregnated in a porous glass. The concentration of rutidine derivatives yellows the sensor in proportion to the formaldehyde concentration and the duration of exposure. The difference of absorbance between samples is measured by radiating a constant wavelength light (absorptiometric method) and then an algorithm converts to ppb or  $\mu\text{g}/\text{m}^3$  HCHO.

\* Sensor reuse depends on HCHO exposure (approximately 4 x 30 minute tests at 1ppm, approximately 150 tests at 80ppb, approximately 1000 tests <10ppb HCHO)

# FM-801

Formaldehyde Multimode Monitor



**GRAYWOLF®**  
SENSING SOLUTIONS  
PH. 1-203-402-0477  
FAX: 1-203-402-0478

EMAIL:  
SALESTEAM@GRAYWOLFSENSING.COM

WEBSITE:  
WWW.GRAYWOLFSENSING.COM

# FM-801

## Formaldehyde Multimode Monitor

### Specifications

|                        |   |
|------------------------|---|
| Model Name             | FM-801  |
| Detection Principle    | Photoelectric Absorptiometric   |
| Detection Range        | <20ppb to 1,000 ppb,<br>< 25 µg/m <sup>3</sup> to 1230 µg/m <sup>3</sup>  |
| Accuracy               | +/- 4ppb <40ppb,<br>+/- 10% of reading ≥40ppb   |
| Resolution             | 1ppb (standard display reads down to 10ppb, and above that at 1ppb increments)  |
| Concentration Units    | ppb or µg/m <sup>3</sup>  |
| Display                | Digital LCD   |
| Sampling Method        | Passive diffusion sampling  |
| Operating Temp. and RH | -10 to 40°C (14 to 104°F), 20 to 90 %RH (non-condensing)  |
| Sensor Shelf Life      | 1 year from mfg. date (stamped on pouch). It is recommended that the sensor is not used >3 months from date pouch is opened and not at all if exposed to <10%RH when open |
| Memory (base unit)     | up to 250 sensors and 4500 data points  |
| Power Source           | 2 x AA size batteries, or AC adapter  |
| Standard Accessories   | Sensor cartridge x 5 pcs, carrying case, USB connection cable, AA size batteries, AC adapter, mini tripod/stand, WolfSense PC data transfer & reporting software          |

### Sensitivity to Interference Gas

|                       | Concentration/<br>Exposure duration | FM-801 readout<br>value (ppb) |
|-----------------------|-------------------------------------|-------------------------------|
| Benzene               | 2000 ppm / 8 h                      | 0 (<10)                       |
| Toluene               | 2000 ppm / 8 h                      | 0 (<10)                       |
| Xylene                | 2000 ppm / 8 h                      | 0 (<10)                       |
| Ethylbenzene          | 2000 ppm / 8 h                      | 0 (<10)                       |
| Methanol              | 2000 ppm / 8 h                      | 0 (<10)                       |
| Ethanol               | 2000 ppm / 8 h                      | 0 (<10)                       |
| 1-Butanol             | 2000 ppm / 8 h                      | 0 (<10)                       |
| 2-Methyl-3-buten-2-ol | 2000 ppm / 8 h                      | 0 (<10)                       |
| Acetone               | 2000 ppm / 8 h                      | 0 (<10)                       |
| 2-Butanol             | 2000 ppm / 8 h                      | 0 (<10)                       |
| Acetic Acid           | 2000 ppm / 8 h                      | 0 (<10)                       |
| Ethyl Acetate         | 2000 ppm / 8 h                      | 0 (<10)                       |
| Isoprene              | 2000 ppm / 8 h                      | 0 (<10)                       |
| alpha-pinene          | 2000 ppm / 8 h                      | 0 (<10)                       |
| beta-pinene           | 2000 ppm / 8 h                      | 0 (<10)                       |
| Chloroform            | 25 ppm / 5 h                        | 69                            |
| Limonene              | 200 ppm / 8 h                       | 9 (<10)                       |
| Styrene               | 200 ppm / 8 h                       | 13                            |
| Propionaldehyde       | 200 ppm / 8 h                       | 13                            |
| n-Nonylaldehyde       | 200 ppm / 8 h                       | 13                            |
| Benzaldehyde          | 200 ppm / 8 h                       | 9 (<10)                       |
| Acetaldehyde          | 200 ppm / 8 h                       | 22                            |
| Nitrogen Dioxide      | 1 ppm / 1h                          | -42 (<10)                     |
| Ozone                 | 1 ppm / 1h                          | -56 (<10)                     |
| Sulfur Dioxide        | 1 ppm / 1h                          | -2 (<10)                      |

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT FURTHER NOTICE



MEASURE SMART

REPORT EFFICIENTLY



FM-801 (on included ACC-BELTCL-1 belt clip) shown connected to GrayWolf AdvancedSense

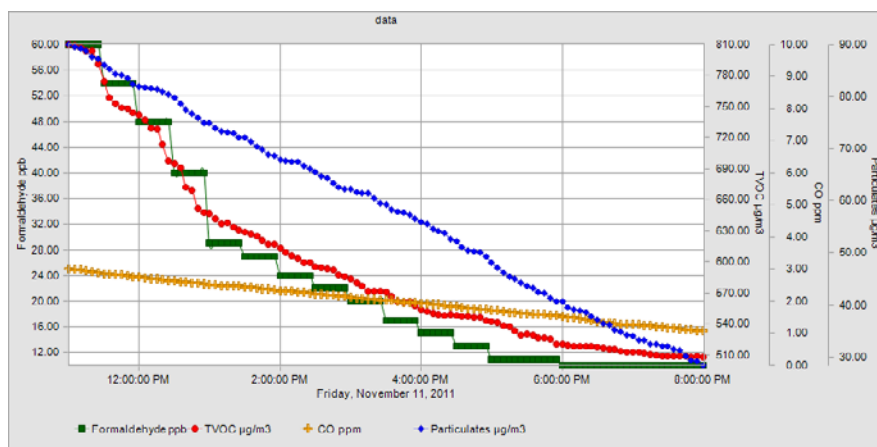


Provided with GrayWolf's versatile WolfSense® PC data transfer and reporting software. Download readings stored on the FM-801 base unit when used as a stand-alone, or when optionally interfaced to compatible GrayWolf platforms



Display real-time HCHO graphs, attach text/audio notes and access many other powerful features when interfaced to AdvancedSense, WolfPack or DirectSense WIN7/8 notebooks/tablets

CE Compliant to CE regulations



Graph formaldehyde trend logs from an FM-801; singly or together with other parameters from any compatible GrayWolf platform



## GRAYWOLF SENSING SOLUTIONS

6 RESEARCH DRIVE (WORLDWIDE HEADQUARTERS)

SHELTON, CT 06484 USA

PH. (1)203-402-0477

800-218-7997

FAX: (1)203-402-0478

EMAIL: SALESTEAM@GRAYWOLFSENSING.COM

WWW.GRAYWOLFSENSING.COM