

## 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 (~4 x 30 minute tests at 1ppm, ~150 tests at 80ppb, up to 1000 tests <10ppb HCHO)

# FM-801

Formaldehyde Multimode Monitor



**GRAYWOLF®**  
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# FM-801

## Formaldehyde Multimode Monitor

### Specifications

Model Name	FM-801
Detection Principle	Photoelectric Absorptiometric
Detection Range	<20ppb to 1,000 ppb, < 25 µg/m <sup>3</sup> to 1230 µg/m <sup>3</sup>
Accuracy	+/- 4ppb <40ppb, +/- 10% of reading ≥40ppb
Resolution	1ppb
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)
Memory (base unit)	up to 250 sensors and 4500 data points
Power Source	2 x AA size Alkaline batteries, or AC adapter
Standard Accessories	Sensor cartridge x 5 pcs, carrying case, USB connection cable, AA size batteries, WolfSense PC data transfer & reporting software

### Sensitivity to Interference Gas

	Concentration/ Exposure duration	FM-801 readout 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)



MEASURE SMART

REPORT EFFICIENTLY



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

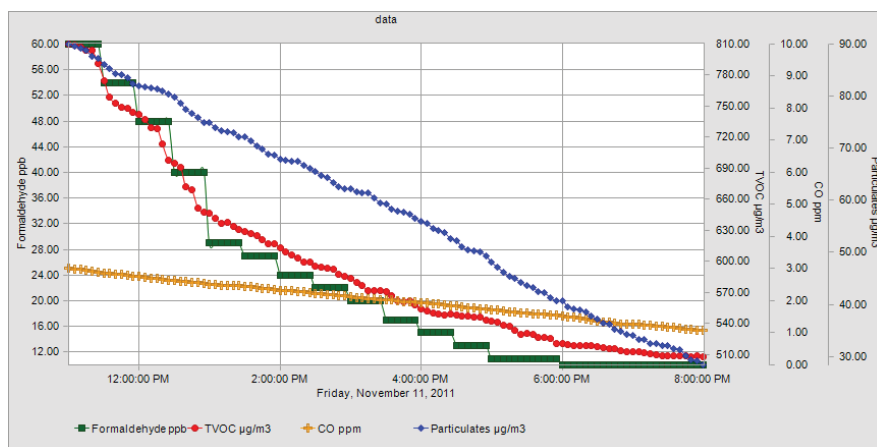


Provided with GrayWolf's versatile WolfSense™ PC data transfer and reporting software. Download readings stored on the FM-801 base unit when used as a stand-alone, or when optionally interfaced to compatible GrayWolf platforms



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



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