

Ozone Monitor on a Board, Model OEM-106



For those who need to integrate their ozone monitor into a separate system such as an air pollution monitoring package, we offer the Model OEM-106 series where the entire ozone monitor is mounted on a single printed circuit board. The liquid crystal display and power switch may be detached and mounted outside the customer's custom enclosure. This is the most compact UV-absorbance-based ozone monitor available on the market. Choice of three different optical benches allows for three different ozone concentration ranges as follows:

Specifications for Different Optical Benches

Model	Range	Resolution	Precision & Accuracy
OEM-106-L	0-100 ppm	0.0001 ppm (0.1 ppb)	Higher of 2 ppb or 2% of reading
OEM-106-M	0-1000 ppm	0.01 ppm	Higher of 0.01 ppm or 2% of reading
OEM-106-H	0-10 wt%	0.01 wt%	0.01%

General Specifications

Measurement Principle	UV Absorption at 254 nm
Measurement Interval	10 s (Data averaging options: 10 s, 1 min, 5 min, 1 hr)
Flow Rate	~1 Liter/min
Data Storage	32,736 lines (10 s avg. = 3.7 days; 5 min avg = 113 days)
Choice of Units	ppb, ppm, pphm, $\mu\text{g m}^{-3}$, mg m^{-3} (vol%, wt% air, wt% O ₂ for Model 106H)
Data Outputs	USB, RS232, 0-2.5 V Analog, 4-20 mA, LCD Display
Power Requirements	12 V, 3.5 watt
Size	2.5 x 7 x 9 inches (6.4 x 17.8 x 22.9 cm); Volume = 1 L
Weight	1.7 lb (0.8 kg)

Features

- Measurement based on UV absorption
- Low power consumption; can be battery operated
- Exchangeable optical benches for extremely wide dynamic range of 1 ppb to 5 wt%
- Internal data logger with real time clock
- On-board microprocessor with interactive menus includes data averaging options of 10 s, 1 m, 5 m and 1 hr
- USB and RS-232 output of time/date, O₃ concentration, internal temperature and pressure
- Analog output (0-2.5 V and 4-20 mA) of ozone concentration in user selected units
- Two level relay for control purposes (e.g., control of ozone source or turn warning light on and off)