

Ozone Monitor on a Board™

Models OEM-106-L, -M, -MH, and -H



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. With the exception of our [Personal Ozone Monitor \(POM\)](#), this is the most compact UV-absorbance-based ozone monitor available on the market. Choice of four different optical benches allows for four 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 1.5 ppb or 2% of reading
OEM-106-M	0-1,000 ppm	0.01 ppm	Higher of 0.01 ppm or 2% of reading
OEM-106-MH	0-10,000 ppm (0-1 vol%)	0.1 ppm	Higher of 0.05 ppm or 2% of reading
OEM-106-H	0-20 wt% O ₂ or Air 0-14 vol%	0.01 wt% 0.01 vol%	Higher of 0.01 wt% or 2% of reading

General Specifications

Measurement Principle	UV Absorption at 254 nm, single beam
Measurement Interval	2 s (Data averaging options: 10 s, 1 min, 5 min, 1 hr)
Flow Rate	~1 Liter/min; up to 20 Liter/min for Model OEM-106-H
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} (for Models OEM-106-L and OEM-106-M) ppm, mg m^{-3} (for Model OEM-106-MH) vol%, wt% air, wt% O ₂ , g m^{-3} , g Nm^{-3} (for Model OEM-106-H)
Data Outputs	USB, RS232, 0-2.5 V Analog, 4-20 mA, LCD Display
Power Requirements	100-240 V AC, 50/60 Hz 11-28 V DC, nominally 500 mA at 12 V, 6 watt for OEM-106-L, -M, -MH 11-28 V DC, nominally 325 Ma at 12 V, 3.9 watt for OEM-106-H
Size	2.5 × 7 × 9 inches (6.4 × 17.8 × 22.9 cm); Volume = 1 L
Weight	2.8 lb (1.3 kg) for Model OEM-106-L 2.5 lb (1.1 kg) for Models OEM-106-M and -MH 2.9 lb (1.3 kg) for Model OEM-106-H

Features

- Measurement based on UV absorption
- Low maintenance
- Low power consumption; can be battery operated
- Long-life pump (15,000 hr) for Models OEM-106-L, OEM-106-M and OEM-106-MH
- Internal data logger with real-time clock
- 2-s measurement interval
- 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 2-level relays for control purposes (e.g., control of ozone source or turn warning light on and off)