

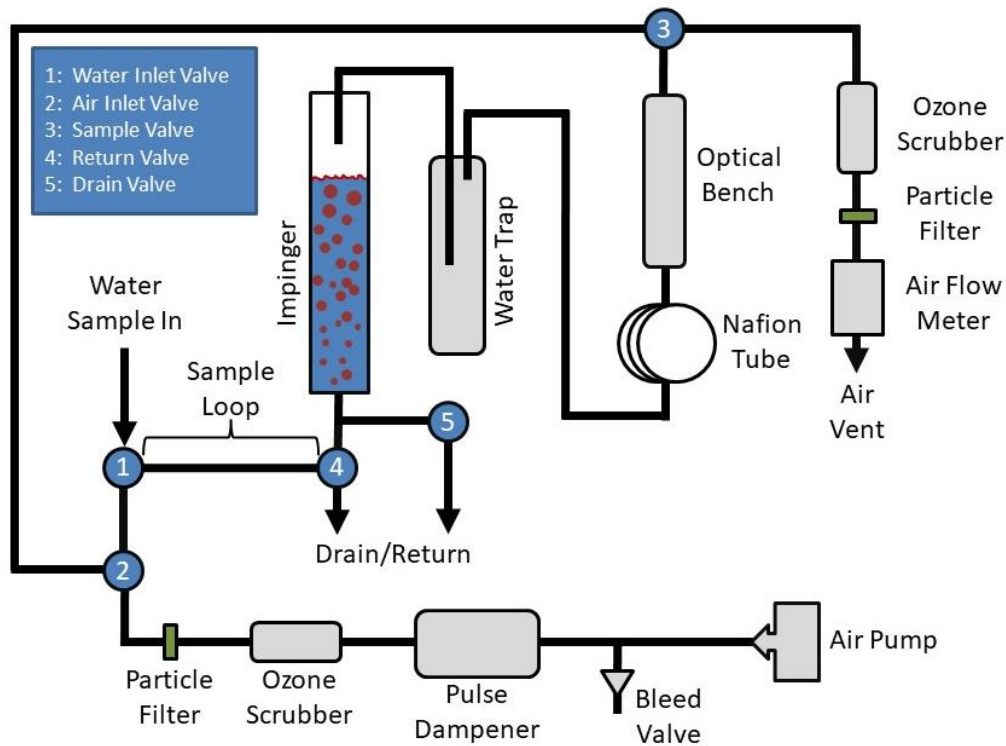
## Model UV-106-W Aqueous Ozone Monitor™ MicroSparge™ Technology



The Model UV-106-W Aqueous Ozone Monitor™ uses our [patented](#) MicroSparge™ technology to measure dissolved ozone in water with high precision and accuracy. Unlike most dissolved ozone sensors, the instrument does not make use of a membrane that will foul over time. Instead, dissolved ozone is measured by nearly complete sparging (bubbling) of ~2 mL of water with ozone-scrubbed ambient air and integrating the gas-phase concentration of ozone stripped from solution. A small correction, based on the temporal profile of ozone removed from solution, is applied to account for any ozone remaining in solution. Because ozone is measured in the gas phase, interferences from particles and dissolved inorganic and organic compounds are removed, making the instrument applicable to both ultrapure water and “dirty” water, such as drinking water, which can contain a wide variety of dissolved inorganic and organic impurities and suspended particles.

The Model UV-106-W Cleaning System is provided with the Model UV-106-W Aqueous Ozone Monitor. The Cleaning System should be used in all applications (except when sampling pure or ultrapure water). The Cleaning System adds citrate to the sample flow at regular intervals to remove scaling and buildup of deposits.

## Schematic Diagram



## Features

- Interference-free measurement of dissolved ozone in ultrapure or "dirty" water
- NEMA water-proof housing
- New measurement every 10 s
- Internal data logger logs 16,383 lines of data
- Precision and accuracy of 0.05 ppm or 1% of reading
- Both serial and user-scalable analog outputs (0-2.5 V and 4-20 mA)
- Selectable data averaging times of 10 s, 1 min, 5 min and 1 hr
- LED alarms
- Available with AC or DC power connections

## Options

- Breakout box for power, RS232, 0-2.5 V and 4-20 mA connectors, and 2 relays

## Specifications of the Model UV-106-W Aqueous Ozone Monitor

<b>Measurement Principle (Absolute Method)</b>	Integrated UV Absorbance of Ozone Sparged from ~2 mL of Water Sample
<b>Applications</b>	Ozone in Clean or “Dirty” Water
<b>Ozone Concentration Range</b>	0-100 ppm (g/m <sup>3</sup> , µg/mL)
<b>Precision</b>	Greater of 0.05 ppm or 1% of Reading
<b>Accuracy</b>	Greater of 0.05 ppm or 1% of Reading
<b>Zero Drift</b>	< 0.05 ppm per month
<b>Measurement Frequency</b>	10 s
<b>Response Time</b>	20 s
<b>Averaging Times</b>	10 s, 1 min, 5 min, 1 hr
<b>Ozone Units Displayed</b>	ppm, ppb, µg/mL, mg/L, g/m <sup>3</sup>
<b>Power Requirements</b>	11-14 V DC, 1.7 A at 12 V, 20.4 watts (1.75 A, 21 watts with Cleaning System)
<b>Sample Water Flow Rate</b>	Nominal: 250-300 mL/min; Range: 50-1000 mL/min
<b>Pressure Range</b>	0-50 psi (>100 psi Burst Pressure)
<b>Housing</b>	NEMA
<b>Relays (2 in Optional Breakout Box)</b>	0.1 ppm Resolution, 2-Level, SPDT Dry Contacts
<b>Analog Outputs</b>	4-20 mA, 0-2.5 V (2 point scalable)
<b>Digital Outputs</b>	LCD, RS232, USB
<b>Baud Rates</b>	4800, 9600, 38400
<b>Logging</b>	Internal Data Logger, 16,383 lines (10 s avg. = 1.9 days; 5 min avg = 57 days)
<b>LED Alarms</b>	Low Lamp, Low Flow, Invalid Measurement
<b>Dimensions (without mounting bracket)</b>	13.3h x 12.0w x 7.3d in (33.8 x 30.5 x 18.5 cm)
<b>Weight</b>	15.1 lb (6.8 kg)

## System Includes

- Model UV-106-W Aqueous Ozone Monitor
- Model UV-106-W Cleaning System
- Model UV-106-W Cable Assembly
- AC Power Adapter (100-240 VAC to 12 VDC, 5 amp) with Country-Specific Plug
- Pressure Reduction Needle Valve Assembly
- Serial Cable (9-pin F to 9-pin F)
- Serial-to-USB Converter and Gender Changer
- Operation Manual on USB Stick
- Calibration Data and Certificate
- Instrument Birth Certificate
- One-Year Warranty