



AQMS-300

Ozone Analyzer

FPI AQMS-300 Ozone analyzer measures ambient O₃ concentration in ppb level by utilizing UV photometric absorption technology.

Principle

The instrument measures the concentration of ambient ozone on the basic principle of ozone adsorbing UV light in chamber with 42 cm optical length for light adsorption since there is a significant characteristic absorption for ozone on wavelength of 254nm.

Periodical diversion on sample flow passing through the ozone scrubber will generate reference measurement, which is compared with sample measurement to provide stable and representative result.

Ozone scrubber

The ozone scrubber is filled with MnO₂ as catalyst, which will convert O₃ to O₂ to perform reference measurement. Meanwhile, the presence of other components remains the same.

Ozone photometer

In ozone photometer, a mercury lamp is used as light source, from which light beam travels through two window glasses and, a gas chamber, to reach a sensor to convert the light into electric signal. Temperature control circuit, heating device and thermistor are used to control the temperature of lamp holder and ensure stability of temperature.

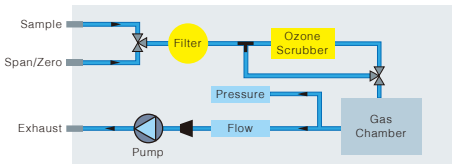
Data storage and analysis

Stored data are easily retrievable through the serial or ethernet port via PC client software, allowing operators to perform predictive diagnostics and enhanced data analysis by tracking parameter trends.



Features

- Accurate direct UV absorption with reference comparison;
- Compliance with US EPA equivalent method;
- Various outputs include ethernet and RS232;
- User friendly interface with large screen;
- Continuous system diagnosis with alarm;
- Multi-tasking software allows viewing test variables while operating;
- Temperature and pressure compensation;
- Internal data logging with 1 min to 365 day multiple averages;



Technical Data

Standard Range	USEPA Specification 0-500 ppb
Zero Noise	0.4 ppb (RMS)
Span Noise	0.5% F.S
Lower Detectable Limit	0.8 ppb (RMS)
Zero Drift	<2ppb/24h
Span Drift	<1%F.S./24h
Linearity	<1%F.S.
Precision	<1%
Response Time	T90<30s
Sample Flow Rate	(800±80)sccm
Data Transmission	2 channel analog (4~20) mA; 2 analog (0~5) V; 2 channel analog (4~20) mA; 1 2 digital output; 1 2 digital output; 4-way relay output;
Communication	RS232/RS485/Ethernet
Operating Temperature	USEPA Specification 20-30 °C
Operating Humidity	0~95%RH (No condensation)
Power Requirement	100~240 VAC, Converter applicable
Dimensions and Weight	178(H) x 432(W) x 604(D)mm , 15kg