

Ambient Air Quality Monitoring System

AQMS-300 Ozone Analyzer

FPI AQMS-300 Ozone (O_3) analyzer measures ambient O_3 concentration in ppb level by utilizing UV photometric absorption technology.



Key Features

- ❖ Accurate direct UV absorption with reference comparison
- ❖ Compliance with US EPA reference 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

Principle

The concentration of ambient ozone is proportional to UV light absorption 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 MnO_2 as catalyst, which will convert O_3 to O_2 to form reference gas. Meanwhile, the presence of other components remains the same.

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.

Technical Data

Standard Range	Min: 0~100 ppb F.S. Max: 0~10 ppm F.S. (Selectable)
Zero Noise	< 0.3 ppb (RMS)
Span Noise	< 0.5% of reading (RMS) above 100 ppb
Lower Detectable limit	< 0.6 ppb (RMS)
Zero Drift (24 hours)	< 1 ppb
Span Drift	< 1% F.S.
Response Time	< 20s (T95)
Precision	< 0.5%
Linearity	< 1% F.S.
Sample Flow Rate	800 cc/min \pm 10%
Operating Temperature	20~30°C range (per US EPA guidelines). Instrument may be safely operated over the range of 5~40°C
Power Requirement	100~240 VAC, Converter applicable
Dimensions and Weight	178mm(H) x 432mm(W) x 609mm(D), 15kg

System Drawing

