

AELAB Ozone Analyzer

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 42cm optical length for 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 MnO₂ as catalyst, which will convert O₃ to O₂ to perform preference measurement. 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.

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.

Features

- ◆ Accurate direct UV absorption with reference comparison
- ◆ Various outputs include RS232,RS485, Ethernet
- ◆ Multi-tasking software allows viewing test variables while operating
- ◆ Internal data logging with 1min to 365 days multiple averages
- ◆ Compliance with US EPA equivalent method
- ◆ User-friendly interface with large screen
- ◆ Continuous system diagnosis with alarm
- ◆ Temperature and pressure compensation

Specifications

Principle	UV Photometric
Standard Range	Max:0~10ppm Min:0~100ppb (Selectable)
Zero Noise	≤0.4ppb (RMS)
Span Noise	≤2.5ppb (RMS)
Display	Digital
Lower Detectable Limit	0.8ppb (RMS)
Zero Drift	±2ppb/24h
Span Drift	±5ppb/24h
Linearity	<1%F.S.
Precision	<1%
Response Time	T90<30s
Sample Flow Rate	(800±80)scm
Calibration	Multi-point Calibrator
Data Transmission	2 channel analog (4~20) mA; 12 digital input/output; 4-way relay output;
Output	RS232/RS485/Ethernet
Operating Temperature	US EPA Specification 20~30°C; Actual applicable:5~40°C
Operating Humidity	0~95%RH (No condensation)
Power Requirement	220±10%V AC/50±10%Hz; 110V/60Hz
Dimensions and Weight	178(H)×432(W)×597(D)mm, 15kg

