

## Ambient Air Quality Monitoring System

# AQMS-500 Sulfur Dioxide Analyzer

**F**PI AQMS-500 sulfur dioxide (SO<sub>2</sub>) analyzer applies UV fluorescence technology recommended by US EPA as federal reference method for trace level SO<sub>2</sub> measurement.



## Key Features

- ❖ 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
- ❖ Critical orifices provide flow stability

## Principle

AQMS-500 measures the intensity of the characteristic fluorescence released by SO<sub>2</sub> in an ambient air sample contained in the gas chamber when the air sample is irradiated by ultraviolet light passed through the chamber.

## UV source

The pulsing of the UV source lamp serves to increase the optical intensity whereby a greater UV energy throughput and lower detectable concentration are realized.

## Removal of interferences

The permeation scrubber acting as hydrocarbon kicker removes aromatic hydrocarbon such as xylene and naphthalene which causes interference.

Optical filtering are employed to improve the rejection of interference from high nitrogen oxides.

## 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: 0~20 ppm F.S. (Selectable)
Zero Noise	< 0.4 ppb (RMS)
Span Noise	< 2.5 ppb
Lower Detectable limit	< 0.5 ppb
Zero Drift (24 hours)	< 1 ppb
Span Drift	< 1% F.S.
Response Time	< 80s (T90)
Precision	< 1%
Linearity	< 1% F.S.
Sample Flow Rate	650 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 597mm(D), 22kg

## System Drawing

