

MODEL 400A

UV Absorption O₃ Analyzer

EPA APPROVAL EQOA 0992-087



0-100 ppb to 0-10 ppm, user selectable

Single pass, single path ultraviolet absorption

Microprocessor controlled for versatility

Multi-tasking software allows viewing test variables while operating

Continuous self checking with warning alarms

Bi-directional RS-232 for remote operation

Digital status outputs provide instrument condition

Adaptive signal filtering optimizes response time

Optional Internal Zero/Span check and dual span points

Temperature & Pressure compensation

Internal data logging, 1 minute to 24 hour averages

The Model 400A UV Absorption Ozone Analyzer is a microprocessor-controlled analyzer that uses a system based on the Beer-Lambert law for measuring low ranges of ozone in ambient air.

A 254 nm UV light signal is passed through the sample cell where it is absorbed in proportion to the amount of ozone present. Every four seconds, a switching valve alternates measurement between the sample stream and a sample that has been scrubbed of ozone. The result is a true ozone measurement unbiased by interferences.

Multi-tasking software gives real time indication of a large number of operational parameters, and provides automatic warnings if diagnostic limits are exceeded.

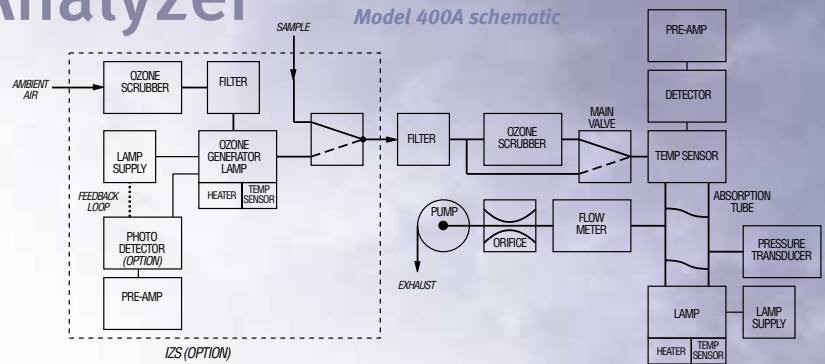
Built-in data acquisition capability, using the analyzer's internal memory, allows the logging of multiple parameters including averaged or instantaneous concentration values, calibration data, and operating parameters such as pressures and flow rates. Stored data is easily retrieved through the RS-232 port or from the front panel, allowing the operator to perform predictive diagnostics by tracking parameter trends.

Multiple averaging periods of one minute to one day are available and may be accessed for readout from the RS-232 port.

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UV Absorption O₃ Analyzer



SPECIFICATIONS

Ranges:	0-100 ppb to 0-10 ppm, operator selectable Dual ranges and auto-ranging supported	Operating Temperature Range:	5 - 40°C
Units:	ppb, ppm, µg/m ³ , mg/m ³ operator selectable	Dimensions (HxWxD):	7" (178 mm) x 17" (432 mm) x 23.5" (597 mm)
Zero Noise:	<0.3 ppb (RMS)	Weight:	45 lbs (20.5 kg)
Span Noise:	<0.5% (RMS) of reading (above 100 ppb)	Power:	100V 50/60 Hz, 115V 60Hz, 220V 50/60 Hz, 230V 50Hz, 240V 50Hz, 250 Watts
Lower Detectable Limit (LDL):	<0.6 ppb (RMS)	Analog Outputs:	10V, 5V, 1V, 100 mV, selectable
Zero Drift:	<0.5 ppb/24 hours, <1.0 ppb/7 days	Recorder Offset:	±10%
Span Drift:	<1% /7 days	RS-232:	Standard, DB-9 connector
Lag Time:	<10 seconds	Status (Digital)	12 outputs from optoisolator, included with standard configuration
Rise and Fall Time:	<30 seconds to 95%	Current Output:	0-20, 4-20 mA isolated output, optional
Linearity:	1% full scale		
Precision:	0.5% of reading above 50 ppb		
IZS Specifications:		Approvals:	USEPA EQOA-0992-087, CE and others
Flow Rate:	800 cc/min		
Maximum Concentration:	1.0 ppm		
Minimum Concentration:	0.050 ppm		
Resolution:	1% of reading		
Stability (7 days):	1% of reading		
Repeatability (7 days):	1% of reading		
Sample Flow Rate:	800 cc/min ±10%		

HOW TO ORDER

Model 400A UV Absorption Analyzer for O₃ includes:

- Selectable voltage (specify below)
- Internal pump
- Auto ranging and dual ranges
- 47mm particulate filter
- 12 isolated digital status outputs
- Bi-directional RS-232

Specify voltage/frequency:

- 100V/50hz 100V/60hz
- 220V/50hz 115V/60hz
- 230V/50hz (CE) 220V/60hz
- 240V/50hz

Specify output voltage:

- 10V 5V 1V 100mV

Particulate Filter:

- 47mm (standard) 37mm (optional)

Additional Options:

- Rack Mount (19") with chassis slides
- Rack Mount only
- Isolated 0-20mA or 4-20 mA Output (specify channels)
- Non-Isolated 0-20mA or 4-20 mA Output (all channels)
- Multi-drop serial interface

Calibration Valves:

- TFE valves for selection of customer-supplied zero and span gas
- Internal zero air and span source for calibration check
- Reference adjustment feedback control for IZS ozone generator

Accessories:

- RS-232 Cable
- Expendables Kit
- Spare Parts Kit

For more information on API's family of monitoring instrumentation products, call us or visit our website at www.advpol.com