

**MODEL 100AH**

# Fluorescent High Range SO<sub>2</sub> Analyzer



**Proven UV Fluorescence principle**

**Versatile 0-10 to 0-5,000 ppm ranges**

**Ranges front panel selectable**

**Excellent zero/span stability**

**Dual ranges and auto ranging**

**Minimum quenching effect from CO<sub>2</sub>  
or O<sub>2</sub>**

**Excellent interferent rejection (NO and  
water)**

**Displays test variables during operation**

**Temperature and pressure  
compensation**

**Fast response (<30 seconds to 95%)**

**Continuous self check with warning  
alarms**

The Model 100AH SO<sub>2</sub> Analyzer is a rugged yet sensitive analyzer with the high measurement ranges and interferent rejection needed for extractive source measurements. The instrument is based on the proven Model 100A ambient SO<sub>2</sub> analyzer but operates with the sample reaction cell held at a controlled vacuum. This gives the analyzer its ability to measure very high concentrations and greatly reduces the effects of interferents in the sample stream. There is minimal quenching by O<sub>2</sub> or CO<sub>2</sub> and less than a 0.1% response to water. Special optical filtering reduces the effects of NO interference. Multi-tasking software allows field range changes as well as auto ranging and dual range operation. The intuitive menu-driven program makes operator interface easy and provides complete accessibility. The Model 100AH can be controlled through the front panel or remotely via RS-232. Built-in diagnostics, electrical and optical tests and warning alarms speed troubleshooting and pinpoint problems.

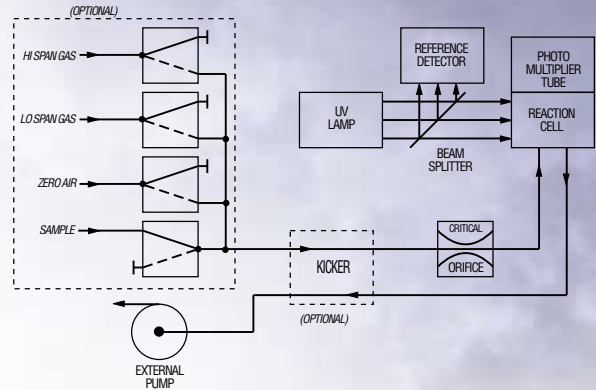
# SO<sub>2</sub>

## MODEL 100AH



# Fluorescent High Range SO<sub>2</sub> Analyzer

Model 100AH schematic



### SPECIFICATIONS

Range:	0-10 to 0-5,000 ppm, operator selectable. Dual ranges and auto ranging supported
Units:	ppm, mg/m <sup>3</sup>
Zero Noise:	<0.05 ppm (RMS)
Span Noise:	<0.5% of reading (RMS) above 10 ppm
Zero Drift:	<0.1 ppm/24 hours
Span Drift:	<1%/24 hours
Lower Detectable Limit (LDL):	<0.1 ppm
Response Time:	<30 seconds to 95%
Flow:	700 cc/min ±10%
Linearity:	1% full scale
Dimensions (HxWxD):	7" (178 mm) x 17" (432 mm) x 23.5" (597 mm)
Operating Temperature Range:	5 - 40°C
Weight:	Analyzer: 43 lbs (19.5 kg) Pump Pack: 16 lbs (7 kg)

Power:	Analyzer: 100V 50/60 Hz, 115V 60Hz, 220V 50/60Hz, 230V 50Hz, 240V 50Hz, 250 Watts Pump pack: 100V 50/60 Hz, 115V 60Hz, 220V 50/60Hz, 230V 50Hz, 240V 50Hz, 250 Watts
Analog Outputs:	10V, 5V, 1V, 100 mV, selectable
Current Output:	0-20mA or 0-40mA isolated output, optional
RS-232:	Standard, DB-9 connector
Status (Digital):	12 outputs from optoisolator, included with standard configuration
Approvals:	CE

NOTE: The values expressed above are in accordance with EPA definitions. All error specifications are based on constant conditions.

### HOW TO ORDER

#### Model 100AH Source Level SO<sub>2</sub> Analyzer includes:

- Selectable voltage (specify below)
- External, heavy-duty pump
- Auto ranging (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
- 0-20 mA or 4-20 mA non-isolated

#### Particulate Filter:

- 47mm (standard)
- 37mm (optional)

#### Additional Options:

- Rack Mount (19") with chassis slides
- Rack Mount only
- Isolated 0-20mA or 4-20mA output
- Multi-drop RS-232 connection
- Zero and Span valves (1 zero, 1 span)

- Zero and Span valves (1 zero, 2 span)
- Kicker (for hydrocarbon removal)

#### 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](http://www.advpol.com)