



TELEDYNE INSTRUMENTS
Advanced Pollution Instrumentation
A Teledyne Technologies Company

MODEL **100EH**

Fluorescent High Range SO₂ Analyzer



- ▶▶ **Standard two year warranty**
- ▶▶ **Ranges, 0-10 to 0-5,000 ppm, user selectable**
- ▶▶ **Dual ranges and auto ranging**
- ▶▶ **Microprocessor controlled for versatility**
- ▶▶ **Excellent zero/span stability**
- ▶▶ **Minimum quenching effect from CO₂ or O₂**
- ▶▶ **Excellent interferent rejection (NO and water)**
- ▶▶ **Displays test variables during operation**
- ▶▶ **Temperature and pressure compensation**
- ▶▶ **Fast response (<30 seconds to 95%)**
- ▶▶ **Continuous self checking with warning alarms**
- ▶▶ **Dual, bi-directional RS-232 ports for remote operation (optional RE-485 or Ethernet)**

The Model 100EH SO₂ Analyzer is a rugged yet sensitive UV Fluorescence analyzer with the high measurement ranges and interferent rejection needed for extractive source monitoring. Modifications to the ambient Model 100E give the analyzer its ability to measure very high concentrations and greatly reduces the effects of interferents in the sample stream.

Specifically, there is minimal quenching by O₂ or CO₂ and less than a 0.1% response to water. In addition, 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 the operator interface easy and provides complete accessibility. The Model 100EH can be controlled through the front panel or remotely via RS-232 or Ethernet. Built-in diagnostics, electrical and optical tests and warning alarms simplify troubleshooting.

For a broad range of CEM and stack testing applications, the Model 100EH provides a simple but precise solution to SO₂ monitoring.

FREE Customer Support by telephone and email for the life of the instrument



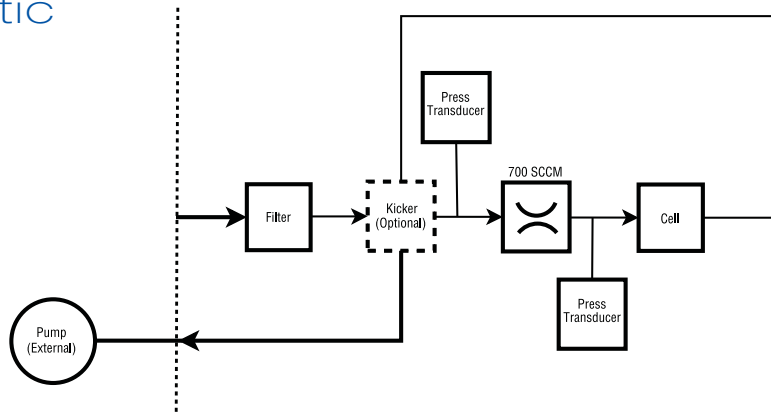
MODEL 100EH Fluorescent High Range SO₂ Analyzer

Specifications

| | | | |
|-------------------------------|---|---------------------|--|
| Ranges: | 0-10 to 0-5,000 ppm, full scale, user selectable. Dual ranges and auto ranging supported | Dimensions (HxWxD): | 7" (178 mm) x 17" (432 mm) x 23.5" (597 mm) |
| Units: | ppm, mg/m ³ | Weight: | 35 lbs (16 kg) |
| Zero Noise: | 0.1 ppm RMS (EPA) | Power: | 100V - 120V, 220V - 240V, 50/60 Hz, 250W |
| Zero Drift: | < 1 ppm/24 hours | Analog Outputs: | 10V, 5V, 1V, 0.1V, selectable |
| Span Noise: | < 1.0% of reading above 10 ppm (RMS) | Current Output: | Optional 4-20 mA isolated outputs (select up to 3 channels) |
| Span Drift: | < 0.5% of reading/24 hours, < 1% of reading/7 days | Recorder Offset: | ±10% |
| Lower Detectable Limit (LDL): | 0.2 ppm | Serial Outputs: | Serial Port 1: RS-232 (DB-9M) Serial Port 2: standard RS-232 or optional RS-485 (DB-9F), Ethernet |
| Response Time: | < 30 seconds to 95% | Status (Digital) | 8 outputs, 6 inputs (opto-isolated), 4 alarm outputs (optional) |
| Sample Flow Rate: | 700 cc/min ±10% | Approvals: | CE |
| Linearity error: | < 1% of range | | |
| Range increment: | 0.1 ppm | | |
| Operating Temperature Range: | 5 - 40°C | | |

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

Schematic



How to Order

Model 100EH Fluorescent High Range SO₂ Analyzer includes:

- Standard two year warranty
- Selectable voltage (specify below)
- External, heavy-duty pump
- Auto ranging and dual ranges
- 47mm diameter particulate filter
- 8 isolated digital status outputs
- Bi-directional RS-232
- 6 isolated digital control inputs

Specify input AC voltage & frequency:

- 100V - 115V 50Hz
 220V - 240V 60Hz

Specify output DC voltage:

- 10V 5V 1V 100 mV

Optional Equipment:

- Rack mount brackets (19") with chassis slides
- Rack mount brackets only
- 4-20mA isolated outputs (specify up to 3 channels)
- Multi-drop RS-232 connection
- Ethernet port includes 7 ft. CAT-5 cable (replaces one serial port)
- O₂ sensor (0-25%)

- NDIR CO₂ sensor (0-20%)
 (Note: Either O₂ or CO₂ — but not both — can be added.)

- Concentration alarms

Calibration Option:

- Valves for selection of customer-supplied zero and span gas
- Span high, span low, zero valves

Accessories:

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

Specifications subject to change without notice. Printed documents are uncontrolled. SAL000002 A (DCN 5051) M100EH/08/08/08



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www.teledyne-api.com

