

**Products**

- ▶ Instruments by Compound
- ▶ Instruments by Application
- ▶ Instruments by Technology
- ▶ Product Overview
- ▶ Applications
- ▶ Software

**Customer Support**

- ▶ Sales Distributors
- ▶ Return Authorization
- ▶ Training
- ▶ Application Notes
- ▶ Secure Support

**Product Support**

- ▶ Technical Support Forms
- ▶ Product Manuals
- ▶ Spare Parts Lists
- ▶ Spare Parts Finder

**Model 100E**

**UV Fluorescence SO<sub>2</sub> Analyzer**

The Model 100E uses the proven UV fluorescence principle, coupled with state of the art microprocessor technology to provide accurate and dependable measurements of low level SO<sub>2</sub>.

Exceptional stability is achieved with the use of an optical shutter to compensate for PMT drift and a reference detector to correct for changes in UV lamp intensity. A hydrocarbon "kicker" and advanced optical design combine to prevent inaccuracies due to interferents. The multi-tasking software gives real time indication of a large number of operational parameters and provides automatic alarms if diagnostic limits are exceeded.

All instruments of the TAPI E Series include an extensive built-in data acquisition capability using the analyzer's internal memory. This allows the logging of multiple parameters including averaged and instantaneous concentration values, calibration data and operating parameters such as flow, pressure and lamp intensity. Stored data are easily retrieved through the serial port or optional Ethernet port via our APIcom software or from the front panel, allowing operators to perform predictive diagnostics and enhanced data analysis by tracking parameter trends.

The Model 100E combines lighter weight, rugged construction, ease of use, powerful diagnostics, modular design and outstanding performance to yield the ideal tool for today's air monitoring requirements.

**Features**

- Standard two year warranty
- Ranges, 0-50 ppb to 0-20 ppm, user selectable
- Dual ranges and auto ranging
- Microprocessor controlled for versatility
- Multi-tasking software allows viewing test variables while operating
- Continuous self checking with alarms
- Dual bi-directional RS-232 ports for remote operation (optional RS-485 or Ethernet)
- Digital status outputs indicate instrument operating condition
- Adaptive signal filtering optimizes response time
- Temperature & Pressure compensation
- Internal Zero & Span check (optional)
- Internal data logging with 1 min to 365 day multiple averages
- Critical orifices provide flow stability



Specifications	
Ranges:	0-50 ppb to 0-20,000 ppb full scale, user selectable. Dual ranges and auto ranging supported
Units:	ppb, ppm, µg/m <sup>3</sup> , mg/m <sup>3</sup>
Zero noise:	< 0.2 ppb (RMS)
Span noise:	< 0.5% of reading (RMS) above 50 ppb
Lower Detectable Limit (LDL):	0.4 ppb
Zero Drift:	< 0.5 ppb/24 hours, 1 ppb/7 days
Span Drift:	< 0.5% of FS/24 hours, ≤1% of FS/7 days
Lag time:	20 seconds
Rise and Fall Time:	< 100 seconds to 95%
Linearity:	1% of full scale
Precision:	0.5% of reading above 50 ppb
Sample Flow	150 cm <sup>3</sup> /min ±10%

Rate:	050 cm <sup>3</sup> /min ±10%
Operating Temperature Range:	5 - 40°C (with EPA Equivalency)
Dimensions (HxWxD):	7" (178 mm) x 17" (432 mm) x 23.5" (597 mm)
Weight:	35 lbs (16 kg)
Power:	100V - 120V, 220V - 240V, 50/60 Hz, 250W
Analog Outputs:	10V, 5V, 1V, 0.1V, selectable
Recorder Offset:	±10%
Serial Outputs:	Serial Port 1: RS-232 (DB-9M) Serial Port 2: standard RS-232 or optional RS-485 (DB-9F), Ethernet
Status (Digital):	8 outputs, 6 inputs (opto-isolated), 6 alarm outputs (optional)
Current Output:	Optional 4-20mA, select up to three channels
Approvals:	USEPA EQSA-0495-100 MCERTS certified Sira MC050067/00 EN14212 Approved, and others.

---

[Home](#) | [Terms of Use](#)  
[Terms and Conditions - \(PDF\)](#)  
e-mail us: [api-sales@teledyne.com](mailto:api-sales@teledyne.com)

Copyright © 2008 Teledyne Technologies Incorporated. All rights reserved.  
Teledyne API • 9480 Carroll Park Drive • San Diego, California 92121-5201 • USA