TELEDYNE
MONITOR LABS
A Teledyne Technologies Company

sensor℮®

SAMPLE
CAL
FAULT

Cond   SO2   2.9 PPB

Mode   SAMPLE

Param   RANGE=500.0 PPB

<TST   TST>   CAL   SETUP

SO₂ ANALYZER - MODEL T100

T SERIES

Model T100   UV Fluorescence SO₂ Analyzer

The Model T100 uses the proven UV fluorescence principle, coupled with a state-of-the-art user interface, to provide easy, accurate, and dependable measurements of low-level SO_2.

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.

All T Series instruments offer an advanced color display, capacitive touch screen, intuitive user interface, flexible I/O, and built-in data acquisition capability. All instrument set up, control and access to stored data and diagnostic information is available through the front panel, or via RS232, Ethernet, or USB com ports either locally or by remote connection using the included APIcom™ software.

- ▸ **Ranges: 0-50 ppb to 0-20 ppm, user selectable**
- ▸ **Dual ranges and auto ranging**
- ▸ **Large, vivid, and durable color graphics display with touch screen interface**
- ▸ **Ethernet, RS-232, and (optional) USB com ports**
- ▸ **Front panel USB connections for peripheral devices and firmware upgrades**
- ▸ **8 analog inputs (optional)**
- ▸ **Adaptive signal filtering optimizes response time**
- ▸ **Temperature & pressure compensation**
- ▸ **Internal zero & span check (optional)**
- ▸ **Comprehensive internal data logging with programmable averaging periods**
- ▸ **Ability to log virtually any operating parameter**
- ▸ **Two-year warranty**

Specifications

General

Ranges:	Min: 0-50 ppb full scale
	Max: 0-20,000 ppb full scale (user selectable), dual ranges and auto ranging supported
Measurement Units:	ppb, ppm, µg/m^3, mg/m^3 (selectable)
Zero Noise:	< 0.2 ppb (RMS)
Span Noise:	< 0.5% of reading (RMS) above 50 ppb
Lower Detectable Limit:	0.4 ppb
Zero Drift:	< 0.5 ppb/24 hours
Span Drift:	< 0.5% of full scale/24 hours
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 Rate:	650 cm^3/min ±10%

Electrical Specifications

Power Requirements:	100V-120V, 220V-240V, 50/60 Hz
Analog Output Ranges:	10V, 5V, 1V, 0.1V (selectable)
Recorder Offset:	±10%

Communication Specifications

Included I/O:	1 x Ethernet: 10/100Base-T
	2 x RS232 (300-115,200 baud)
	Multidrop RS232
	2 x USB device ports
	8 x opto-isolated digital outputs
	6 x opto-isolated digital inputs
	4 x analog outputs
Optional I/O:	1 x USB com port
	1 x RS485
	8 x analog inputs (0-10V, 12-bit)
	4 x digital alarm outputs
	3 x 4-20mA current outputs

Physical Specifications

Operating Temperature Range:	5 - 40ºC (with EPA Equivalency)
Dimensions (HxWxD):	7" x 17" x 23.5" (178 x 432 x 597 mm)
Weight:	35.7 lbs (16.2 kg)

Certifications

US EPA:	EQSA-0495-100
MCERTS:	Sira MC 050067/04

How to Order

Model T100 includes:
- Two year warranty
- Internal pump
- Dual ranges and auto ranging
- 47mm diameter particulate filter
- 8 isolated digital outputs
- 6 isolated digital inputs
- RS-232 ports
- Multi-drop RS232
- Ethernet port
- USB ports for peripheral devices
- APIcom™ remote control software
- Select AC input voltage:
  - ☐ 100V - 120V ☐ 50Hz
  - ☐ 220V - 240V ☐ 60Hz
- Select DC output voltage:
  - ☐ 10V ☐ 5V
  - ☐ 1V ☐ 0.1V

Mounting Options:
- ☐ Rack mount brackets with chassis slides
- ☐ Rack mount brackets only

I/O Options:
- ☐ 4-20mA outputs (up to three channels)
- ☐ USB com port
- ☐ 8 Analog Inputs
- ☐ RS485

Other Options:
- ☐ NO optical filter (Recommended for high NO applications; Required for EN14212 approved configuration)
- ☐ Concentration alarm relays
- ☐ Consumables kit
- ☐ External Pump and Fittings
- ☐ O$_2$ 0-25% Paramagnetic sensor
- ☐ CO$_2$ 0-20% NDIR

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

Specifications exceed US EPA and Eignungsgeprüft requirements.
Specifications subject to change without notice.
Printed documents are uncontrolled.