Model T102   UV Fluorescence TRS Analyzer

The Model T102 TRS analyzer uses the proven UV fluorescence principle to measure Total Reduced Sulfur at levels commonly required for ambient air monitoring.

The Model T102 uses a high temperature external converter set at 850°C to allow conversion of H_2S, methyl mercaptan, dimethyldisulfide, and methyl-disulfide to SO_2 at this temperature with efficiency greater than 98%. A switching option alternately measures TRS and SO_2 while showing both readings concurrently on the front display.

All T Series instruments offer an advanced color display, capacitive touch screen, intuitive user interface, flexible I/0, 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 0-10 ppm TRS and up to 20 ppm SO_2, user selectable**
- **Independent 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**
- **Auto zero system**
- **Comprehensive internal data logging with programmable averaging periods**
- **Ability to log virtually any operating parameter**
- **Two-year warranty**

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

Specifications

General

Ranges:	TRS
	Min: 0-50 ppb Full scale Max: 0-10 ppm Full scale
	SO_2
	Up to 0-20 ppm Full scale (selectable, independent ranges and auto ranging supported)
Measurement Units:	ppb, ppm, $\mu g/m^3$, 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:	< 120 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) 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 Multidrop RS232 3 x 4-20mA current outputs

Physical Specifications

Operating Temperature Range:	5 - 40°C
	850°C (external converter)
Dimensions (HxWxD):	Analyzer: 7" x 17" x 23.5" (178 x 432 x 597 mm)
	Converter: 7" x 17" x 23.5" (178 x 432 x 597 mm)
Weight:	Analyzer: 37 lbs (16.8 kg)
	Converter: 16 lbs (7.3 kg)
	Converter: 26 lbs (11.8 kg) CE version

The values expressed above are in accordance with EPA definitions.
All error specifications are based on constant conditions.
Specifications subject to change without notice.
Printed documents are uncontrolled. SAL000043A (DCN 5815) T102/11.18.10

How to Order

Model T102 includes:

☐ Two year warranty
☐ Internal pump or external pump (optional)
☐ Independent ranges and auto ranging
☐ 47mm diameter particulate filter
☐ 8 isolated digital outputs
☐ 6 isolated digital inputs
☐ RS-232 ports
☐ 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

Calibration Options:

☐ Ambient zero and ambient span
☐ Zero scrubber and internal span source (IZS)

Mounting Options:

☐ Rack mount brackets with chassis slides
☐ Rack mount brackets only
☐ Handle

I/O Options:

☐ 4-20mA outputs (up to three channels)
☐ USB com port
☐ 8 Analog Inputs
☐ Multi-drop RS232
☐ RS485

Other Options:

☐ NO optical filter (Recommended for high NO_x applications.)
☐ Concentration alarm relays
☐ Expendables kit

For more information about the Teledyne API family of monitoring instrumentation products, call us or visit our website at

www.teledyne-api.com

CERTIFIED QUALITY MANAGEMENT SYSTEM
ISO 9001:2008
DNV