



Model T803 CO₂/O₂ Analyzer

The Model T803 CO₂/O₂ analyzer combines the non-dispersive infrared measurement principle within the model T801 and the proven paramagnetic measurement principle within the T802 in to a single analyzer. Both technologies give accurate and reliable results combined with product longevity, providing the best price performance value on the market.

The CO₂/O₂ analyzer is based on widely accepted sensor techniques producing an excellent, rugged product designed for extractive CEM or RATA applications.

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.

- ▶ **O₂ Range: 0-1% to 0-100%, CO₂ Range 0-1% to 0-20% 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**
- ▶ **Comprehensive internal data logging with programmable averaging periods**
- ▶ **Ability to log virtually any operating parameter**
- ▶ **Two-year warranty**

Specifications

General

CO ₂ Ranges:	Min: 0-1% Full scale Max: 0-20% Full scale (selectable, dual ranges and auto ranging supported)
Zero Noise:	< 0.02% (RMS)
Span Noise:	< 0.1% of reading (RMS)
Lower Detectable Limit:	< 0.04 %
Zero Drift:	< ±0.02%/24 hours; < ±0.05%/7 days
Span Drift:	< ±0.1%/7 days
Accuracy:	< ±(1.5% of range +2% of reading)
Temperature Coefficient:	< ± 0.01% per degree C
O ₂ Ranges:	Min: 0-1% Full scale Max: 0-100% Full scale (selectable)
Zero Noise:	< 0.02% (RMS)
Span Noise:	< 0.05% of reading (RMS)
Lower Detectable Limit:	< 0.04 %
Zero Drift:	< ±0.02%/24 hours; < ±0.05%/7 days
Span Drift:	< ±0.1%/7 days
Accuracy:	< ±0.1%
Linearity:	< ±0.1%
Temperature Coefficient:	< ± 0.01% per degree C
Rise and Fall Time:	< 60 seconds to 95%
Flow Rate:	120ml ±20ml/min
Humidity Range:	0-95% RH
Pressure Range:	25-31 in Hg

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
Dimensions (HxWxD):	7" x 17" x 23.5" (178 x 432 x 597 mm)
Weight:	28 lbs (12.7 kg)

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. SAL000067A (DCN 5815) T803/11.24.10

How to Order

Model T803 includes:

- ☐ Two year warranty
- ☐ Internal pump (optional)
- ☐ Dual 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

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:

- ☐ Internal pump
- ☐ Concentration alarm relays
- ☐ Expendables kit



9480 Carroll Park Drive ■ San Diego, CA 92121-5201
Ph. 858-657-9800 Fax 858-657-9816
Email api-sales@teledyne.com

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

www.teledyne-api.com

© 2010 Teledyne - Advanced Pollution Instrumentation, Inc.

