



TELEDYNE
ADVANCED POLLUTION INSTRUMENTATION
A Teledyne Technologies Company

MODEL **803E**

CO₂/O₂ Analyzer



- ▶▶ **Standard two year warranty**
- ▶▶ **O₂ Range 0-100%, CO₂ Range 0-20%**
- ▶▶ **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**
- ▶▶ **Critical orifices provide flow stability**

The NEW 803E uses the proven paramagnetic O₂ measurement principle, coupled with a state of the art CO₂ NDIR sensor. These are combined with the TAPI E series advanced microprocessor based electronics to provide a high performance analyzer giving accurate, dependable measurements of percent level Oxygen and Carbon Dioxide. This combination product is ideally suited for measuring extractive source emissions, and both paramagnetic O₂ and NDIR CO₂ are reliable tools used extensively for RATA's. The 803E provides a cost effective solution for both markets.

All 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 and pressure.

Stored data are easily retrieved through the serial port or optional no-cost Ethernet port and viewed 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 803E combines light-weight, rugged construction, ease of use, powerful diagnostics, modular design and outstanding performance to yield the ideal tool for today's air monitoring requirements.

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



MODEL 803E CO₂/O₂ Analyzer

Specifications

CO₂:

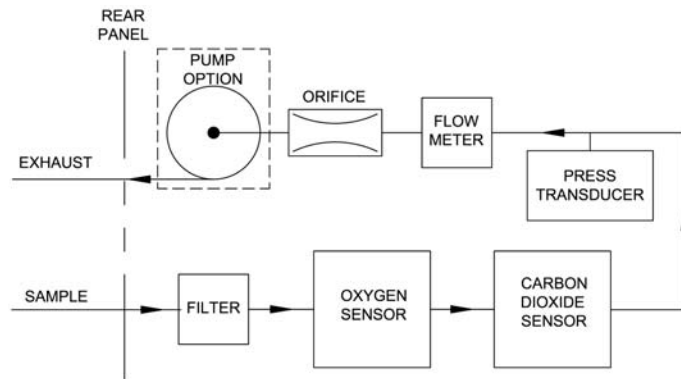
Ranges:	0-20% CO ₂
Zero Stability:	< 0.1% CO ₂ in 24 hours
Span Noise:	< 0.1% RMS CO ₂
Span Stability:	< 0.2% CO ₂ in 24 hours
Accuracy:	1.5% CO ₂ of range + 2% of reading
Linearity:	< 0.5% full scale CO ₂

O₂:

Ranges:	0-1% to 0-100% user selectable O ₂
Zero Stability	
Short Term:	< 0.1% O ₂ in 24 hours
Long Term:	< 0.2% O ₂ in 7 days
Span Noise:	< 0.05% O ₂
Minimum Detectable Change (MDC):	< 0.1% O ₂
Linearity:	< 0.1% O ₂
Repeatability:	< 0.01% O ₂

Lag Time:	10 seconds
Rise and Fall Time:	< 60 seconds to 95%
Sample Flow Rate:	Max/Min 130ml ± 20ml/min
Operating Temperature Range:	5 - 40°C
Humidity Range:	0-95% RH
Pressure Range:	25-31 in Hg
Dimensions (HxWxD):	7" (178 mm) x 17" (432 mm) x 23.5" (597 mm)
Weight:	28 lbs (12.7 kg)
Power:	100-120V, 220-240V 50/60Hz
Analog Outputs:	10V, 5V, 1V, 100mV, user selectable
Recorder Offset:	±10%
Serial Outputs:	Format (RS232/485, Ethernet, Multi-drop) One RS-232 port (DB-9 male), one RS-232 or RS-485 User Selectable (DB-9 female)
Status (Digital):	8 outputs, 6 inputs (opto-isolated), 6 alarm outputs (optional)
Current Output:	Optional 4-20mA, select up to three channels

Schematic



How to Order

Model 803E CO₂/O₂ Analyzer

includes::

- Standard two year warranty
- Selectable voltage (specify below)
- Auto ranging and dual ranges
- 8 isolated digital status outputs
- Dual bi-directional RS-232
- APLcom remote control software

Specify input AC voltage & frequency:

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

Specify output DC voltage:

- 10V 5V 1V 0.1V

Additional Options:

- Rack mount brackets (19") with chassis slides
- Rack mount brackets only
- 4-20mA outputs (specify up to three channels)
- Multi-drop RS-232 connection
- Ethernet port includes 7 ft. CAT-5 cable (disables one serial port)
- Internal pump

Accessories:

- RS-232 cable
- Expendables kit
- Ethernet cable

Specifications subject to change without notice. Printed documents are uncontrolled. SAL000034 A (DCN 5462) M803E 06/19/09.