



TELEDYNE INSTRUMENTS
Advanced Pollution Instrumentation
A Teledyne Technologies Company

MODEL **200EU**

Ultra-Sensitive NO/NO₂/NO_x Analyzer



- ▶▶ **Standard two year warranty**
- ▶▶ **Ranges, 0-5 ppb to 0-2000 ppb, user selectable**
- ▶▶ **Independent ranges for NO, NO₂, NO_x**
- ▶▶ **Lower Detectable Limit of 50 ppt**
- ▶▶ **Replaceable moly converter cartridge**
- ▶▶ **Temperature & Pressure compensation**
- ▶▶ **Catalytic ozone scrubber**
- ▶▶ **Digital status outputs provide instrument operating condition**
- ▶▶ **Adaptive signal filtering optimizes response time**
- ▶▶ **Continuous self checking with alarms**
- ▶▶ **Continuous automatic zero correction**
- ▶▶ **Bi-directional RS-232 ports for remote operation (optional RS-485 or Ethernet)**

The Model 200EU is based on the field-proven Model 200E Chemiluminescence Analyzer for measurement of NO-NO₂-NO_x. The Model 200EU offers sensitivity ranges of 0-5 ppb to 0-2000 ppb, with a lower detectable limit of 50 ppt. This sensitivity is coupled with improved noise and drift specifications for the most demanding ultra-low level measurements.

The time-proven, dependable design of the Model 200E has been combined with an enhanced performance pump and a special low noise photo-multiplier tube for greatly improved performance. In addition, a pre-reactor separates the NO-NO₂ reaction from the background chemiluminescence, allowing accurate auto-zeroing of the analyzer. The overall effect of these enhancements is an improved signal-to-noise ratio allowing much more sensitive measurements and minimizing interferences.

Like all instruments in the TAPI E Series, the Model 200EU includes built-in data acquisition capability using the analyzer's own internal memory. This allows the logging of multiple parameters including averaged or instantaneous concentration values, calibration data, and operating parameters such as pressures and flow rates.

Stored data are easily retrieved through the serial port or optional Ethernet port via APIcom or from the front panel, allowing the operator to perform predictive diagnostics and enhanced data analysis by tracking parameter trends.

Multiple averaging periods of one minute to one day are available automatically or manually. The Model 200EU can be used with an external NO_y converter for measuring reactive oxides of nitrogen.

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

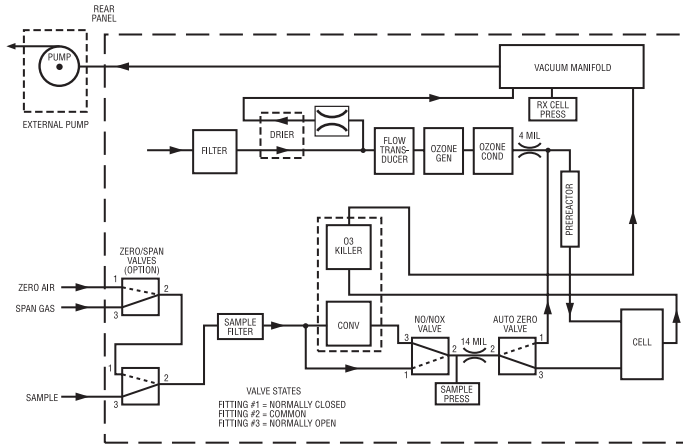


MODEL 200EU Ultra-Sensitive NO/NO₂/NO_x Analyzer

Specifications

Ranges:	0-5 ppb to 0-2000 ppb full scale, user selectable, independent NO, NO ₂ , NO _x ranges and autoranging supported	Dimensions (HxWxD):	7" (178 mm) x 17" (432 mm) x 23.5" (597 mm)
Units:	ppb, µg/m ³	Weight:	Analyzer 40 lbs (18 kg) External Pump 21 lbs (9.5 kg)
Zero Noise:	<25 ppt (RMS)	Power:	100V - 120V, 220V - 240V, 50/60 Hz, 275W
Span Noise:	<0, 25% of reading (RMS) above 50 ppb	Analog Outputs:	10V, 5V, 1V, 0.1V, selectable
Lower Detectable Limit (LDL):	50 ppt	Recorder Offset:	±10%
Zero Drift:	<0.1 ppb/24 hours, <0.2 ppb/7 days	Serial Outputs:	Serial Port 1: RS-232 (DB-9M) Serial Port 2: standard RS-232 or optional RS-485 (DB-9F), Ethernet
Span Drift:	<0.5% of reading/24 hours, <1% of reading/7 days	Status (Digital)	8 outputs, 6 inputs (opto-isolated), 4 alarm outputs (optional)
Lag Time:	<20 seconds	Current Output:	Optional 4-20mA, select up to three channels
Rise and Fall Time:	<50 seconds to 95%	Approvals:	CE
Linearity:	1% of full scale	NOTE: 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.	
Precision:	0.5% of reading above 50 ppb		
Sample Flow Rate:	1000 cc/min ±10%		
Operating Temperature Range:	5 - 35°C		

Schematic



How to Order

Model 200EU Ultra-Sensitivity NO, NO₂, NO_x Analyzer includes:

- Standard two year warranty
- External pump
- Independent NO, NO₂, NO_x ranges
- Auto ranging
- 47mm diameter particulate filter
- 8 digital status outputs, 6 inputs
- Bi-directional RS-232
- APIcom remote control software

Specify input AC voltage & frequency:

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

Specify output DC voltage:

- 10V 5V 1V 0.1V

Optional Equipment:

- 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)

Calibration Valves:

- Stainless steel valves for selection of customer-supplied zero and span gas

Accessories:

- RS-232 Cable
- Expendables Kit
- Spare Parts Kit
- Chassis carrying handle

Specifications subject to change without notice. Printed documents are uncontrolled. SAL000008 A (DCN 5058) M200EU/08/08/08.



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www.teledyne-api.com

