



The Model 500 CAPS True NO₂–NO_x–NO Analyzer



The Model 500 CAPS NO_x analyzer uses superior Cavity Attenuated Phase Shift (CAPS) Spectroscopy to measure True NO₂, NO_x, and NO gases. The instrument combines direct NO₂ measurements with highly efficient gas phase titration (GPT) to convert and measure the NO gas component. An automatic baseline reference cycle accounts and compensates for any potential baseline drift due to varying environmental conditions.

CAPS technology is inherently accurate and sensitive, uses very little power, and requires far less maintenance than Chemiluminescence. The Model 500 raises the bar for NO₂, NO_x, and NO measurement accuracy, while simultaneously reducing instrument operation and maintenance costs.

- Large, vivid, and durable color touchscreen display
- Low power consumption
- Lifetime technical support by phone and email
- Low cost of ownership
- Long-life particulate sample filter
- Standard two-year warranty

500 Specifications

■ Ranges	Min: 0 - 5 ppb full scale Max: 0 - 1,000 ppb full scale
■ Measurement Units	ppb, ppm, $\mu\text{g}/\text{m}^3$, mg/m^3 (user-selectable)
■ Zero Noise	< 0.05 ppb (RMS)
■ Span Noise	< 0.2% of reading + 50 ppt (RMS)
■ Lower Detectable Limit	< 0.1 ppb
■ Zero Drift	< 0.2 ppb / 24 hours
■ Span Drift	< 0.5% of reading / 24 hours
■ Response Time	< 60 seconds to 95%
■ Linearity	1% of full scale
■ Precision	0.5% of reading above 5 ppb
■ Sample Flow Rate	1000 cc/min \pm 10%
■ Power Requirements	110W; 100-250VAC (50-60Hz)
■ Included I/O	1 x Ethernet (TCP/IP) 1 x RS232 or RS485 (user-selectable) 2 x front panel USB device ports
■ Optional I/O	Universal Analog Output Board includes (all user-definable): 4 x Isolated Voltage Outputs (5V, 10V; user-selectable) 3 x Individually Isolated Current Outputs (4-20mA) Digital I/O Expansion Board includes (all user-definable): 3 x Isolated Digital Input Controls 5 x Isolated Digital Output Controls 3 x Form C Relay Alarm Outputs
■ Operating Temperature Range	0 - 40°C
■ Dimensions (HxWxD)	7" x 17" x 23.5" (178 x 432 x 597 mm)
■ Weight	33 lbs (15kg)

Specifications subject to change without notice.
All specifications are based on constant conditions.

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