

# Model N200M

## Mid-Range Chemiluminescence NO<sub>x</sub>-NO<sub>2</sub>-NO Analyzer



- ▶ Single or dual range capability
- ▶ Molybdenum or stainless-steel NO<sub>2</sub> converter
- ▶ Automatic converter efficiency compensation
- ▶ Customizable alerts and continuous self-checking
- ▶ Wide operating temperature range
- ▶ Internal DC-powered pump (optional)
- ▶ Integrated Oxygen (O<sub>2</sub>) sensor (optional)

### N Series Platform Features



Color Touch-Screen  
Graphics Display



Two Front Panel USB Ports



Modular Internal Hardware  
Design



All DC-powered Internal  
Components



Large Internal Data Storage



Serial and TCP/IP Ethernet  
Included



Digital and Analog  
Expansion Options



Indicator Illuminated Soft  
Power Switch



Split Fold-Down Rear Panel

The Model N200M uses the proven chemiluminescence detection principle, combined with a state-of-the-art modular architecture, and intuitive operating software to provide accurate and dependable measurements of Nitric Oxide (NO), Nitrogen Dioxide (NO<sub>2</sub>) and total Nitrogen Oxides (NO<sub>x</sub>) gases for use in extractive type CEM systems.

The instrument reaction cell uses a diffusion-based inlet nozzle to minimize build-up of contamination on the optics, reducing the frequency of maintenance and minimizing drift. Stability is further enhanced using an automatic baseline reference cycle which compensates for any potential baseline drift. The result is sensitive, accurate, and dependable performance under the harshest operating conditions.

Instrument functions and controls are managed through a series of integrated microprocessor-controlled modules utilizing a simple and reliable CAN Bus communications architecture. Each module is independently assembled and calibrated allowing easy and fast field replacement to maximize instrument uptime.

Intuitive operation and calibration of all N Series products is achieved through the NumaView™ Software interface. The graphical user interface (GUI) is customizable, giving the user fast and efficient access to instrument status, as well as measurement data and diagnostic parameters in either numeric or graphical form. NumaView™ Remote Software (included at no charge) provides the same virtual interface and complete instrument control, as well as access to the instrument's large internal data storage buffer from a remote PC or tablet.



# N200M Specifications

● Measurement Units	ppm, mg/m <sup>3</sup> (selectable)
● Response Time	< 80 seconds to 95% (in switching mode)
● Ranges	Min: 0 - 1 ppm full scale Max: 0 - 200 ppm full scale (selectable, independent NO, NO <sub>2</sub> , NO <sub>x</sub> ranges with dual range supported)
● Sample Flow Rate	250 cc/min ±10%
● Zero Noise	< 20 ppb (RMS)
● Span Noise	< 0.2% of reading (RMS) above 20 ppm
● Lower Detectable Limit	< 40 ppb
● Precision	0.5% of reading above 5 ppm
● Linearity	1% of full scale
● Zero Drift	< 20 ppb/24 hours
● Span Drift	< 0.5% of reading/24 hours
● Included I/O	1 x Ethernet (TCP/IP) 1 x RS232 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: 3 x Isolated Digital Input Controls 5 x Isolated Digital Output Controls (user-definable) 3 x Form C Relay Alarm Outputs (user-definable)
● Weight	Analyzer: 35 lbs (15.9 kg) External pump: 22 lbs (10 kg)
● Dimensions (HxWxD)	7" x 17" x 24.3" (178 x 432 x 617 mm)
● Operating Temperature	0 - 40°C
● Power	Analyzer: 100V-240V, 50/60 Hz, Typical consumption 100W External pump: 115V, 60 Hz, Typical consumption 165W 220-240V, 50/60 Hz, Typical consumption 165W

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

**All N Series instruments include a 2-year manufacturer's warranty as well as email and phone support for the lifetime of the instrument.**



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