

Model N300M

Mid-Range Gas Filter Correlation CO Analyzer



- ▶ Single or dual range capability
- ▶ Customizable alerts and continuous self-checking
- ▶ Wide operating temperature range
- ▶ Internal DC-powered vacuum pump
- ▶ Integrated Oxygen (O₂) or Carbon Dioxide (CO₂) sensor (optional)
- ▶ 5-year warranty on Gas Filter Correlation (GFC) wheel

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 N300M is a microprocessor-controlled analyzer used to determine the concentration of carbon monoxide (CO) in a sample gas. The analysis method is based on the Beer-Lambert law.

The N300M uses Gas Filter Correlation (GFC) to overcome the interfering effects of various other gases (such as water vapor) that also absorb IR. The analyzer passes the IR beam through a spinning wheel made up of two separate chambers: one containing a high concentration of CO known as the reference, and the other containing a neutral gas known as the measure. The concentration of CO in the sample chamber is computed by taking the ratio of the instantaneous measure and reference values and then compensating the ratio for sample temperature and pressure.

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.



N300M Specifications

• Measurement Units	ppm, mg/m ³ (selectable)
• Response Time	< 70 seconds to 95%
• Ranges	Min: 0 - 5 ppm full scale Max: 0 - 5,000 ppm full scale (selectable, dual range supported)
• Sample Flow Rate	800 cc/min ±10%
• Zero Noise	< 0.1 ppm (RMS)
• Span Noise	< 0.5% of reading (RMS) above 20 ppm
• Lower Detectable Limit	< 0.2 ppm
• Precision	1% of reading
• Linearity	±1% of full scale
• Zero Drift	< 0.5 ppm/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	40 lbs (18.1 kg)
• Dimensions (HxWxD)	7" x 17" x 24.3" (178 x 432 x 617 mm)
• Operating Temperature	0 - 40°C
• Power	100V-240V, 50/60 Hz, Typical consumption <150W

*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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