Model N400

UV Absorption O_3 Analyzer

- Customizable alerts and continuous self-checking
- Wide operating temperature range
- Single pass ultraviolet absorption
- Adaptive signal filtering optimizes response time
- Internal DC-powered vacuum pump
- Internal zero/span valves and IZS (optional)
- Optional 47mm membrane or long-life sample particulate filter

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 N400 Ultraviolet (UV) Absorption analyzer uses a system based on the Beer-Lambert law for measuring low ranges of ozone in ambient air.

A 254 nm UV light signal is passed through the sample cell where it is absorbed in proportion to the amount of ozone present. Periodically, a switching valve alternates measurement between the sample stream and a sample that has been scrubbed of ozone. The result is a true, stable ozone measurement.

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. The long-life sample filter option further improves efficiency with a ~6 month exchange interval in ambient air quality monitoring applications.

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.

N400 Specifications

• Measurement Units	ppb, ppm, µg/m^3, mg/m^3 (selectable)
• Response Time	< 30 seconds to 95%
• Ranges	Min: 0 - 100 ppb full scale Max: 0 - 10,000 ppb full scale (selectable, dual-range supported)
• Sample Flow Rate	800 cc/min ±10%
• Zero Noise	< 0.2 ppb (RMS)*
• Span Noise	< 0.5% of reading (RMS) above 100 ppb
• Lower Detectable Limit	< 0.4 ppb*
• Precision	< 0.5% of reading above 100 ppb
• Linearity	1% of full scale
• Zero Drift	< 1.0 ppb/24 hours
• Span Drift	< 1% 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	28 lbs (12.7 kg) 30.6 lbs (13.8 kg) with IZS Option
• Dimensions (HxWxD)	7" x 17" x 24.3" (178 x 432 x 617 mm)
• Operating Temperature	0 - 45°C (with US EPA Approval)
• Power	100V-240V, 50/60 Hz, Typical consumption 40W
• Certifications	US EPA: EQOA-0992-087

*with 80 Sample Digital Filter

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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