Model N100

UV Fluorescence SO_2 Analyzer

- Single or dual range capability
- Hydrocarbon "kicker" scrubber
- Internal DC-powered vacuum pump
- Customizable alerts and continuous self-checking
- Wide operating temperature range
- Internal zero and span valves (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 N100 instrument uses the proven UV-fluorescence principle, combined with a state-of-the-art modular architecture, and intuitive operating software to provide accurate and dependable measurements of low-level Sulfur Dioxide (SO_2) gas.

The instrument's UV light source is continuously flashed to provide exceptional stability and long lifetime. Any potential lamp intensity fluctuations or detector drift is automatically managed in real-time using a sophisticated combination of reference readings during the lamp light/dark cycles. Hydrocarbon gases that fluoresce at the same wavelength as SO_2 gas are removed from the sample stream through a scrubber (i.e. kicker) and prior to detection to eliminate any potential interferences. The long-life sample filter option further improves efficiency with a ~6 month exchange interval in ambient air quality monitoring applications.

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.

N100 Specifications

• Measurement Units	ppb, ppm, µg/m^3, mg/m^3 (selectable)
• Response Time	< 120 seconds to 95%
• Ranges	Min: 0 - 50 ppb full scale Max: 0 - 20,000 ppb full scale (selectable, dual-range supported)
• Sample Flow Rate	650 cc/min ±10%
• Zero Noise	< 0.2 ppb (RMS)
• Span Noise	< 0.5% of reading (RMS) above 50 ppb
• Lower Detectable Limit	< 0.4 ppb
• Precision	0.5% of reading above 50 ppb
• Linearity	1% of full scale
• Zero Drift	< 0.5 ppb/24 hours
• Span Drift	< 0.5% of full scale/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	31 lbs (14.1 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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