

# Model N100H

## High Range UV Fluorescence SO<sub>2</sub> Analyzer



- ▶ Single or dual range capability
- ▶ External vacuum pump
- ▶ Customizable alerts and continuous self-checking
- ▶ Fast response (< 40s to 95%)
- ▶ Advanced, adaptive digital signal filtering
- ▶ Wide operating temperature range
- ▶ Hydrocarbon "kicker" scrubber (option)

### 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 N100H 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 high range SO<sub>2</sub> gas. The instrument includes interferent rejection, providing a simple and precise solution for a broad range of continuous emission monitoring systems (CEMS) and stack testing applications.

The instrument's UV light source is continuously flashed to provide exceptional stability and long lifetime. The instrument design provides minimal quenching by O<sub>2</sub> or CO<sub>2</sub> and less than a 0.1% response to water in the sample, and special optical filtering reduces the effects of NO interference. 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.

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.



# N100H Specifications

• Measurement Units	ppm, mg/m <sup>3</sup> (selectable)
• Response Time	< 40 seconds to 95%
• Ranges	Min: 0 - 10 ppm full scale Max: 0 - 5,000 ppm full scale (selectable with dual range supported)
• Sample Flow Rate	700 cc/min ±10%
• Zero Noise	0.1 ppm (RMS)
• Span Noise	< 1% of reading (RMS) above 10 ppm
• Lower Detectable Limit	< 0.2 ppm
• Precision	0.5% of reading above 10 ppm
• Linearity	1% of full scale
• Zero Drift	< 1 ppm/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	Analyzer: 28 lbs (12.7 kg) External pump: 21 lbs (9.5 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 145W 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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