

NOVA

Dependable Gas Analysis Solutions



460 SERIES CONTINUOUS PROCESS INFRARED SULFUR DIOXIDE ANALYZER

APPLICATIONS

For continuous analysis of sulfur dioxide (SO₂) in process gas streams using an infrared detector or electrochemical sensor. Percent and PPM levels available as Models 460, 460L, or 461 respectively.

FEATURES

- Percent (460) or PPM (460L) SO₂ by infrared detector
- Low range PPM (461) SO₂ by electrochemical sensor
- NDIR detector is sensitive, reliable, and non-depleting
- Bright digital readout
- Fast response (T90 - less than 15 seconds)
- Microprocessor control with push button calibration
- Easy-to-maintain modular layout
- Sensor is temperature controlled for maximum stability
- Built-in sample pump, flowmeter, and filters
- 4 - 20 mA output

OPTIONS

- Hi/Low gas, low flow, and diagnostic alarms available
- Isolated analog, RS232, RS485, MODBUS®, and Ethernet outputs available
- Sample conditioning systems available
- Cabinet purge system available for use in hazardous areas
- Full automatic calibration with touch screen LCD display
- Cold weather package for operation to -5°F (-20°C)
- Cabinet coolers can be fitted to most models
- High temperature filters and probes

CALIBRATION

- Easily zero checked on ambient air
- Span using a known SO₂ in nitrogen (N₂) calibration gas.



Wall Mount (N4) Enclosure



Wall Mount Enclosure with Purge Kit
for hazardous-rated areas

NOVA ANALYTICAL SYSTEMS

www.nova-gas.com

DESCRIPTION

The Nova 460 Series SO₂ analyzers utilize a reliable, microprocessor-based, non-dispersive infrared detector or electrochemical sensor specific to SO₂. In operation, the internal sample pump draws the sample gas through the filter, secondary filter, flow meter, and then on to the sensor/detector. The detector output is digitally linearized and then displayed as percent or PPM SO₂ on the digital meter. The output is also available as an analog or digital signal. A regulator will be supplied for applications that have a pressurized sample.

MODELS

There are six types of mounting configurations available. All tubing connections are ¼" SS FPT.

- 460N4 - Wall mounted NEMA4 (IP65) enclosure rating
- 460N4X - Wall mounted corrosion-resistant NEMA4X (IP65) enclosure rating
- 460RM - 19" (483mm) rack mounted, on sliding rails
- 460Div1 - NEMA4 w/ Haz. Purge Kit - for Class 1 Div 2 areas
- 460Div2 - NEMA4 w/ Haz. Purge Kit - for Class 1 Div 2 areas
- 461N4 - Low Range PPM SO₂ by electrochemical sensor

SPECIFICATIONS

Nova reserves the right to specification changes which may occur with advances in design without prior notice.

Description

Method of Detection: Microprocessor-based single cell NDIR; low range PPM SO₂ by electrochemical sensor

Ranges Available: 460L - 0-2000, 0-3000, 0-5000 PPM SO₂
460 - 0-1, 0-5, 0-10, 0-20, 0-30, 0-50, 0-100% SO₂
461 - 0-200, 0-1000 PPM SO₂

Resolution: 0.1% SO₂ on % versions, 10 PPM SO₂ on PPM versions

Accuracy and Repeatability: 1% of full scale

Drift: Less than 2% of full scale per month.

Response Time (T-90): Less than 15 seconds to T-90

Ambient Temperature Range: 40-122°F (5-50°C). Lower temperatures (-20°C, -5°F) with Cold Weather Package.

Linearity: ±1% of full scale

Size and Weight: Physical data will vary depending on enclosure style and options required

Power: 115VAC 60Hz (220VAC 50Hz available)

Output Options: 4-20ma into 500 ohms non-isolated standard
Isolated 4-20mA, RS232, RS485, MODBUS®, Ethernet outputs optional

Alarms: High and/or low alarm contacts available, relay contacts SPDT 5A @ 220VAC rating.
Low flow alarm optional

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UNIQUE APPLICATIONS

All Nova analyzers are built using proven technologies and techniques. If this product does not suit your application, please contact Nova at 1-800-295-3771. In many cases, we are able to build an analyzer specific to your needs.



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