

# 311 SERIES

## PORTABLE ANALYZER FOR SULFUR DIOXIDE IN PRE-CLEANED FLUE GAS OR AMBIENT AIR









#### **APPLICATIONS**

Analysis of sulfur dioxide (SO<sub>2</sub>) by electrochemical cell in pre-cleaned and dried flue gas or ambient air.

### **FEATURES**

- Rugged design that is easy to operate and maintain
- · Fast warm-up and response
- Replaceable electrochemical SO<sub>2</sub> sensor
- · Digital readout meter with backlight
- Modular layout that is easy to maintain
- Rechargeable battery operation
- · Built-in sample pump, filter and flow meter
- Rapid reading recovery after SO<sub>2</sub> 'overdose'
- Stainless steel probe with sample hose
- Weatherproof (WP) cabinet with clear Lexan cover

#### **OPTIONS**

- 4-20mA recorder output
- Suitcase (K) style cabinet available
- Detachable/portable datalogger

#### **CALIBRATION**

- · Air for zero
- Analyzed calibration gas mixture of PPM SO<sub>2</sub> in air for span



Weatherproof (WP) Enclosure



Suitcase (K) Enclosure

#### DESCRIPTION

The Nova 311 Series Portable SO<sub>2</sub> Analyzer utilizes a reliable, customer-replaceable electrochemical sensor which responds quickly to the SO<sub>2</sub> present in the gas sample. Its life expectancy is between 3 and 4 years. In operation, a built-in sample pump draws in the gas sample in through the sampling tube, filter, and flow meter. It then flows on into the sensor where the SO<sub>2</sub> is detected and digitally displayed on an LCD meter. The meter may also be backlit for use in dark areas.

A rechargeable battery provides enough power to the pump and electronics for about 20 hours of continuous operation. The analyzer can still be operated while it is being charged. A red LED light on the front panel indicates when to recharge. A green LED light indicates that it is receiving charging power. A recharger is included.

#### **SPECIFICATIONS**

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

Description	
Method of Detection:	Customer replaceable electrochemical SO <sub>2</sub> sensor
Ranges Available:	0-2000 PPM SO <sub>2</sub>
Resolution:	1 PPM
Accuracy and Repeatability:	±1-2% of full scale, based on a 0-2000 PPM range
Drift:	Less than 0.5% full scale per day
Response Time (T-90):	20-30 seconds for 90% of step change
Ambient Temperature Range:	0-40°C (32° to 105°F)
Linearity:	±1% of full scale
Size and Weight:	WP style - approx. 11½" L x 8" W x 7¼" H @ 8 lbs (29 x 20 x 18 cm @ 3.6 kg) K style - approx. 14" L x 10½" W x 6" H @ 12 lbs (36 x 27 x 15 cm @ 5.5 kg)
Power:	AC/DC operation, 115VAC/60Hz for recharging (other voltages available)
Output Options:	4-20mA
Alarms:	High SO₂ alarm with LED (optional)

## **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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