

## 5300 SERIES

### NEXT GENERATION PORTABLE FLUE GAS ANALYZER



### APPLICATIONS

For spot-check measurement of oxygen (O<sub>2</sub>), carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>), oxides of nitrogen (NO & NO<sub>2</sub>) and sulfur dioxide (SO<sub>2</sub>) emissions. For checking combustion efficiency, and burner & control performance on furnaces, heaters and boilers. May be used in commercial, industrial and residential settings.

### FEATURES

- Same rugged easy-to-use design as traditional Nova portable analyzers, but approx. 65% smaller and 50% lighter
- Fast warm-up and accurate response
- Built-in sample pump & condensate removal
- Rechargeable lithium ion battery; up to 8hrs use per charge
- Rugged touch-screen display of gas readings
- Calculated values e.g. combustion efficiency, O<sub>2</sub> normalization, excess air, unit conversion ppm to mg/m<sup>3</sup> for ppm gases measured
- Local USB data logging creates CSV files
- Built-in trouble-shooting prompts
- Electrochemical sensors for O<sub>2</sub>, CO, NO, NO<sub>2</sub>, and SO<sub>2</sub>
- CO<sub>2</sub> actually measured by infrared detector - not calculated
- Rapid reading recovery on CO, NO, NO<sub>2</sub>, or SO<sub>2</sub> 'overdose'
- Use on flue gas from any fuel; pays for itself in months through fuel savings



5300 series with optional printer

Optional Ice Bath Precooler



### OPTIONS

- Stack temperature probe and readout
- Various sample probes; including high temperature
- Built-in printer

### CALIBRATION

- Ambient air for O<sub>2</sub> span and CO, CO<sub>2</sub>, NO, NO<sub>2</sub>, and SO<sub>2</sub> zero
- On analyzed gas mixtures of CO and CO<sub>2</sub> in nitrogen, NO & NO<sub>2</sub> in nitrogen, and SO<sub>2</sub> in nitrogen for span (also zeroes O<sub>2</sub>)

## DESCRIPTION

The Nova 5300 Series Portable Flue Gas analyzer is built on the NovaNOW next generation rugged portable platform. This series has been designed for accuracy, reliability, ease of use and ease of service, providing a detailed spot-check analysis of flue gas composition. The 5300 uses customer-replaceable electrochemical sensors that respond quickly to the O<sub>2</sub>, CO, NO, NO<sub>2</sub>, and SO<sub>2</sub> present in the flue gas sample. The O<sub>2</sub> sensor life expectancy is typically 3-4 years. The CO, NO, NO<sub>2</sub>, and SO<sub>2</sub> sensor life is typically 2-3 years. The infrared CO<sub>2</sub> sensor should not need to be replaced under normal conditions of use.

A rechargeable lithium ion battery provides enough power for about 8 hours of continuous operation and the analyzer can be used while it is being recharged. The 5300 series case is small but rugged and dust & water resistant when closed. Stack temperature measurement and built-in printer that also shows date & time are optionally available on any model.

## MODELS

- 5301-A: O<sub>2</sub> only
- 5301-B: CO only
- 5301-C: CO<sub>2</sub> only
- 5301-D: NO only
- 5302-A: O<sub>2</sub> & CO
- 5303-A: O<sub>2</sub>, CO, & NO
- 5303-B: O<sub>2</sub>, CO<sub>2</sub>, & CO
- 5304-A: O<sub>2</sub>, CO<sub>2</sub>, CO, & NO
- 5304-B: O<sub>2</sub>, CO, NO, & SO<sub>2</sub>
- 5305-A: O<sub>2</sub>, CO<sub>2</sub>, CO, NO, & SO<sub>2</sub>
- 5306-A: O<sub>2</sub>, CO<sub>2</sub>, CO, NO, NO<sub>2</sub>, & SO<sub>2</sub>
- Stack temperature, NO, NO<sub>2</sub>, SO<sub>2</sub>, CO<sub>2</sub>, may be separately added to any model

## SPECIFICATIONS

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

Description	
<b>Gases Measured:</b>	Customer replaceable electrochemical O <sub>2</sub> , CO, SO <sub>2</sub> , NO, & NO <sub>2</sub> sensors Solid state infrared detector for CO <sub>2</sub>
<b>Ranges Available:</b>	0-25.0% O <sub>2</sub> 0-20.0% CO <sub>2</sub> 0-200 up to 0-9999 PPM CO 0-200 up to 0-5000 PPM NO 0-200 up to 0-800 PPM NO <sub>2</sub> 0-200 up to 0-2000 PPM SO <sub>2</sub> 32-1800°F (0-1000 °C) net stack temperature
<b>Resolution:</b>	0.1% on percent ranges; 1 PPM on PPM ranges; 1°F (1°C) stack temperature
<b>Accuracy:</b>	±1-2% of full scale
<b>Drift:</b>	< 2% full scale per 8 hours of continuous operation
<b>Response Time (T-90):</b>	< 30 seconds for 90% of O <sub>2</sub> , CO, CO <sub>2</sub> and SO <sub>2</sub> , < 60 seconds for 90% NO and NO <sub>2</sub>
<b>Ambient Temperature Ranges:</b>	32° to 122°F (0 to 50°C)
<b>Linearity:</b>	±1% of full scale for each gas measured
<b>Size and Weight:</b>	approx. 26 x 18 x 13 cm @ 3.4 kg (10" x 7" x 5" @ 7.5lbs)
<b>Power:</b>	12V battery operation. 115VAC 60Hz for recharging (220VAC 50Hz available)
<b>Output options:</b>	CSV log files written to USB memory stick

## UNIQUE APPLICATIONS

All NovaNOW 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.



NOVA ANALYTICAL SYSTEMS  
(A UNIT OF TENOVA GOODFELLOW INC.)

IN USA:  
1925 Pine Avenue • Niagara Falls, NY • 14301  
Tel: 1-800-295-3771 • 716.285.0418 • Fax: 716.282.2937  
IN CANADA:  
270 Sherman Avenue North • Hamilton, ON • L8L 6N5  
Tel: 905.545.2003 • Fax: 905.545.4248  
email: sales@nova-gas.com  
websales@nova-gas.com



www.nova-gas.com