

# NOVA

Dependable Gas Analysis Solutions



## 375 SERIES PORTABLE FLUE GAS ANALYZER FOR OXYGEN, CARBON MONOXIDE, & CARBON DIOXIDE

### APPLICATIONS

Analysis of oxygen (O<sub>2</sub>), carbon monoxide (CO), and carbon dioxide (CO<sub>2</sub>). For checking the combustion efficiency, and burner & control performance of furnaces, heaters, and boilers. May be used in commercial, industrial, and residential applications.

### FEATURES

- CO<sub>2</sub> actually measured by infrared detector, not calculated
- Rugged design that is easy to operate
- Fast warm up and response
- Dual CO range: 0-2000 PPM & 0-4.00%
- Rapid reading recovery after CO 'overdose'
- Digital readout meters with backlight
- Modular design that is easy to maintain
- Rechargeable battery operation
- Built-in sample pump, filter and flow meter
- Continuous condensate removal
- Weatherproof (WP) cabinet with clear Lexan cover
- Stainless steel probe with sample hose
- Use on any fuel
- Pays for itself in months through fuel savings

### OPTIONS

- Outputs of 0-1V or 4-20mA
- Stack temperature readout (375T)
- Suitcase (K) style cabinet available
- Detachable/portable data logger

### CALIBRATION

- Air for O<sub>2</sub> span and CO/CO<sub>2</sub> zero
- Analyzed gas mixture of CO<sub>2</sub> and CO in nitrogen for span



Weatherproof (WP) Enclosure



Suitcase (K) Enclosure



Optional  
Ice-Bath  
Precooler

NOVA ANALYTICAL SYSTEMS

[www.nova-gas.com](http://www.nova-gas.com)

## DESCRIPTION

The Nova 375 Series Portable Flue Gas Analyzers have been designed for accuracy, reliability, ease of use and ease of service, providing a detailed analysis of flue gas composition. The sensors respond quickly to oxygen, CO<sub>2</sub>, and CO present in the flue gas sample. The O<sub>2</sub> and CO sensor life expectancy is between 3 and 4 years. The CO<sub>2</sub> detector life is infinite under normal conditions of use, unless contaminated. The O<sub>2</sub> and CO sensors are customer-replaceable. The infra red CO<sub>2</sub> sensor should not need to be replaced.

In operation, a built-in sample pump draws in the flue gas sample through the S.S. probe, 12 ft. (4 m) sample hose, condensate removal filter, secondary filter and flow meter and then on to the three sensors. The detected O<sub>2</sub>, CO<sub>2</sub>, and CO are displayed on digital meters which have a switchable backlight for use in dark areas. A special water separating filter and separate drain pump continuously remove condensate from the sample so the analyzer can be operated for long periods unattended.

The Nova 375T version also indicates stack temperature for doing fuel efficiency calculations. The temperature sensor is built into the sampling probe. Efficiency charts for each fuel are provided.

A rechargeable 'gel cell' battery provides enough power for about 16 hours of continuous operation and the analyzer can be used while it is being recharged. A red LED tells when to recharge and a green LED verifies that it is receiving recharging power. The recharger is included.

## SPECIFICATIONS

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

Description		
<b>Method of Detection:</b>	Customer replaceable electrochemical oxygen and CO sensors Solid state infra red detector for CO <sub>2</sub>	
<b>Ranges:</b>	0-25.0% Oxygen 0-20.0% CO <sub>2</sub> <i>(other CO<sub>2</sub> ranges available)</i>	0-1800°F (0-1000°C) stack temperature (Model 375T) 0-2000 PPM and 0-4.00% CO - switch selectable <i>(lower PPM ranges available without switch-selectable percent display)</i>
<b>Accuracy and Repeatability:</b>	±1-2% of full scale	
<b>Drift:</b>	< 2% full scale per 8 hours of continuous operation	
<b>Response Time (T-90):</b>	10-15 seconds for O <sub>2</sub> ; 20-30 seconds for CO and CO <sub>2</sub>	
<b>Ambient Temperature Range:</b>	32° to 105°F (0-40°C)	
<b>Linearity:</b>	±1.0% of full scale for each gas measured	
<b>Size and Weight:</b>	WP style approx. 16" L x 4 1/2" H x 8" D @ 13 lbs (40.6 x 20.3 x 10.8 cm @ 5.6 kg) K style - approx. 18" L x 7" H x 12" D @ 15 lbs (45.7 x 30.5 x 17.8 cm @ 6.8 kg)	
<b>Power:</b>	AC/DC operation. 115VAC 60Hz for recharging (other voltages available)	
<b>Output Options:</b>	4-20 mA or 0-1 VDC	

## UNIQUE APPLICATIONS

The 375 Series should not be used for detecting these gases in ambient atmospheres for personnel safety purposes. 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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