

NOVA

Dependable Gas Analysis Solutions



376 SERIES PORTABLE FLUE GAS ANALYZER FOR OXYGEN, CARBON MONOXIDE, CARBON DIOXIDE, & OXIDES OF NITROGEN (NO_x)

APPLICATIONS

For the analysis of oxygen (O₂), carbon monoxide (CO), carbon dioxide (CO₂) and oxides of nitrogen (NO_x as NO) in flue gas from furnaces, heaters, and boilers. May be used on commercial, industrial, and residential combustion equipment.

FEATURES

- CO₂ actually measured by infrared detector, not calculated
- Rugged design that is easy to operate and maintain
- Fast warm up and response
- Dual CO range: 0-2000 PPM & 0-4.00%
- Rapid reading recovery after CO or NO 'overdose'
- Digital readout meters with backlight
- Rechargeable battery operation
- Built-in sample pump, filter and flow meter
- Active condensate removal
- Weatherproof (WP) cabinet with clear Lexan cover
- Stainless steel probe with sample hose
- Use on flue gas from any fuel
- Pays for itself in months through fuel savings

OPTIONS

- Outputs of 0-1V or 4-20 mA
- Stack temperature readout (376T)
- Suitcase (K) style cabinet available
- Gas alarms with LED warning
- Detachable/portable data logger

CALIBRATION

- Air for O₂ span and CO/CO₂ zero
- Analyzed gas mixtures of CO₂, CO, and NO in nitrogen for span



Weatherproof (WP) Enclosure



Suitcase (K) Enclosure



Optional Precooler for hot or wet sample gases

NOVA ANALYTICAL SYSTEMS

www.nova-gas.com

DESCRIPTION

The Nova 376 Series Portable Analyzers provide a detailed analysis of flue gas composition. They have been designed for accuracy, reliability, ease of use and service. The sensors respond quickly to the gases of interest present in the flue gas sample. Under normal conditions of use, the O₂, CO, and NO_x sensors each have a life expectancy of between 3 and 4 years, and are customer-replaceable. The CO₂ 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 flowmeter, and then on to the four sensors. The detected O₂, CO₂, CO, and NO_x are displayed on digital meters which have a switchable backlight for use in dark areas. The sensors do not require special SO₂ scrubbing chemicals as do some types of analyzers.

The Nova 376T version also indicates stack temperature for doing fuel efficiency calculations. The temperature sensor is built into the sampling probe. A rechargeable 'gel cell' battery provides enough power for about 8 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.

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 O ₂ , CO, and NO sensors. Solid state infra red detector for CO ₂ .	
Ranges: <i>(Other ranges available)</i>	0-25.0% O ₂ 0-20.0% CO ₂	0-2000 PPM and 0-4.00% CO - Switch selectable 0-200 to 0-2000 PPM NO _x (as NO) ranges available 0-1800°F (0-1000°C) stack temperature (Model 376T)
Accuracy and Repeatability:	Within ± 0.1% O ₂ and CO ₂ ; ± 2 PPM CO and NO	
Drift:	2% full scale per 8 hours of continuous operation	
Response Time (T-90):	10-15 seconds for O ₂ ; 20-30 seconds for CO, NO, and CO ₂	
Ambient Temperature Range:	32° to 105°F (0-40°C)	
Linearity:	± 1.0% of full scale for each gas measured	
Size and Weight:	WP style approx. 16" L x 8" W x 7¼" H @ 13 lbs (41 x 20 x 18 cm @ 5.6 kg) K style - approx. 18" L x 12" W x 7" H @ 15 lbs (46 x 30.5 x 18 cm @ 6.8 kg)	
Power:	115VAC 60Hz for recharging (other voltages available)	
Output Options:	4-20 mA or 0-1 VDC	

UNIQUE APPLICATIONS

The 376 Series should not be used for detecting these gases in ambient atmospheres for personnel safety monitoring. 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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