

NOVA

Dependable Gas Analysis Solutions



352 SERIES

PORTABLE FLUE GAS ANALYZER FOR OXYGEN, CARBON MONOXIDE & COMBUSTIBLES

APPLICATIONS

Analysis of oxygen (O₂), carbon monoxide (CO), and combustibles. For checking the combustion efficiency, and burner & control performance of furnaces, heaters, and boilers. May be used in commercial, industrial, and residential settings.

FEATURES

- Rugged design that is easy to operate and maintain
- Fast warm-up and response
- Long-life catalytic combustibles sensor
- Long-life electrochemical O₂ & CO sensors
- Digital readout meters with backlight
- Rechargeable battery operation
- Built-in sample pump, filter and flow meter
- Includes stainless steel probe with sample hose
- Use on flue gas from any fuel
- Pays for itself in months through fuel savings
- Weatherproof cabinet is standard

OPTIONS

- Recorder output of 0-1V or 4-20 mA
- Stack temperature readout (Model 352T)
- Sample pre-cooler
- Suitcase (K) style cabinet available
- Detachable/portable data logger

CALIBRATION

- On air for O₂ span and CO & combustibles zero.
- On analyzed mixture of carbon monoxide (CO) and methane (CH₄) in nitrogen for combustibles and CO span and O₂ zero.



Weatherproof (WP) Enclosure



Suitcase (K) Enclosure



Optional
Ice Bath
Pre-cooler

NOVA ANALYTICAL SYSTEMS

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DESCRIPTION

The Nova 352 Series Portable Flue Gas Analyzer has been designed for accuracy, reliability, ease of use and ease of service. It uses customer replaceable sensors which respond quickly to the oxygen (O₂), carbon monoxide (CO), and combustibles present in the flue gas sample. The sensor life expectancy is between 3 and 4 years.

In operation, a built-in sample pump draws in the flue gas sample through the stainless steel probe, 12 ft. (4 m) sample hose, condensate removal filter, secondary filter, PTFE liquid blocker, flowmeter, then on to the O₂, CO, and combustibles sensors. The detected gases are displayed on LCD digital meters which have a switchable backlight for use in dark areas. A built-in air makeup system ensures that the combustibles detector will always have sufficient O₂ for proper operation regardless of sample O₂ content.

A rechargeable battery provides enough power for about 6 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.

The Nova 352T version indicates stack temperature for doing fuel efficiency calculations. The temperature sensor is built into the sampling probe. Efficiency charts for each fuel are provided.

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 sensors Catalytic oxidation detector for combustibles; expected life is 3-4 years for each
Ranges Available:	0-25.0% O ₂ 0-2000 PPM and 0-4.00% CO (switch selectable) 0-5.0% or 0-10.0% combustibles 0-1800°F or 0-1000°C stack temperature (Model 352T)
Resolution:	0.1%
Accuracy and Repeatability:	± 1% full scale, based on 20.9% O ₂ ; ± 2% of full scale combustibles
Drift:	<2% of full scale per 8 hours of continuous operation
Response Time:	5-8 seconds for O ₂ ; 20-30 seconds for combustibles
Ambient Temperature Range:	32° to 105°F (0° - 40.5°C)
Linearity:	± 1% full scale O ₂ & CO; ± 2% of full scale combustibles
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:	4-20 mA or 0-1 VDC

UNIQUE APPLICATIONS

The 352 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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