

NOVA

Dependable Gas Analysis Solutions

309 SERIES

PORTABLE FLUE GAS ANALYZER FOR CARBON DIOXIDE & OXYGEN



APPLICATIONS

Analysis of oxygen (O₂) and carbon dioxide (CO₂). For checking combustion efficiency, and burner & control performance of furnaces, heaters and boilers in commercial, industrial, and residential applications.

FEATURES

- Solid state infrared detector for CO₂
- Long-life electrochemical sensor for O₂
- Rugged design that is easy to operate and maintain
- Fast warm-up and response
- Digital readout meter with backlight
- Continuous condensate removal
- Rechargeable battery operation
- Stainless steel probe with sample hose
- Built-in sample pump, filter, and flowmeter

OPTIONS

- 4-20mA recorder output
- Sample pre-cooler for hot samples
- Special sampling probes
- Stack temperature readout (309T)
- Built-in data-logging to USB stick

CALIBRATION

- Air for CO₂ zero and O₂ span.
- Analyzed calibration gas for CO₂ span and O₂ zero.



309K series with
optional printer

Optional
Ice Bath
Precooler



NOVA ANALYTICAL SYSTEMS

www.nova-gas.com

DESCRIPTION

The Nova 309 Series Portable Flue Gas Analyzers have been designed for accuracy, reliability, and ease of use and service. The 309 uses a long life electrochemical O₂ sensor and a solid state infra red CO₂ detector, both of which respond quickly to O₂ and CO₂ present in the flue gas sample.

In operation, a built-in sample pump draws in the flue gas sample through the S.S. probe, 3m / 12 ft sample hose, condensate removal filter, secondary filter and flow meter then on to the O₂ sensor and CO₂ detector. The detected gases are displayed on a touch-screen display.

The 309 can optionally indicate stack temperature (Model 309-T; 0-1800F or 0-1000C) for doing fuel efficiency calculations. The temperature sensor is built into the sampling probe. Efficiency charts for each fuel are provided.

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 309K 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.

SPECIFICATIONS

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

Description	
Method of Detection:	NDIR infrared detector for CO ₂ ; long life electrochemical O ₂ sensor
Ranges Available:	0-20.0% CO ₂ ; 0-25.0% O ₂ (other ranges available)
Resolution:	0.1% CO ₂ ; 0.1% O ₂
Accuracy and Repeatability:	Within ± 2% full scale
Drift:	Within 1% full scale per 8 hours of continuous operation
Response Time (T-90):	O ₂ less than 10 seconds; CO ₂ less than 30-40 seconds to T-90
Ambient Temperature Range:	32° to 122°F (0 to 50°C)
Linearity:	±1% of full scale for each gas measured
Size and Weight:	approx. 26 x 18 x 13 cm @ 3.4 kg (10" x 7" x 5" @ 7.5lbs)
Power:	12V battery operation. 115VAC 60Hz for recharging (220VAC 50Hz available)
Output Options:	CSV log files written to USB memory stick

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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