



Dependable Gas Analysis Solutions

309A SERIES

PORTABLE ANALYZER FOR CARBON DIOXIDE & OXYGEN



APPLICATIONS

For checking carbon dioxide (CO₂) and oxygen (O₂) in controlled atmosphere (C/A) storage rooms, welding gas mixtures, and other process applications.

FEATURES

- Rugged design that is easy to operate and maintain
- Fast warm-up and response
- Solid state infrared detector for CO₂
- Long-life electrochemical sensor for O₂
- Digital readout meter with backlight
- Rechargeable battery operation
- Built-in sample pump, filter, and flow meter
- Suitcase (K) cabinet, weatherproof when closed

OPTIONS

- Recorder output, 4-20mA
- Sample pre-cooler for very moist samples
- Stainless steel probe with sample hose
- Built-in data-logging to USB stick

CALIBRATION

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



309A series with
optional printer



Optional
Ice Bath
Precooler

NOVA ANALYTICAL SYSTEMS

www.nova-gas.com

DESCRIPTION

The Model 309A Series Portable CO₂ and O₂ Analyzer is a rugged, fast-responding, and accurate instrument for conveniently monitoring the controlled atmospheres in food storage rooms. The standard range of the analyzer is 0-10% CO₂ and 0-25% O₂. The Model 309A series utilizes a single cell infrared detector for CO₂ and a customer-replaceable electrochemical sensor for O₂. Neither sensor is affected by water vapor or other gas vapors in the sample gas. The O₂ sensor typically lasts 3-4 years. The CO₂ detector is not consumed during use.

In operation, a built-in sample pump draws in the gas sample through the sample hose, filters, and flow meter, then on to the CO₂ and O₂ detectors. You can walk around with the instrument or run tubing to it from the C/A room. The gas readings are displayed on a bright touch-screen display.

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.

Method of Detection:	NDIR infrared detector for CO ₂ ; electrochemical O ₂ sensor
Ranges Available:	0-10% CO ₂ 0-25% O ₂
Resolution:	0.1 %
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:	40° to 120°F (4° to 49°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.



NOVA ANALYTICAL SYSTEMS
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