

NOVA

Dependable Gas Analysis Solutions



302 Series PORTABLE FLUE GAS CARBON DIOXIDE ANALYZER

APPLICATIONS

Analysis of carbon dioxide (CO₂). For checking combustion efficiency, and burner & control performance of furnaces, heaters and boilers. May be used in commercial, industrial and residential settings.

FEATURES

- Solid state infrared detector
- Rugged design that is easy to operate
- Fast warm-up and response
- Digital readout meter with backlight
- Modular layout that is easy to maintain
- Rechargeable battery operation
- Built-in sample pump, filter, and flowmeter
- Continuous condensate removal
- Weatherproof (WP) cabinet with clear Lexan cover
- Stainless steel probe with sample hose

OPTIONS

- Recorder outputs of 0-1V or 4-20 mA
- Stack temperature readout (302-T)
- Special sampling probes
- Sample pre-cooler
- Suitcase (K) style cabinet available
- AC power only operation
- CO₂ alarm with LED
- Detachable/portable data logger

CALIBRATION

- Air for zero
- Analyzed CO₂ cal gas for span.



Weatherproof (WP) Enclosure



Suitcase (K) Enclosure



Optional Pre-cooler
for hot or wet
sample gases

NOVA ANALYTICAL SYSTEMS

www.nova-gas.com

DESCRIPTION

The Nova 302 Series Portable Flue Gas Analyzers have been designed for accuracy, reliability, and ease of use and service. The 302 uses a solid state infra red detector which responds quickly to 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, 12 ft sample hose, condensate removal filter, secondary filter and flow meter then on to the CO₂ detector. The detected CO₂ is displayed on an LCD digital meter which has a switchable backlight for use in dark areas.

The 302 can optionally indicate net stack temperature (302-T) for doing fuel efficiency calculations. The temperature sensor is built into the sampling probe. Efficiency charts for each fuel are provided.

A rechargeable 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. The recharger is included.

SPECIFICATIONS

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

Description	
Method of Detection:	Microprocessor based infrared detector for CO ₂
Ranges Available:	0 - 20.0% CO ₂ (other ranges available)
Resolution:	0.1% CO ₂
Accuracy and Repeatability:	Within ± 2% full scale
Drift:	Less than 1% full scale per 8 hours of continuous operation
Response Time (T-90):	30 - 40 seconds
Ambient Temperature Range:	32° to 105°F (0° to 40°C)
Linearity:	Better than 1.0% of full scale
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
Alarms:	High or low CO ₂ alarm with LED (optional)

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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