



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 CO₂ detector
- Rugged design, easy to operate, fast response
- Digital readout meter with backlight
- Rechargeable battery operation
- Built-in sample pump, filter and flowmeter
- Condensate removal bowl & pump
- Stainless steel probe with sample hose

OPTIONS

- Durable suitcase-style cabinet that is weather-proof when closed (K); display inside of cabinet
- Suitcase style cabinet with display moved to exterior (KX)
- Stack temperature readout (Model 350T)
- 4-20mA recorder output
- Sample pre-cooler
- Data logging

CALIBRATION

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



350K - standard suitcase enclosure (K)



350KX - suitcase enclosure with external display (KX)



Optional
Ice Bath
Precooler

NOVA ANALYTICAL SYSTEMS

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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 a local digital meter.

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 6 hours of continuous operation and the analyzer can be used while it is being recharged. 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 Optional stack temperature (Model 302T) using TypeK thermocouple in probe
Ranges Available:	0 - 20.0% CO ₂ (other ranges available) 0-1800°F or 0-1000°C stack temperature
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:	Approx. 35.5L x 15.2H x 26.6D cm @ 5.5 kg (14" x 6" x 10½" @ 8 lbs)
Power:	AC/DC operation. 115VAC 60Hz for recharging (other voltages available)
Output Options:	4-20mA
Alarms:	High or low CO ₂ alarm with display indication (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.



NOVA ANALYTICAL SYSTEMS
(A UNIT OF TENOVA GOODFELLOW INC.)

IN USA:
1925 Pine Avenue • Niagara Falls, NY • 14301
Tel: 1-800-295-3771 • 716.285.0418 • Fax: 716.282.2937
IN CANADA:
270 Sherman Avenue North • Hamilton, ON • L8L 6N5
Tel: 905.545.2003 • Fax: 905.545.4248
email: sales@nova-gas.com
websales@nova-gas.com



www.nova-gas.com