

NOVA

Dependable Gas Analysis Solutions



7200 SERIES CONTINUOUS FLUE GAS ANALYZERS

APPLICATIONS

Continuous analysis of flue gas for any combination and range of O₂, CO, CO₂, SO₂, NO_x (as NO or NO + NO₂) or combustibles from combustion processes.

FEATURES

- Best value continuous flue gas analyzer
- Sensitive infrared detectors for % and > 1000 PPM CO, CO₂, or SO₂
- Long life electrochemical sensor for 10 - 1000 PPM CO, NO, NO₂, and SO₂
- Catalytic sensor for % combustibles
- Fast response time and bright digital readout for each gas
- Microprocessor based with push button or potentiometer calibration
- Easy to maintain modular layout
- Sample preparation includes filtration and continuous moisture removal
- 4-20 mA outputs for each gas measured
- Sensors are temperature controlled for maximum stability

OPTIONS

- Hi/Low gas, low flow, high vacuum, and diagnostic alarms available
- Isolated analog 4-20mA outputs available
- Cabinet purge system available for use in hazardous or high dust areas
- Auto-calibration with touch screen LCD display
- Ambient temperature package for operation in -20°C up to 55°C (-4°F to < 131°F)
- Stack-mounted heated filters and high temperature probes
- Large free-standing cabinets with latching doors

- **Optional sample conditioning features include:**

- 1) Continuous water prewash system for acidic flue gases that are present but not to be analyzed (See Model 7300)
- 2) Heated stack filter for removal of dust from high particulate samples (Model 7240), automatic blowback available
- 3) Calibration gas injected at heated stack filter
- 4) Multiple sample point sequencer which allows multiple samples to be selected and analyzed (see Model 402AS)



NOVA ANALYTICAL SYSTEMS

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DESCRIPTION

The Nova Model 7200 Series Flue Gas Analyzers are specifically designed for use on the flue gases from combustion processes burning gaseous fuels. These analyzers can measure sample gases for oil or coal-fired processes with the addition of a Model 7240 heated sample filter. The 7200 Series can also measure flue gases in the presence of acidic or corrosive samples through the use of sample pre-conditioners.

Sample gas is drawn into the analyzer from the sampling probe, heated filter, or sample pre-conditioner, then pumped through a condensate removal system. Next, the dried sample gas is filtered again then flows through a pressure regulator, PTFE liquid block, calibration gas valves, low flow switch, flow meter, then on to the gas detectors. An optional vacuum switch at the pump inlet warns if the pre-filter is becoming plugged. The readings are clearly displayed and also sent to separate 4-20mA recorder outputs for each gas.

SPECIFICATIONS

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

Description		
Method of Detection:	% O ₂ , 10-1000 PPM NO, NO ₂ , CO, & SO ₂ by long-life electrochemical sensor CO ₂ , >1000 PPM & % CO & SO ₂ by infrared detector Combustibles by catalytic combustibles detector with available air 'make-up' system	
Ranges Available: <small>(Ranges to be specified by customer. Other ranges may also be available.)</small>	0-5 to 0-25% O ₂ 0-20% CO ₂ 0-100 PPM to 0-5% SO ₂ 0-100 PPM to 0-100 % CO	0-100 to 0-2,000 PPM NO 0-100 to 0-800 PPM NO ₂ 0-2, 0-5, 0-10% Combustibles
Resolution:	0.1 % on % ranges, 1 PPM on PPM ranges	
Accuracy and Repeatability:	±1-2% of full scale - depending on gas measured and ranges	
Drift:	Less than 2% of full scale per month	
Response Time (T-90):	20-30 seconds to 90% of step change	
Ambient Temperature Range:	32-122°F (0-50°C) @ 5-95% RH non-condensing. Lower temperatures (-5°F, -20°C) with Cold Weather Package.	
Linearity:	±1% of full scale	
Size and Weight:	Dimensions and weight will vary with configurations selected (consult Nova)	
Power:	115VAC 60Hz (220VAC 50Hz available)	
Output Options:	4-20 mA into 500 ohms non-isolated standard Isolated 4-20 mA, RS-232 outputs optional	
Alarms:	High or low alarm contacts available for all gases, low flow and high vacuum	

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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