

NOVA

Dependable Gas Analysis Solutions

MODELS 975PK & 2000K PORTABLE SYNGAS & GASIFICATION ANALYZERS PORTABLE SAMPLE COOLERS & CONDITIONERS



APPLICATIONS

For extracting, cooling, and measuring syngas / gasification atmospheres or other industrial process gases in any combination of carbon monoxide (CO), carbon dioxide (CO₂), methane (HC's as CH₄), hydrogen (H₂), and oxygen (O₂).

FEATURES

- Field cleanable infrared detector for reliable measurement of CO, CO₂, and CH₄
- Long-life thermal conductivity cell for H₂
- Long-life electrochemical O₂ sensor
- H₂ reading compensated for CO, CO₂, and CH₄
- LCD displays with gas readouts
- Upgraded chemical-resistant wetted sample train
- Stainless steel internal fittings (where prudent)
- Built-in sample pump, flow meter, and filters
- Internal battery for portable operation
- Rugged suitcase (K) style cabinet
- 2000K portable cooler used in series before 975PK to condense moisture out of sample gas

CALIBRATION

- Air for Zero and O₂ Span.
- Analyzed calibration gas mixture to span all readings except O₂



NOVA ANALYTICAL SYSTEMS

www.nova-gas.com

DESCRIPTION

The Nova **Model 975PK** syngas analyzer utilizes a durable field-cleanable three channel high-stability infrared detector for the simultaneous measurement of CO, CO₂, and CH₄ in challenging applications such as syngas and gasification atmospheres. In addition, the analyzer is supplied with a fully compensated thermal conductivity cell for H₂. Electrochemical O₂ sensor measures percent levels of oxygen in the sample gas stream. Recorder outputs (4-20mA non-isolated) are included. The 975PK series analyzers are complete with integral sampling pump, rechargeable battery, filters, flow meter, and sampling hose.

The Nova **Model 2000K** sample cooler used a thermoelectric chiller to rapidly reduce the temperature of the sample gas. This condenses unwanted moisture out of the sample gas before introducing it to the gas analyzer. The cooler is intended to be used with a hand-held probe that extracts and filters the sample gas.

SPECIFICATIONS

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

Description

Gases Measured: CO, CO₂, CH₄ by infrared detector; O₂ by electrochemical sensor
H₂ by thermalconductivity detector

Ranges Available:	0 - 2.0 %, 0 - 25.0 %, 0 - 50.0 % O ₂	Optional: 0 - 100.0 % O ₂
	0 - 2.0 %, 0 - 50.0 % CO	0 - 100.0 % CO
	0 - 2.0 %, 0 - 50.0 % CO ₂	0 - 100.0 % CO ₂
	0 - 2.0 %, 0 - 50.0 % HC's as CH ₄	0 - 100.0 % HC's as CH ₄
	0 - 2.0 %, 0 - 50.0 % H ₂	0 - 100.0 % H ₂

Resolution: 0.1% on all gases

Accuracy and Repeatability: ±1.0-1.5% of full scale, depending on gas measured and range purchased

Drift: Less than 1% of full scale in 8 hours

Response Time (T-90): Approximately 20-30 seconds to 90% step range

Ambient Temperature Range: 32° to 122°F (0 to 50°C)

Linearity: ±1% of full scale for each gas measured

Size and Weight: approx. 15" W x 7" H x 12" D @ 20 lbs. (375 x 175 x 305 mm @ 6.8 kg)
(975PK and 2000K approx. same size & weight)

Power: 115 VAC 60Hz (220 VAC 50Hz available)

Output Options: 4-20 mA for each gas measured. (2000K cooler has visible display of temperature)

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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