

NOVA

Dependable Gas Analysis Solutions

970P SERIES

PORTABLE SYNGAS & GASIFICATION ANALYZERS



APPLICATIONS

For monitoring syngas and gasification atmospheres or other industrial process gases in any combination of carbon monoxide (CO), carbon dioxide (CO₂), methane (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 bench top (BT) style cabinet

OPTIONS

- Recorder outputs of 0-1V or 4-20 mA
- Condensate removal for wet sample gas applications
- Methane-specific detector in place of standard hydrocarbons detector; allows more accurate CH₄ analysis in other HC's
- Sensors temperature-controlled for maximum stability (AC powered versions only)
- High range analysis available up to 0-100% on all channels



CALIBRATION

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

NOVA ANALYTICAL SYSTEMS

www.nova-gas.com

*Above pictures left to right:
Chanderpur Works Pvt. Ltd.; SVZ Schwarz Pumpe Plant;
Shanghai Yongxian Machinery Manufacturing Co., Ltd.;
Chongqing Fengyu Electric Equipment Co., Ltd.*

DESCRIPTION

The Nova 970P Series Syngas analyzers utilize 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 can be supplied with a fully compensated thermal conductivity cell for H₂. Electrochemical O₂ sensor can also be supplied for measuring percent levels of oxygen in the sample gas stream. Recorder outputs are optional. The customer may choose any combination of gases to be measured.

The 970P series analyzers are complete with integral sampling pump, rechargeable battery (when feasible), filters, flow meter, and sampling hose.

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 % CH ₄	0 - 100.0 % CH ₄
	0 - 2.0 %, 0 - 50.0 % H ₂	0 - 100.0 % H ₂

Resolution: 0.1% on % gases; 0.01% on low range CO, CO₂, & CH₄

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

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: 10" H x 10" W x 14" D (25 x 25 x 35 cm) @ approx. 20 lbs (9 kg)
Actual size may vary depending on model and options selected

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

Output Options: 4-20 mA for each gas measured. 0-1 VDC or serial output also available

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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