Item # 975A, Continuous Analyzer for Syn-Gas Atmospheres - O_2, CO, CO_2, CH_4 and H_2

Continuous Analyzer for Syn-Gas Atmospheres - O_2, CO, CO_2, CH_4 and H_2

The Nova 970 Series Syn-Gas Analyzer System has been designed with the flexibility and robustness required in the experimental and developmental environments that characterize syn gas applications.
The Nova 970 Series utilizes high-stability infrared detectors for the simultaneous measurement of CO, CO_2, and CH_4. In addition, the analyzer can also be supplied with a non-consumable, long-life thermal conductivity cell for H_2 that compensates for the interference effects of CO, CO_2, and CH_4. This ensures that H_2 will always read correctly regardless of the background gas composition. A non-depleting paramagnetic sensor is used for O_2 analysis. All sensors/detectors are temperature-controlled or temperature-compensated for maximum analytical stability. Auto calibration functionality allows easy calibration without user intervention. The included Serial Output Package allows connection of analyzer to personal computers via a choice of USB/RS-232/RS-485. Data recording software is also included.

· SPECIFICATIONS · APPLICATIONS · FEATURES · OPTIONS · CALIBRATION

SPECIFICATIONS

Method of Detection	NDIR infrared detector for CO, CO_2 and CH_4 Paramagnetic sensor for O_2 Thermal conductivity cell for H_2
Ranges Available	0-10.0%, 0-50.0%, 0-100.0% CO 0-10.0%, 0-50.0%, 0-100.0% CO_2 0-2.0%, 0-25.0%, 0-50.0%, 0-100.0% O_2 0-5.0%, 0-50.0%, 0-100.0% H_2 0-50.0%, 0-100.0% CH_4
Resolution	0.1% for all gases
Accuracy &Repeatability	± 1.5% of full scale on all gases
Drift	Less than 2% of full scale per month
Response Time (T-90)	20-30 seconds to 90% step change
Ambient Temperature Range	40-104 °F (4 to 40°C). Optional -22 to 158 °F (-30 to 70 °C) with Outdoor Packages
Linearity	± 1.5% of full scale
Size &Weight	24" H x 24" W x 10" D @ 90 lbs (61 x 61 x 25 cm @ 20 kg)
Power	115 VAC 60 Hz (220 VAC 50 Hz available)
Output Options	Isolated 4-20 mA standard RS232, RS485, MODBUS®, Ethernet outputs optional
Alarms	High and/or low alarm contacts available, relay contacts SPDT 5A @ 220 VAC rating.

APPLICATIONS

For continuous monitoring of syngas and gasification atmospheres or other industrial process gases for any combination of methane (CH_4), carbon dioxide (CO_2), carbon monoxide (CO) and hydrogen (H_2) and oxygen (O_2).

FEATURES

- Infrared detector for reliable measurement of CO, CO_2 and CH_4. Detector may be cleaned in the field.
- Thermal conductivity cell for H_2
- Oxygen analysis by choise of electrochemical or paramagnetic oxygen sensor
- Sensors/detectors temperature controlled or compensated for maximum analytical stability
- H_2 reading is compensated for the interference effects of the other gases measured
- High ranges on each channel available (up to 100%)
- Touch-screen display for gas readings
- Built-in sample pump or pressure regulator
- Automatic calibration &serial output package
- Isolated 4-20 mA analog recorder outputs
- Durable stainless steel lines &sample components (where prudent)
- Automatic moisture removal system included

OPTIONS

- Calculations performed on gas readings such as gas ratios and heating value of flammable gases
- Hi/Low gas, low flow and other alarms available
- Sample conditioning systems available for acidic gas and dust
- Cabinet purge system available for use in hazardous areas
- Outdoor packages available for operation from -22 to 158 °F (-30 to 70 °C)
- Cabinet coolers can be fitted to most models
- Heated filters and high temperature probes
- Methane-specific detector in place of standard hydrocarbons detector; allows more accurate CH_4 analysis in other HC's

CALIBRATION

- Ambient air for O_2 and to zero all other gases
- Analyzed calibration gas with representative concentrations for span of all other gases