NOVA

Dependable Gas Analysis Solutions

910 SERIES

CONTINUOUS ANALYZERS FOR LANDFILL GAS RECOVERY & PROCESSING

Models A & C

APPLICATIONS

For continuous analysis of oxygen (O_2), methane (CH_4), and/or carbon dioxide (CO_2) in recovered gases from landfill sites.

A - BASE MODEL

- Easy to use manual potentiometer calibration with LCD digital displays for each gas
- Temperature controlled sensors for maximum stability
- Long life electrochemical O_2 sensor
- Infrared detector for reliable measurement of CH_4 & CO_2; detector may be cleaned in the field
- Stainless steel hard tubing and corrosion-resistant components for internal sample path
- Cabinet positive-pressure system to minimize the corrosive effects of hydrogen sulfide (H_2S) on cabinet electronics & sensors
- Built-in sample pump, pre-filter, filters, and flow meter
- Automatic moisture removal without the use of cooling water, compressed air or failure-prone thermal-electric elements
- Back pressure regulator to allow user to measure and minimize vacuum effects if the sample is vented back to blower
- Rugged NEMA4 (IP65) enclosure
- Isolated 4 - 20 mA output for each gas

913C (O_2, CH_4, & CO_2 analysis with Full Autocalibration)

C - AUTOCALIBRATION MODEL

- Same features as Base model, plus:
- Automatic analyzer calibration with full-color touch screen LCD display
- 'Cal-Now' feature initiates full calibration with a single swipe of magnetic wand

CALIBRATION

- Ambient air for O_2 span and CO_2 & CH_4 zero
- Analyzed calibration gas of CO_2 and CH_4 in nitrogen for CO_2 & CH_4 span and O_2 zero

OPTIONS

- Gas hi/low alarms with relay contacts
- RS232, RS485, MODBUS®, and Ethernet outputs (available on Model C only)
- Class 1 Division 2 Group BCD rated purge kit for use in hazardous areas
- Outdoor weather packages for operation from -30°C (-22°F) up to 55°C (131°F)
- O_2 measurement by paramagnetic detector
- In-cabinet LEL monitor to interrupt analyzer power in the event of an internal gas leak

NOVA ANALYTICAL SYSTEMS

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DESCRIPTION

The Nova 910 Series analyzers have been designed for monitoring recovered and processed gases from landfill sites. This equipment continuously removes moisture from the wet sample gas without the need for cooling water, compressed air, or failure-prone thermoelectric elements. The 910 Series comes complete with pre-filter, sample pump, flow meter, continuous moisture removal system, long-life O_2 sensor, infrared CO_2/CH_4 detector, low flow sensor, alarm relay contacts, and 4-20mA outputs for each gas measured. Sensors / detectors are mounted in an internal dedicated enclosure which is heated and temperature controlled to reduce drift due to ambient temperature swings. The internal sensor enclosure is removable to allow quick field change of sensors. The infrared detector can be cleaned in the field if necessary by the on-site technician. Environmental management packages are available to allow operation of analyzer outdoors in temperatures from -30°C (-22°F) up to 55°C (131°F).

On the C-Models with Autocalibration, all calibration functions are controlled through the display rather than through manual potentiometers. The operator only has to input the calibration frequency and leave calibration gas cylinder connected to the analyzer - the rest is automatic. Diagnostics and troubleshooting information are also included in the display interface of the C model. This assists operators to quickly determine the cause of an alarm and get the analyzer back on line.

MODELS

- 910 (A or C) - O_2
- 911 (A or C) - CH_4
- 912 (A or C) - O_2 and CH_4
- 913 (A or C) - O_2, CH_4, and CO_2
- 914 (A or C) - CH_4, and CO_2
- also available - BTU readout, range 0-1000 BTU

SPECIFICATIONS

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

Description	
Method of Detection:	O_2 by electrochemical sensor, CH_4 & CO_2 by infrared detector
Ranges Available:	0-25.0% O_2; any range between 0-50.0% to 0-100.0% CH_4, CO_2; optional: 0-1000 BTU
Resolution:	0.1% on CO_2, O_2, & CH_4, 1 BTU
Accuracy and Repeatability:	±1% of full scale
Drift:	Less than 2% of full scale per month
Response Time (T-90):	Less than 30 seconds not including sample line delay
Ambient Temperature Range:	40 to 104°F (4 to 40°C). Option: -30°C to 55°C (-22°F to 131°F) with Outdoor Pkg.
Linearity:	±1% of full scale for each gas measured
Size and Weight:	Approx. 24" H x 24" W x 10" D @ 90 lbs (61 x 61 x 25 cm @ 20 kg) Physical data may vary depending on options required
Power:	115VAC 60Hz (220VAC 50Hz available)
Output Options:	Isolated 4-20mA standard; RS232, RS485, MODBUS®, Ethernet outputs optional
Alarms:	Optional: High O_2, high CO_2, low CH_4, low flow; SPDT relays with 10A contacts

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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