# Series 9000NMHC Analyzer

## Accurate and Reliable Methane / Non-Methane Hydrocarbon Analysis over a Broad Range of Concentrations

### Continuous Monitoring of Methane and Non-Methane Hydrocarbons in Non-Condensing Gases

### **Applications**

- Ambient Air Monitoring Networks
- Clean Rooms
- Air & Oxygen Purity in Air Separation Plants

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### **Continuous and Fully Automated Gas Analysis**

### **Features & Benefits**

- Hydrocarbon Detection from sub-ppm to 1000 ppm (Methane)
- Flame Ionization Detector
- Graphical Display with Easy to use Menu System
- Sleek Rack Mountable Profile
- Internal, Multipoint Sampling Option
- Automatic Calibration at User-Defined Intervals
- FlowGuard Electronic Control of Fuel, Air and Sample
- Electronic Back-Pressure Regulator with Sample Bypass System
- Discrete, multilevel concentration & fault alarms
- Programmable Analog Output Ranges
- Programmable Relays for Concentration, Alarms, Events and Diagnostics
- Automatic FID (Flame Ionization Detector) Ignition
- Automatic Shut-off of Sample, Fuel and Combustion Air
- Remote Operation via RS-232 and Ethernet
- Optional: 9000 Keeper Software allows for Remote Monitoring and Control

As part of the Baseline<sup>®</sup> Series 9000 Hydrocarbon Analyzer family, the 9000 NMHC is designed to measure the total hydrocarbons, methane and non-methane hydrocarbon content in gas samples. Output options include analog, digital and logic capabilities.

The detector used is a FID (Flame lonization Detector) and an oxidation catalyst that is switched in and out of a portion of the sample stream. The catalyst oxidizes all hydrocarbons except methane, for a methane measurement. The methane value is then automatically subtracted from the total hydrocarbon concentration to determine the non-methane hydrocarbon reading.

The Series 9000 NMHC can be configured with internal components for single or multipoint analysis of non-condensing gas samples. The automatic calibration feature enhances the long-term analytical stability of the instrument. These features place the instrument well ahead of the competition in performance, automation and configurability.



Detector	(FID) Flame Ionization Detector		
Oxidizer	Oxidizes NonMethane Hydrocarbons		
Ranges	User definable based upon calibration within;		
	MDQ 0.06 ppm, Full-scale 1 - 200 ppm (Air Balance)		
	MDQ 0.1 ppm, Full-scale 1 - 1,000 ppm (Air Balance)		
	MDQ 0.03 ppm, Full-scale 1-200 ppm (0 <sub>2</sub> Balance)		
Repeatability	+/- 1% Full-scale response		
Drift	+/- 1% of full-scale over 24 hours		
Response Time	< 30 seconds to 90% of final reading		
Alarms	Multilevel concentration and fault alarms that result in audible and visual alarms		
	Alarms may also be mapped to relays to control external equipment		
Sampling	Internal single module for pre-filtered (<0.1 microns) non-condensing samples, with or without sample pump		
Calibration	Programmable automatic or manual calibration		
Support Gas	Hydrogen 35 cc/min (H <sub>2</sub> He Blend 100 cc/min) Air 175 cc/min (typical)		
	Hydrocarbon content must be less than 1 ppm		
	Fuel blend options available, consult Baseline		
Power	90 – 230 VAC, 50/60Hz, 3A		
Relay Outputs	5 programmable form A relays rated to 3A @ 230V AC (optional additional 9 relay output board)		
Analog Outputs	1 programmable 0-20mA or 4-20mA isolated output (optional additional 3 analog output board)		
Digital Outputs	RS-232, Ethernet		



### **Physical Characteristics**

Dimensions	3u, 19.00" (48.3cm) W x 14.25" (36.2cm) D x 5.25" (13.3cm) H	Weight	< 20 lb (9.07 kg)
Configuration	Bench-top or rack-mount 19" (48.3cm) panel	Operating Temperature	32 - 104 °F (0 - 40 °C)
Connections	1/4" (6.35mm) tube fitting connectors	Operating Humidity	0 – 95% (non-condensing)



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