

# SERIES 9000 H HEATED HYDROCARBON ANALYZER



*Accurate and reliable high temperature hydrocarbon analysis over a broad range of concentrations*

## Continuous monitoring of total hydrocarbon content while maintaining the temperature of a heated sample above dewpoint

The Series 9000 H Heated Hydrocarbon Analyzer is a microprocessor-based instrument designed for continuous ambient or process hydrocarbon gas measurement in environmental or industrial settings. The analyzer is configured for single point analysis (with or without a sample pump) of samples heated up to 376 °F (191 °C) for pre-filtered (< 0.1 microns) non-condensing samples.

Detection limits down to < 0.1 ppm. User-programmable ranges from 10 ppm to 10% (propane) or 10 ppm to 50% (methane) are factory-configured per the customer's application to facilitate installation and setup.

Using a Flame Ionization Detector (FID), AMETEK MOCON - Baseline's FlowGuard electronic control regulates the delivery of fuel, air, and a small part of the sample gas, to the FID. During the combustion process, organic or hydrocarbon-based gases in the sample are ionized, detected by the instrument, and then reported as a concentration. The automatic calibration feature enhances the long-term analytical stability of the instrument.

All instrument parameters are reported clearly and continually refreshed on a large, graphical LCD display. Using analog, digital, and logic output communication capabilities, analytical information from the analyzer can be acquired using an external PC and a simple communications program such as Windows® HyperTerminal or the analyzer can output binary or ASCII formats directly to a data acquisition system or PLC. Every Series 9000 H analyzer includes AMETEK MOCON - Baseline's free PC utility *9000 Keeper* used for storing and uploading multiple methods, as well as sending configuration settings, directly to the analyzer.

**mocon**<sup>®</sup>  
BASELINE

**AMETEK**<sup>®</sup>  
PROCESS & ANALYTICAL INSTRUMENTS

## Applications

- Compliance monitoring for EPA Methods 25A & 503
- Continuous Emission Monitoring (CEM) of source hydrocarbons
- Scrubber & oxidizer efficiency
- Carbon bed break through detection
- Industrial hygiene & safety monitoring
- Chemical process blending
- LEL Monitoring
- Vehicle emissions

## Features & Benefits

- Flame Ionization Detector (FID)
- Hydrocarbon detection from sub-ppm to 50% levels (methane)
- Graphical LED display with easy to use menu system
- Sleek rack mountable profile
- 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 diagnostics, concentration, alarms, and events
- Automatic FID ignition
- Automatic shut-off of sample, fuel and combustion air
- Remote operation via RS-232 and Ethernet

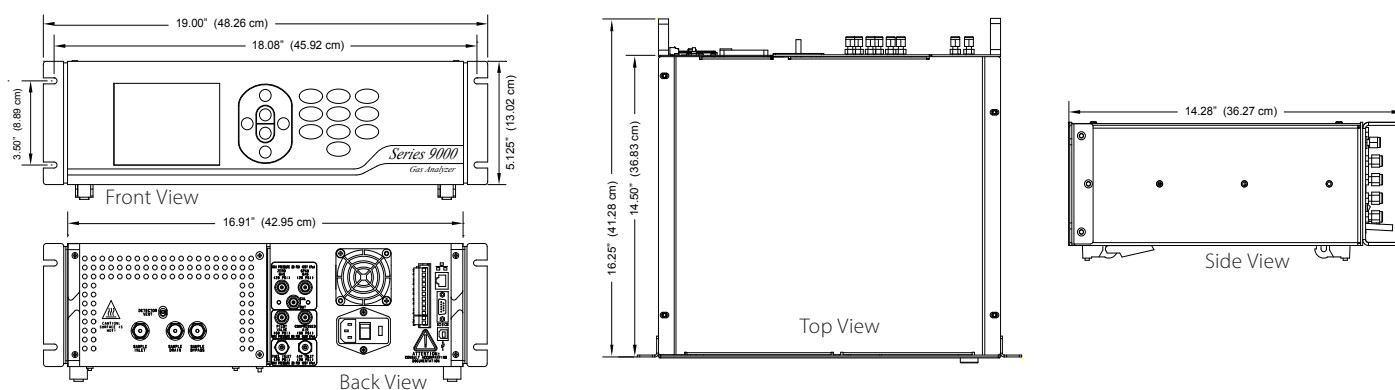
These features place the instrument well ahead of the competition in performance, automation and configurability.

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DATA SHEET

## Specifications

<b>Detector</b>	Flame Ionization (FID)		
<b>Sample Temperature</b>	Up to 376 °F (191 °C)		
<b>Ranges</b>	User definable based upon calibration within: <ul style="list-style-type: none"> <li>0.15 ppm to 200 ppm (methane, CH<sub>4</sub>) Accuracy ± 1%, full-scale</li> <li>0.30 ppm to 2,000 ppm (methane, CH<sub>4</sub>) Accuracy ± 1%, full-scale</li> <li>0.60 ppm to 20,000 ppm (methane, CH<sub>4</sub>) Accuracy ± 1%, full-scale</li> <li>0.003% to 50% (methane, CH<sub>4</sub>) Accuracy ± 1%, full-scale</li> </ul> Analyzer range is configured at the factory.		
<b>Repeatability</b>	± 1% full-scale response		
<b>Drift, Zero</b>	± 0.025% of full-scale over 24 hours		
<b>Drift, Span</b>	+/- 1% of full-scale over 24 hours		
<b>Response Time</b>	T90 < 5 seconds		
<b>Sampling</b>	Internal single point module for pre-filtered (< 10 microns) non-condensing samples, with or without sample pump		
<b>Alarms</b>	Multilevel concentration and fault alarms that result in an audible and visually displayed alarm. Alarms may also be mapped to relays to control external equipment		
<b>Calibration</b>	Programmable automatic or manual calibration		
<b>Support Gases</b>	Hydrogen (H <sub>2</sub> ) — 30 cc/min. Hydrocarbon content must be < 1 ppm. Air — 175 cc/min (typical) Fuel blend options available, consult MOCON - Baseline		
<b>Display</b>	Graphical LCD display, 3.4" x 4.5" (8.64 x 11.43 cm)		
<b>Outputs</b>	<b>Digital</b> RS-232 LAN	<b>Analog</b> 1 programmable 0–20 mA or 4–20 mA isolated output	<b>Relay</b> 5 programmable Form A relays rated to 3 A @ 230 V AC
<b>Operating Temperature</b>	32 to 104 °F (0 to 40 °C)		<b>Connections</b> 1/4" (6.35 mm) tube fitting connectors
<b>Operating Humidity</b>	0 to 95% (non-condensing)		<b>Power</b> 115 V AC, 60 Hz, 2.1 A 230 V AC, 50 Hz, 1.1 A
<b>Configuration</b>	Bench-top or 19" (48.3 cm) rack-mount, 3U		<b>Weight</b> < 20 lb (9.07 kg)



AMETEK MOCON - Baseline  
 19661 Highway 36  
 PO Box 649  
 Lyons, CO 80540 USA  
 T: +1 303.823.6661  
[www.baseline-mocon.com](http://www.baseline-mocon.com)

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