

SERIES 9000

TOTAL HYDROCARBON ANALYZER



Accurate and reliable total hydrocarbon analysis
over a broad range of concentrations

Continuous monitoring of total hydrocarbon content in non-condensing gases

The Series 9000 Hydrocarbon Analyzer is a microprocessor-based instrument designed for continuous ambient or process hydrocarbon gas measurement in environmental or industrial settings. The analyzer can be purchased in a variety of configurations with internal components for single or multi-point sampling (with or without a sample pump) for pre-filtered (< 0.1 microns) non-condensing samples.

Detection limits down to < 10 ppb. User-programmable ranges from 1 ppm up to 100% as methane (CH₄) 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 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[®]
BASELINE

AMETEK[®]
PROCESS & ANALYTICAL INSTRUMENTS

Applications

- Beverage-grade CO₂ analysis
- Fenceline (perimeter) monitoring around industrial sites
- Scrubber and oxidizer efficiency
- Carbon bed breakthrough detection
- Contaminant analysis in pure/high purity/ultra high purity inert gases
- Well logging
- Industrial hygiene and safety monitoring
- LEL monitoring

Features & Benefits

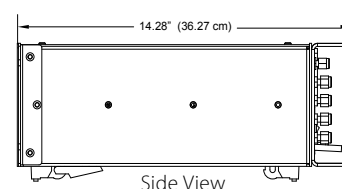
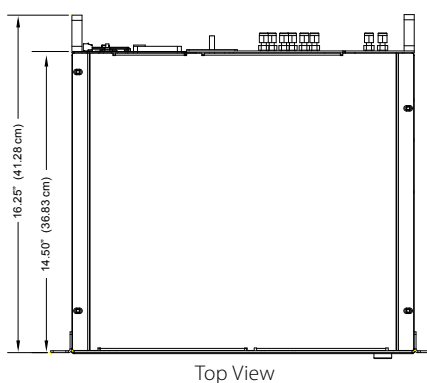
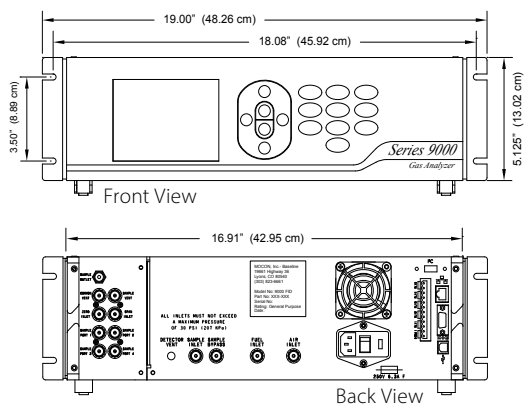
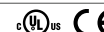
- Flame Ionization Detector (FID)
- Automatic FID ignition
- Graphical LCD display with easy to use menu system
- Sleek rack mountable profile
- Automatic calibration at user-defined intervals
- Internal multi-point sampling option
- FlowGuard electronic control of fuel, air and sample
- Electronic back-pressure regulator with sample bypass system
- Discrete, multilevel concentration & fault alarms
- Programmable analog output ranges
- Programmable relays for diagnostics, concentration, alarms, and events
- Automatic 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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Specifications

Detector	Flame Ionization (FID)		
Ranges	User definable based upon calibration within: <ul style="list-style-type: none"> • 0.01 ppm to 200 ppm (methane, CH₄), full-scale Accuracy ± 1%, full-scale • 0.10 ppm to 2,000 ppm (methane, CH₄), full-scale Accuracy ± 1%, full-scale • 0.30 ppm to 20,000 ppm (methane, CH₄), full-scale Accuracy ± 1%, full-scale • 0.003% to 100% (methane, CH₄), full-scale Accuracy ± 1%, full-scale Analyzer range is configured at the factory.		
Repeatability	± 1% full-scale response		
Drift, Zero	± 0.025% of full-scale over 24 hours		
Drift, Span	± 1% of full-scale over 24 hours		
Response Time	T90 < 5 seconds		
Sampling	Internal single or multipoint modules, with or without sample pump, for pre-filtered (1 micron) non-condensing samples		
Alarms	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		
Calibration	Programmable automatic or manual calibration		
Support Gases	Hydrogen (H ₂) — 35 cc/min. Hydrocarbon content must be < 1 ppm. Air — 175 cc/min (typical) Fuel blend options available, consult MOCON - Baseline		
Display	Graphical LCD display, 3.4" x 4.5" (8.64 x 11.43 cm)		
Outputs	Digital Standard: RS-232 LAN	Analog Standard: 1 programmable 0–20 mA or 4–20 mA isolated output Optional: 3 programmable analog outputs	Relay Standard: 5 programmable Form A relays rated to 3 A @ 230 V AC Optional: 9 programmable relays
Operating Temperature	32 to 104 °F (0 to 40 °C)	Connections	1/4" (6.35 mm) tube fitting connectors
Operating Humidity	0 to 95% (non-condensing)	Power	100–240 V AC, 50/60 Hz, 1 A
Configuration	Bench-top or 19" (48.3 cm) rack-mount, 3U	Weight	< 20 lb (9.07 kg)



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