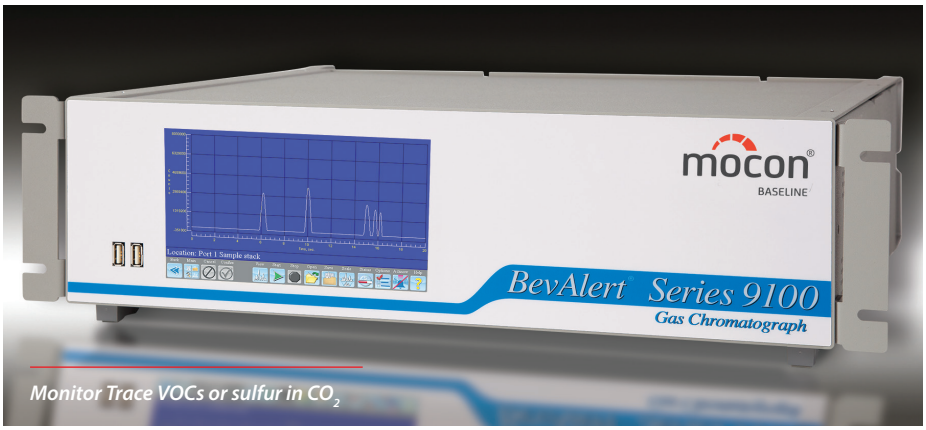
SERIES 9100 BEVALERT®

BEVERAGE CO_2 GAS CHROMATOGRAPH

DATA SHEET



Monitor Trace VOCs or sulfur in CO_2

Designed Specifically for CO_2 Applications

The Baseline BevAlert® Series 9100 Gas Chromatograph (GC) is a specialized instrument utilized by specialty gas manufacturers and the food and beverage industry to monitor trace volatile organic compounds (VOCs) or total sulfur (TS) in CO2 used for carbonated beverages (water, carbonated drinks, beer, etc.), as well as quick frozen foods. The BevAlert Series 9100 meets, exceeds, and complies with International Society of Beverage Technologists® (ISBT) criteria and methodologies for low-level analysis and continuous monitoring of the most critical CO_2 impurities.

The GC is designed to continuously monitor single and multiple gas components in a wide range of applications for the beverage and food industries. Applications include acetaldehyde, benzene, toluene, ethyl benzene, xylenes, ethanol, methanol, vinyl chloride, ethylene oxide, and many others.

The analyzer is microprocessor-based and contains powerful embedded firmware. This makes it an on-line instrument with GC technology that is virtually transparent to the end user. The Series 9100's automatic calibration is ideal for unattended operation. The instrument's compact size and design make it transportable and allows for either 19" rack mount configuration or bench top use.

All of the beverage/food applications are factory pre-configured to enable easy start up and operation. The internal system software receives your instructions directly, using an LCD touch screen on the front panel. The GC's automatic calibration is ideal for unattended operation. A variety of industry standard outputs are available, such as network (LAN), RS-232, multiple 4–20 mA or 0–20 mA, and multiple relays for concentration alarms, diagnostics or user specified timed events. Data collection features include chromatograms and user-definable text formats for exporting data to reports. Data storage options are either continuous or based on events, such as alarms.

Applications

- Trace Impurities in CO_2
- ppb level measurement
  - Acetaldehyde
  - Benzene
  - Toluene
  - Ethylbenzene
  - Xylenes
  - Vinyl Chloride
  - Ethylene oxide (EtO)
- ppm level measurement of methanol
- ppb level total sulfur measurement of organic and inorganic sulfur compounds

Features & Benefits

- No pre-concentration required
- Continuous unattended operation
- Total Sulfur: Detection limit of < 20 ppb as hydrogen sulfide
- Integrated GC software - No need for external computer
- 2 USB ports for mouse, keyboard or flash drive
- Color LED graphical display with touch screen
- Display options include:
  - Chromatogram
  - Concentrations
  - Historical Data
  - Diagnostics
  - Sequencing and Methods
- Automatic and remote calibration
- Multipoint sampling options
- LAN connection
- Multiple analog output options
- User definable alarm relay options
- Internal software stores multiple analytical methods and chromatograms

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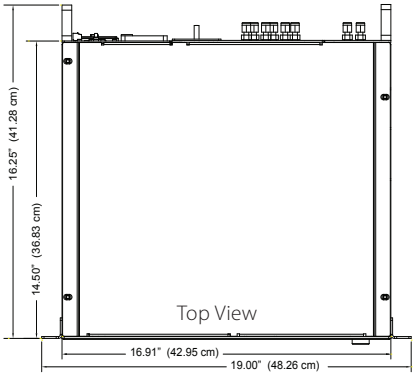
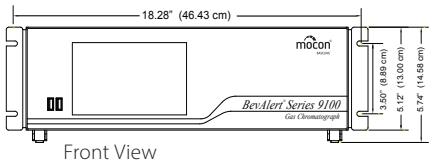
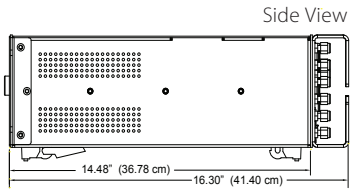
Specifications

Detectors	**Standard**: Photoionization (PID)		**Optional**: High-sensitivity (HS-PID)	
Minimum Detectable Quantity (MDQ)	ABTEX: < 50 ppb Acetaldehyde < 2 ppb Benzene < 5 ppb Toluene < 5 ppb Ethylbenzene < 5 ppb Xylenes	VCAMB: < 2 ppb Vinyl chloride < 50 ppb Acetaldehyde < 2 ppm Methanol < 2 ppb Benzene	**Total Sulfur:** < 20 ppb as Hydrogen sulfide	
Input	**Optional:** Digital input board for six contact closure inputs. Supports start sequence (8 each), start sequence loop (8 each), open method (8 each), and diagnostic functions.			
Outputs	**Standard** Digital: RS-232, LAN		**Optional** I/O Board: 5 programmable (latched/not, NE/NNE) relays as contact closure (3 A @ 250 V DC); 1 analog output, 6 digital inputs Additional expansion boards: Relays: available in multiples of 8 up to 16 Analog: available in 4 or 8 analog outputs configurable as 4–20 mA or 0–20 mA	
Display	7" Color LCD graphical display with touch screen			
USB	Two ports on the front panel for a keyboard, mouse or flash drive			
Alarms	Concentration and fault; Audible; Selectively en-/disabled for keypad input, fault, alarms, and e-mail			
Columns	Packed, micro-packed, or capillary columns; Specific to application.			
Analytical Valves	**Standard**: 10-port valve sample injection/column switching. Contact MOCON - Baseline for additional valve options			
Sampling	**Standard** Single point analyzer for pre-filtered (1 micron), non-condensing samples		**Optional** Internal: 4- or 8-point sampling External: 16 or more	
Samplers, *optional*	Built-in or external sample pump Injection port (on sample loop) Model 8950 Multipoint Sampler (4-, 8-, or 16-point) w/ up to 16 analog outputs and 32 relays			
Calibration	Automatic or manual using a dedicated standard Methods: Gas Cylinder, Model 8990 Permeation Calibrator, or response factors			
Support Gases	**BTEX** Carrier: N_2 (H_2 optional)	**VCAMB** Carrier: N_2 (H_2 optional)	**Total Sulfur** Carrier and reactor: H_2	
Operating Temperature	32 °F to 104 °F (0 °C to 40 °C)		**Operating Humidity**	0 to 95% (non-condensing)
Configuration	Bench-top or 19" (48.3 cm) rack-mount, 3U		**Connections**	1/4" or 1/8" O.D. tube compression fittings, 1/8" Legris, or 6 mm O.D. tube compression
Power	100/230 V AC, 50/60 Hz, 2 Amp		**Weight**	< 30 lb (13.64 kg)







Accessories

- Model 9150 Multipoint Sampler
- Model 8990 Permeation Calibrator
- Model 9130 Sample Conditioner
- Gas Generators — Zero Air, H_2 or N_2

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