

eGC

Autonomous Trace Toxic Chemical Monitor for Field Applications



PRODUCT HIGHLIGHTS

- Fenceline monitoring
- Specific gas detection
 - Benzene
- EPA compliance reporting
- Excellent sensitivity with ppt detection levels
- Accurate and precise
- Low cost of operation & sustainment

eGC (environmental Gas Chromatograph) represents a new cost effective approach to gas chromatographic monitoring products for field applications. It is configured as a chemical specific instrument capable of measuring at trace environmental concentration levels, sub parts per billion, ideal for ambient air fenceline monitoring applications.

This product is a significant technological improvement over traditional process gas chromatograph's configured for ambient air monitoring. It is a fully autonomous instrument requiring no external carrier gas support. Additionally, it can be configured to operate using solar power, allowing convenience of deployment to remote areas. All analysis data is communicated via a cellular modem to the cloud where it can be easily accessed and shared. eGC has been tested to operate outdoors under harsh real world ambient conditions (-10 ° to 45°C) and is capable of the accuracy and precision of analytical laboratory instrument.

Using gas chromatography as its method of analysis, eGC separates the components of a workplace ambient air sample to allow the target chemicals to be easily detected. This allows a phased real time measurement of a variety of threat chemicals such as benzene or vinyl chloride in the field.

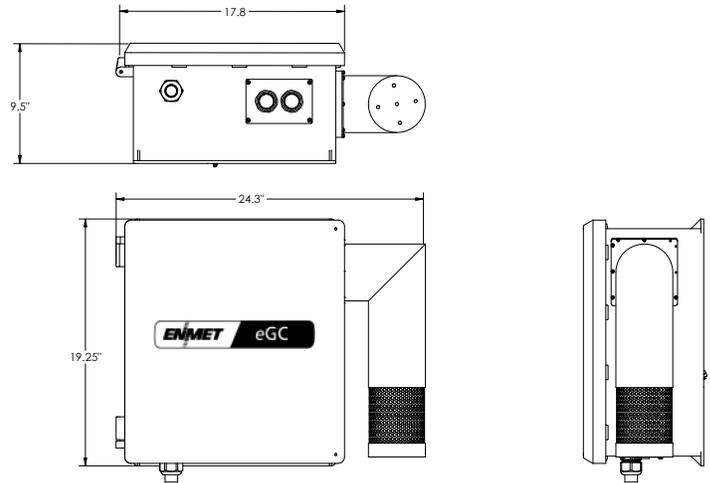
Analysis begins by collecting a composite air sample using a high volume transport fan, where a small air sample is collected for analysis; this sample is collected on the sample modulator or pre-column for analysis. This sample is transferred to the chromatographic column for separation. As the chemicals elute from the column they are detected by the sensor. The sensor measures a change of state or difference over time, which causes the sensor baseline frequency shift at a specific time for a specific chemical. This change will be compared to the reference calibration and the result will be reported in concentration units typically ppb (parts per billion). The typical sample analysis takes 2 to 5 minutes to complete and the cycle repeats on a continuous basis.

eGC is very economical to deploy and sustain in the field. It has an optional automated calibration check for quality assurance. Calibration checks are run as programmed to a known standard at a specific time and interval. The general service interval is 6 months where you would replace the disposable low pressure calibration gas cylinder and carrier scrubber. eGC is a next generation solution for trace chemical fenceline analysis for broad spectrum of industrial environments.

GENERAL SPECIFICATIONS

Analysis Range:	0.5ppbv to 200 ppbv (Benzene)
Analysis Time:	5 to 10 minutes (Application Dependent)
User Interface:	Web
Data Log:	Web Cloud - Unlimited
External Communication:	Cellular Modem
Back up Data:	USB memory drive
Calibration Frequency:	User programmable
Carrier Gas Scrubber:	>10,000 hours
Input Power:	12 VDC / Solar panel option
Operating Temperature:	-10 to 45°C or 14° to 122°F
Dimensions:	44.5 x 49.5 x 21.3 cm 17.5 x 19.5 x 9.5 inches
Weight:	44 lbs, 19.95Kg

DIMENSIONS



ORDERING INFORMATION

Contact ENMET sales department for a list of applications and product ordering information.

GASES

Benzene, C ₆ H ₆	Ethylene oxide, ETO, C ₂ H ₄ O	Vinyl chloride, VCM, C ₂ H ₃ Cl	1-3 Butadiene, C ₄ H ₆																	
--	--	---	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--