

mGC

Portable Workplace Detector for Trace Toxic Chemicals



PRODUCT HIGHLIGHTS

- Handheld portable monitor
- Specific gas detection
 - Ethylene Oxide
 - Benzene
 - Vinyl Chloride
- OSHA compliance reporting
- Excellent sensitivity
 - Sub ppm detection
- Accurate and precise
- Low cost of operation & sustainment

mGC (mini Gas Chromatograph) is a portable chemical specific instrument capable of measuring at sub ppm levels. This handheld instrument is designed to detect threat chemicals below the OSHA permissible exposure limits in the industrial workplace for worker safety.

This portable monitor improves information collected from traditional multi-gas survey instruments by providing details about the chemical composition of the sample. A key advantage is sampling. It quickly takes a sample (10 seconds) and allows the operator to leave the hazardous area. This improves on the typical time required by electrochemical sensors detectors to reach a t-90% response level. Additionally, *mGC* avoids the analysis delays associated with sample tube collection methods and subsequent laboratory analysis allowing exposure levels to be determined in the field and corrective action taken.

Using gas chromatography as its method of analysis, *mGC* separates the components of a workplace ambient air sample to allow the target chemicals to be detected without compromise. This allows real time measure of a variety of threat chemical such as benzene or ethylene oxide to be determined in the field with high accuracy and precision.

Analysis begins by collecting a small air sample via an internal pump for 10 seconds; this sample

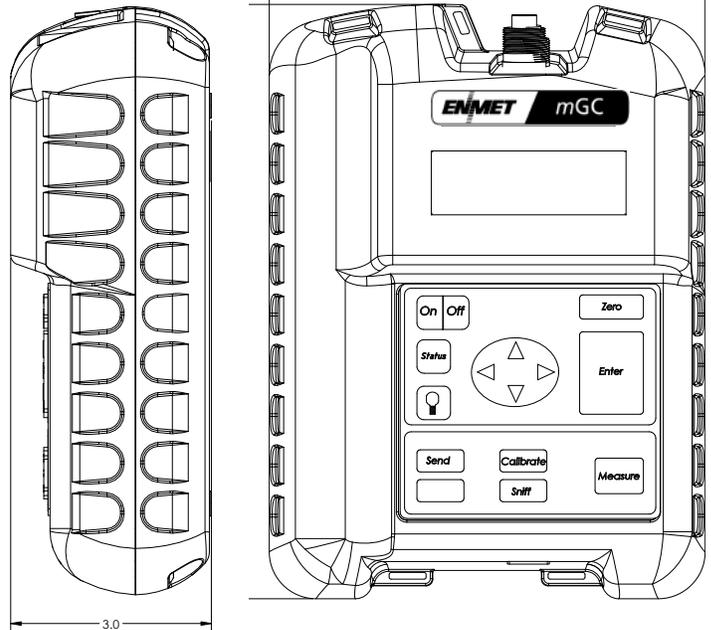
is collected on the sample modulator or pre-column for collection. This sample is transferred to the chromatographic column for separation. As the chemicals elute from the column they are detected by the sensor. The sensor measures a change of state or difference over time, which causes the sensor baseline 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 sub ppm (parts per million). The typical sample analysis takes 2 to 3 minutes to complete. This is the process that provides the chemical specific analysis and allows the user to gain insight into the threats superior to on-site relying on survey VOC instruments and faster than follow up laboratory analysis.

mGC is economical to sustain in the field. It requires no carrier gas cylinders or sensor support gases to function. It automatically collects a data log which records each analysis providing record of all measurement results. This log is secure and it can be easily sent to a PC for compliance records and reports. The general service interval for this analyzer is every 6 months at which time only the carrier scrubber would need replacing. *mGC* represents an advanced yet simple solution for hazardous area identification and OSHA compliance reporting.

GENERAL SPECIFICATIONS

User Interface:	Menu Driven with Function Buttons
Keypad:	Large buttons with Tactile Feedback (rubberized)
Datalog:	Storage 150 measurements
External Communication:	PC RS-232c
Calibration Frequency:	User programmable
Carrier Gas Scrubber:	>5000 hours (6 months)
Battery Type:	Nickel Metal Hydride (NI-MH)
Operating Life:	6 hours
Recharge Time:	1.5 hours
Input Power:	Charger - 110/230VAc 50-60Hz
Operating Temperature:	5° to 40° C or 41° to 90° F
Dimensions:	6.5 W x 8.9 H x 3.0 D inches (16.5 W x 22.6 H x 7.6 D cm)
Weight:	3.8 lbs. (1.7 kg)
Approvals:	Pending – (Designed to Meet) Class 1 Division 1 Groups A, B, C, and D (US and Canada) EEx [is] IIc T6 (Europe) FCC Class B CE

DIMENSIONS



ORDERING INFORMATION

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

GASES

