

TRACE GASES IN AMBIENT AIR

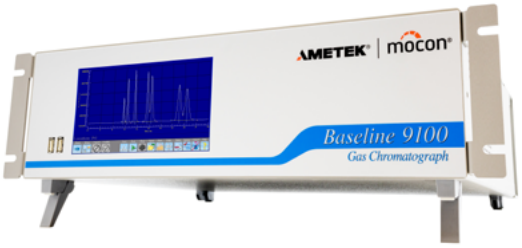
ENVIRONMENTAL MONITORING & FUGITIVE EMISSIONS

Parts-per-billion detection utilizing gas chromatographs and hydrocarbon analyzers.

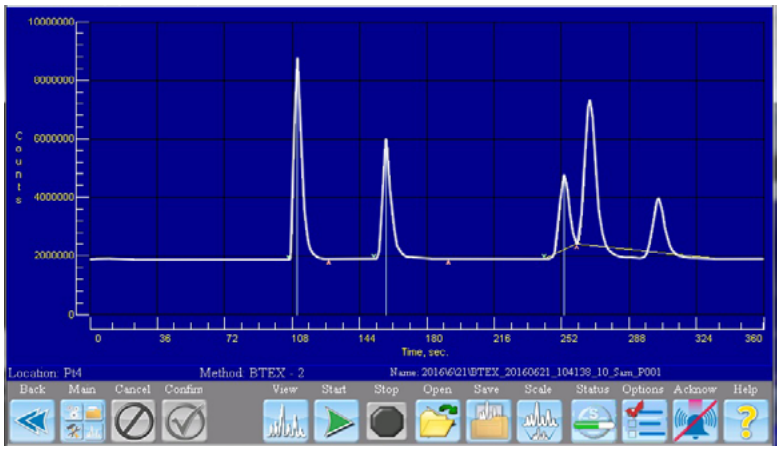
mocon®
AMETEK®

AMBIENT AIR MONITORING

The MOCON® BASELINE® series of gas monitoring instruments measure many common hazardous air pollutants — such as benzene and volatile organic compounds (VOCs) — as well as greenhouse gasses like methane. These instruments offer calibration features to ensure you get valid data, so you can spend time modeling conditions rather than verifying accuracy.



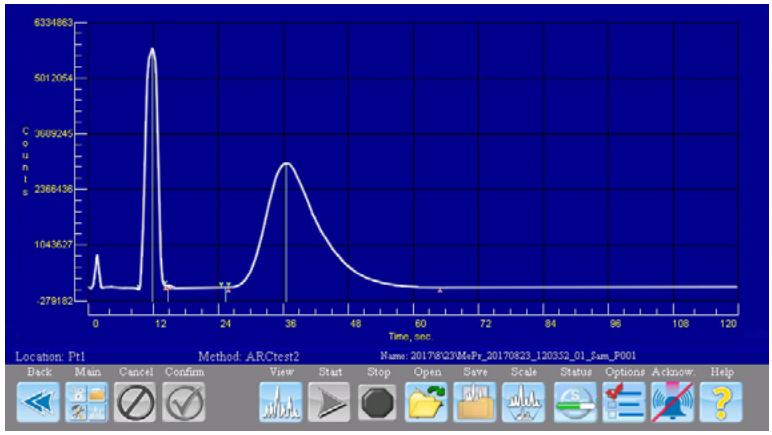
BTEX in Air



Detector	Photoionization (PID) High Sensitivity PID (HS-PID)
Carrier Gas	UHP Nitrogen
Sample	Ambient Air
MDQ/LDL	PID: Benzene < 2ppb, TEX < 5ppb HS-PID: Benzene < 0.1ppb, TEX < 0.3ppb

The BASELINE 9100 GC is utilized in ambient air networks around metropolitan areas and fence-line monitoring at industrial sites, and provides direct sub part-per-billion (ppb) measurement of benzene, toluene, ethylbenzene and p-, m-, and o-xylenes (BTEX) in ambient air. BTEX compounds are categorized as volatile organic compounds (VOCs) and occur naturally in crude oil, as well as gas emissions from volcanoes and forest fires. BTEX compounds are released from emissions, paints/ lacquers, rubber products, adhesives and pharmaceutical products.

Methane/Non-Methane in Air

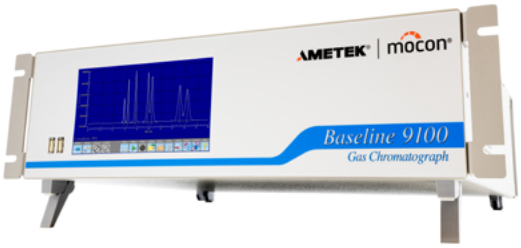


Detector	Flame Ionization (FID)
Carrier Gas	UHP Hydrogen
Sample	Ambient Air
MDQ/LDL	< 30ppb

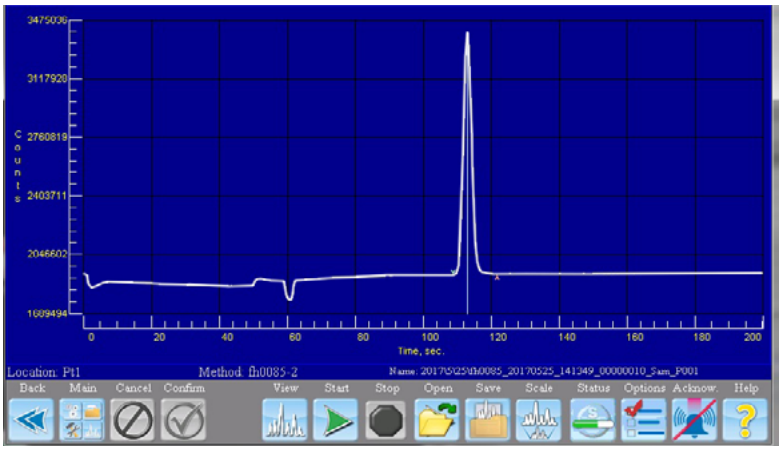
The CHA MNME and BASELINE 9100 GC provide measurements of Methane and Non-Methane Hydrocarbons. This instrument is utilized in ambient air monitoring networks around metropolitan areas, fence-line monitoring at industrial plants and hazardous waste sites, and in the production of high purity industrial gases. Methane is a naturally occurring gas at PPM levels and not considered a pollutant; it is the Non-Methane hydrocarbons that are of primary concern.

FUGITIVE EMISSIONS

The MOCON BASELINE 9100 GC detects very low levels of numerous compounds, at multiple sample points, giving the user time to react and correct. Many different custom analyses have been created by AMETEK MOCON to detect fugitive emissions, monitors chemicals such as acrylonitrile, naphthalene, styrene, 1,3-butadiene, formaldehyde, methyl ethyl ketone and many others.



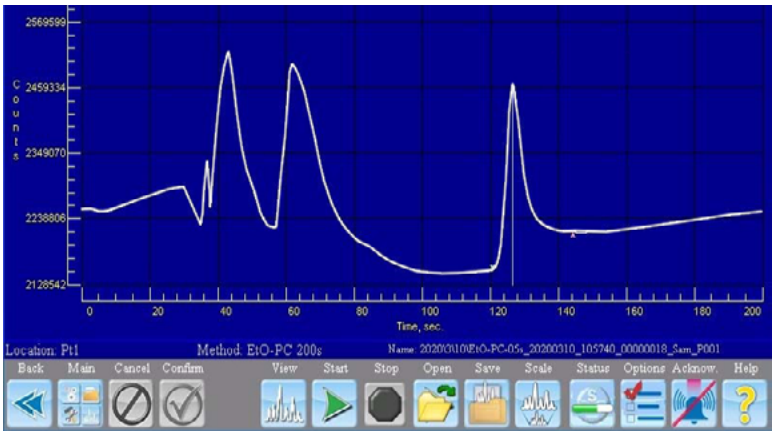
Acrylonitrile in Air



Detector	Flame Ionization (FID)
Support Gases	UHP Hydrogen
Sample	Ambient Air
MDQ/LDL	< 20ppb

The BASELINE 9100 GC, when combined with the 9150 Multipoint Sampler, can sample more than 30 locations in a user selectable sequence and provide ppb or sub-ppb measurements without pre-concentration. This will enable personnel to react quickly at the first sign of a very small tank leak, protecting workers and saving product.

Ethylene Oxide in Outdoor Air



Detector	High Sensitivity PID (HS-PID)
Support Gases	UHP Nitrogen
Sample	Ambient Air
MDQ/LDL	< 1.0ppb

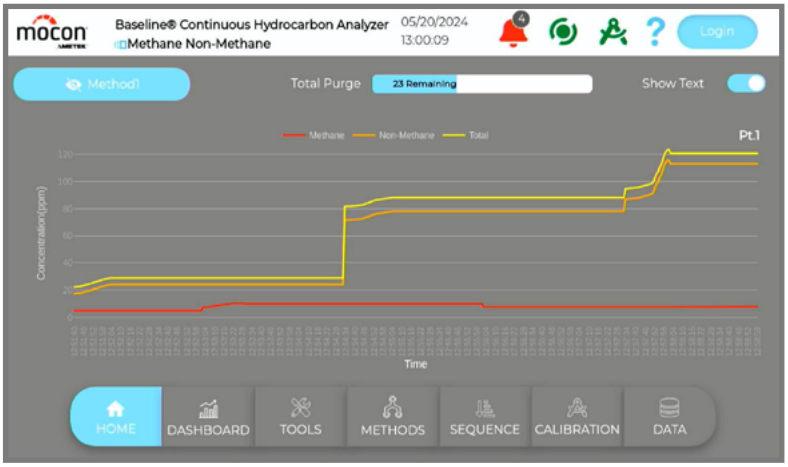
Trace level EO detection for environmental compliance is becoming more important as permissible vented levels are decreasing. The BASELINE 9100 GC, utilizing a high sensitivity PID, can achieve low ppb detection levels in less than 4 minutes. AMETEK MOCON has specialized in OSHA monitoring of EO for decades and has taken that experience, including the elimination of known interferences, into outdoor environmental monitoring. Multipoint sampling options are available for fence-line applications.

CONTINUOUS HYDROCARBON MONITORING

MOCON BASELINE CHA Total Hydrocarbon Analyzers are designed for continuous hydrocarbon gas measurement in industrial settings like fence-line monitoring and air quality testing. 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.

Hydrocarbons in Ambient Air

Detector	Flame Ionization (FID)
Support Gases	UHP H_2, Zero Air
Sample	Ultra-Pure Gases
CHA/THA	< 10ppb
CHA/MNME	< 30ppb



The BASELINE CHA Hydrocarbon Analyzers continuously monitor total or non-methane hydrocarbons in ambient air and emission applications. The CHA Analyzers are updated every second and can display either visual data or a graph of hydrocarbons over time. This easy-to-read information provides quick information on levels and trends. Analyzers are easily integrated with data analysis systems. These rack-mountable analyzers are accurate, reliable and linear.

CUSTOM PROCESS GC APPLICATIONS

The applications shown in this brochure are common examples of the different analyses we have created for our customers. Contact us to discuss your detection needs. AMETEK MOCON will select the best detector for your application commonly utilizing Photoionization (PID), High-sensitivity Photoionization (HS-PID), Flame Ionization (FID) or Thermal Conductivity (TCD). Analytical arrangements typically involve a single-valve, two-column configuration, but may vary depending upon the application.

mocon® / AMETEK®

MB-PROA-0162-Trace Gases in Ambient Air-A042.1-0524-1.1

AMETEK MOCON
7500 Mendelssohn Ave. N
Minneapolis, MN 55428 USA
info.mocon@ametek.com
www.ametekmocon.com