

TRACE GASES IN AMBIENT AIR **ENVIRONMENTAL MONITORING &** **FUGITIVE EMISSIONS**

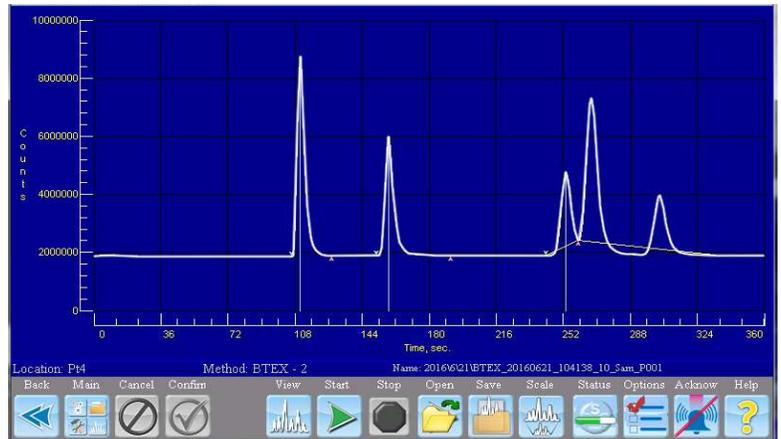
Part-Per-Billion Detection Utilizing Gas Chromatographs
and Hydrocarbon Analyzers

Ambient Air Monitoring

AMETEK MOCON's 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 including methane. These instruments offer calibration features ensuring your data is valid so you can spend your time modeling conditions rather than verifying accuracy.



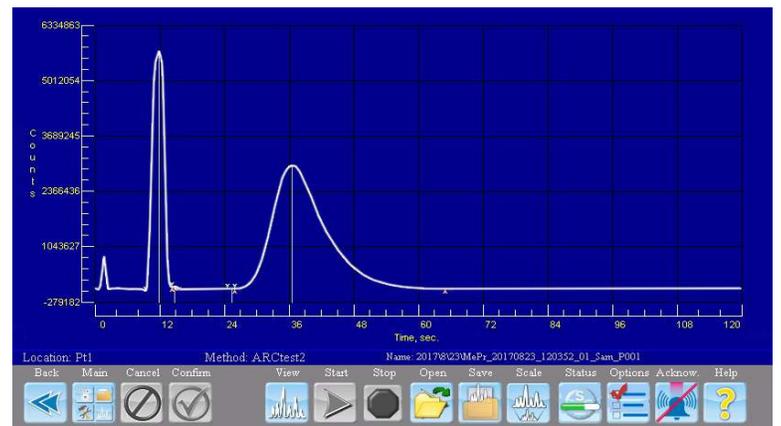
BTEX In Air



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

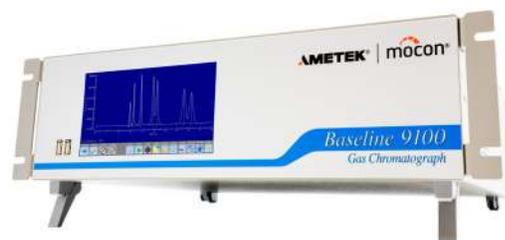


DETECTOR:	Flame Ionization (FID)
CARRIER GAS:	UHP Hydrogen
SAMPLE:	Ambient Air
MDQ/LDL:	< 30ppb

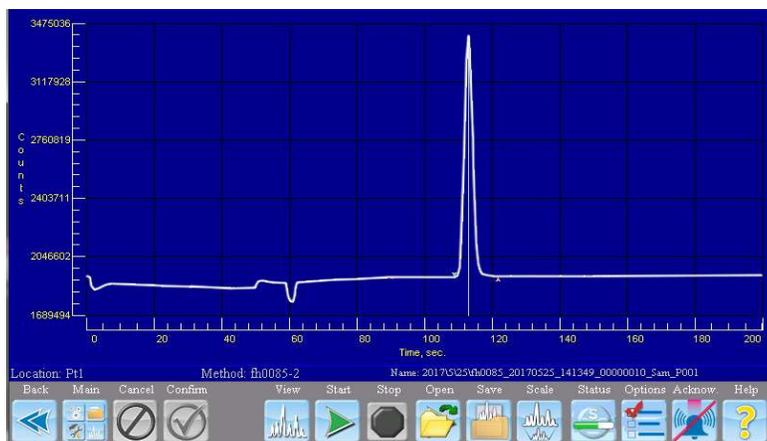
The Baseline 9100 GC provides direct measurement of Methane and Non-Methane Hydrocarbons. This instrument is utilized in ambient air monitoring networks around metropolitan areas, fence-line monitoring at industrial plants and hazardous waste sites, and in the production of high purity industrial gases. 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

AMETEK MOCON's 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 MOCON to detect fugitive emissions, monitors chemicals such as acrylonitrile, naphthalene, styrene, 1,3-butadiene, formaldehyde, methyl ethyl ketone, and many others.



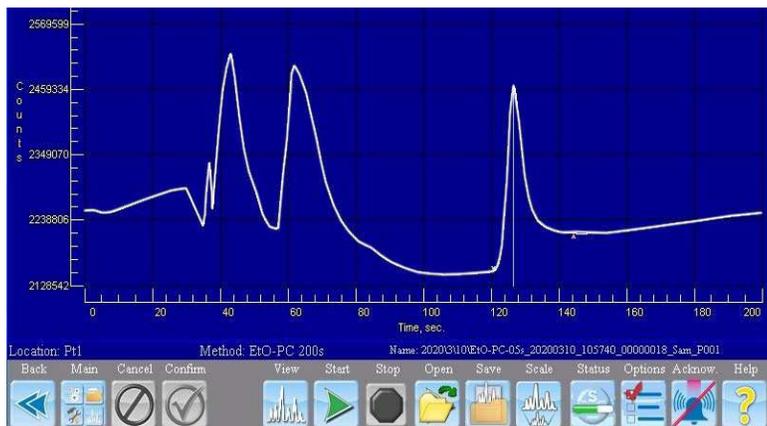
Acrylonitrile in Air



DETECTOR:	Flame Ionization (FID)
CARRIER GAS:	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

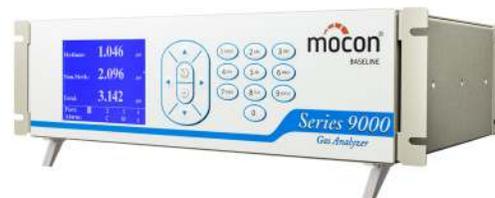


DETECTOR:	High Sensitivity PID (HS-PID)
CARRIER GAS:	UHP Nitrogen
SAMPLE:	Ambient Air
MDQ/LDL:	< 0.1ppb

Trace level EO detection for environmental compliance is becoming more important as permissible vented levels are decreasing. The Baseline 9100 GC, utilizing a fast built-in pre-concentrator and a high sensitivity PID, can achieve sub-ppb detection levels in less than 4 minutes. 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

The Baseline® 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.



Hydrocarbons In Ambient Air

The Baseline® 9000 hydrocarbon analyzer continuously monitors total or non-methane hydrocarbons in ultra pure gases, using Baseline Hydrocarbon Analyzers. These rack-mountable Hydrocarbon Analyzers are accurate, reliable, and linear.

Using a Flame Ionization Detector (FID), AMETEK MOCON's FlowGuard electronic control regulates the delivery of fuel, air, and a small portion of the sample gas, to the FID. Available in versions that can provide total hydrocarbons, methane/non-methane/total hydrocarbons, or CO/CO2/total hydrocarbons depending upon the source of potential impurities and the ultra-pure gas to be analyzed.



Methane:	1.046	ppm		
Non-Meth.:	2.096	ppm		
Total:	3.142	ppm		
Port:	<input checked="" type="checkbox"/>	2	3	4
Alarm:	C	W	A	

DETECTOR:	Flame Ionization (FID)
SUPPORT GASES:	UHP H2, Zero Air
SAMPLE:	Ultra-Pure Gases
MDQ/LDL:	10ppb

Custom Process GC Applications



The applications shown are just common examples of the hundreds of 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

