brainco www.brainco.com.ar

UV Hound Series

Portable UVDOAS Multi-gas Analyzers

Dependable High Quality Air Monitoring

- Multi-Gas Capability
- Individual VOCs
- PPB Sensitivity
- Non-Contact Optical Measurement
- Automated Reporting
- Configurable Alarms
- Cannot be Poisoned
- SAFER Systems compatible

World's first portable continuous Benzene specific monitor!
Detects Ammonia, BTEX, Chlorine, Mercury, and many more compounds simultaneously in real time.
The Hound series analyzers are network ready providing remote data and alarm connectivity.
Low cost of ownership is achieved with only two replaceable components and lifetime calibration.
Featuring PPB level detection limits and simultaneous multi-gas capability, Hound analyzers are the recognized choice for industrial hygiene, leak detection, HazMat first response, environment contamination and remediation, and portable indoor air safety monitoring.

CONTACT:

Cerex Monitoring Solutions, LLC.
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Atlanta, GA. 30329
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www.cerexms.com

Accurate Readings Within Seconds

Three Models to Choose From:

Cerex Micro Hound, Mini Hound, and Hound Analyzers utilize the same core technology, differing in physical size and minimum detection limits. All are portable, capable of continuous air monitoring, and designed for years of service.

Micro Hound: Our basic model utilizes a 2.5 meter sample path to achieve PPB level detections of known carcinogens. The Micro Hound's absorption detection technology may be complemented with up to three optional electrochemical cells. This unit is equipped with wheels for rolling transport.

Mini Hound: Our mid-size model balances low ppb detection limits with excellent portability. The Mini Hound features a compact 8.5 meter sample path for a big increase in sensitivity, and is equipped with wheels for rolling transport.

Hound: Our largest and most sensitive model. This unit offers our lowest detection limits with a standard 17 meter sample path. Depending on your application, the path length may be increased up to 22 meters for a 20% improvement in detection capability. Ensure work areas are free from VOCs and other toxic compounds with the Hound. The Hound is equipped with wheels for rolling transport.

All Hound Series Analyzers Feature:

The Hound series represents the market's most cost effective solution for continuous monitoring of ppb levels of Benzene—C_6H_6. The detection technology used by the Hound series achieves real time speciation of BTEX components directly without the use of one time use gas membranes used by other manufacturers. In addition to all BTEX components the Hound series easily detects Ammonia—NH_3, Nitric Oxide—NO, Nitrogen Dioxide—NO_2, and Sulfur Dioxide—SO_2 satisfying your monitoring needs with one analyzer. Many other gas compounds are available for measurement so inquire today!

- **Individually monitor regulated VOCs without cross interference**
- **Touchscreen Interface**
- **Integrated WiFi**
- **Universal data file output**
- **Simultaneous multi-gas detection capabilities**
- **Part per billion minimum detection limits**
- **Inherent calibration: No Bump Calibration, Ever!**
- **User configurable audible and visual alarms**
- **Configurable Email alerts and data logs**
- **Low cost of ownership**
- **Unaffected by humidity**
- **Cannot be Poisoned**

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Cerex CMS Software:

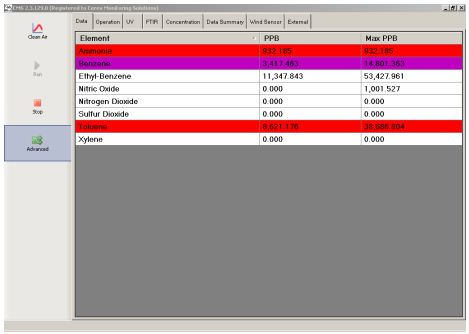
Control is in your hands...

All Cerex analyzers use Cerex's Continuous Monitoring Software. CMS provides the user interface, data-logging, and analytic gas detection and quantification functionality. CMS features user configurable alarms for gas concentration thresholds, time weighted average concentration thresholds, auxiliary optional sensor levels, and Hound self-monitored system faults. All Hound analyzers come with a companion post-processing software package for secondary analysis of real time results.

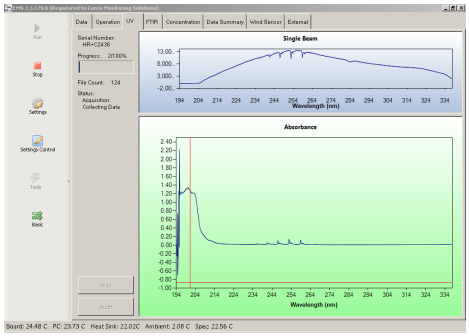
...from anywhere

Integrated GPS combined with a connected WiFi network or optional Cellular Modem adds powerful interconnected real time monitoring, automated data reporting and automated alarm reporting functionality. Hound analyzers may be deployed and environmental conditions monitored by onsite personnel as well as remote decision makers via any PC or smartphone with an internet connection.

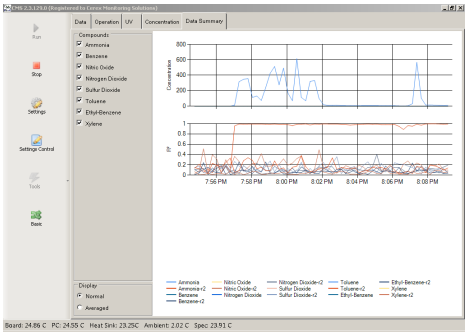
The CMS Data tab displays per acquisition gas concentration, data validity and visual alarms.

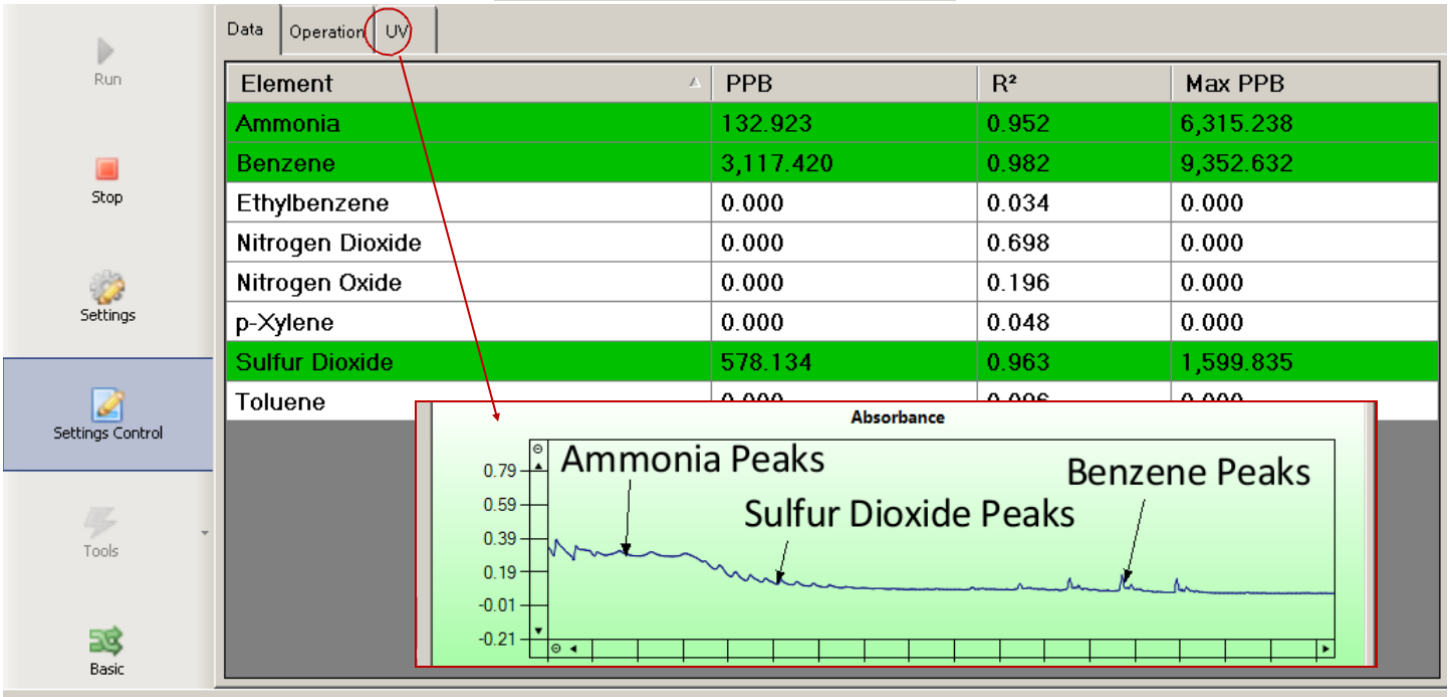


Single beam and absorption plots are readily viewed in real time. Raw single beam data is always saved.



Trended concentration data is available at a glance on the CMS Data Summary tab.





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Detection Capabilities

Cerex UVDOAS Delivers What Other Technologies Cannot

Unlike Electro-chemical, PID, FID and GC/MS based detection methods, Cerex UltraViolet Differential Optical Absorption, UVDOAS, delivers simultaneous monitoring of ppb levels of individual VOC species like Benzene, Toluene, Ethylbenzene, and Xylene in real time. The method is unaffected by ambient humidity, requires no sample conditioning filter change prior to monitoring, requires no carrier gas, requires no wet chemistry, and incurs no analytic costs or sample handling costs. Results are immediate, and the raw data containing all the information necessary for gas identification and quantification is always saved.

UVDOAS Principle of Operation

Similar in principle to more expensive FTIR, UV-DOAS offers better detection limits at lower cost without interference from water vapor. Unlike PID and FID, UVDOAS can identify individual gas compounds in real time without specialized one time use filters. The technology works by directing a UV beam through an ambient air sample then into a high resolution miniature spectrometer where the unique wavelength dependent absorptions due to target gases are individually measured and recorded. A classical least squares regression analysis compares the measured absorption spectrum to calibrated reference absorption spectrum files. Beer's law is then used to determine gas concentrations per USEPA TO-16 Methodology. Hound series analyzers will detect many gases simultaneously at ppb concentrations within complex mixtures.

Single Gas Minimum Detection Limits

Parameter	HOUND	MINI HOUND	MICRO HOUND	Units
Ammonia (NH_3) MDL	12	24	82	ppb
1,3 Butadiene MDL	12	24	82	ppb
Benzene MDL	16	31	106	ppb
Carbon Disulfide MDL	12	24	82	ppb
Chlorine (Cl_2) MDL	294	588	2000	ppb
Ethyl Benzene MDL	18	35	119	ppb
Formaldehyde MDL	188	376	1279	ppb
Hydrogen Sulfide (H_2S) MDL	29	59	201	ppb
Mercury (Hg) MDL	6	12	41	ppb
Naphthalene MDL	12	24	82	ppb
Nitrogen Oxide (NO) MDL	17	34	116	ppb
Nitrogen Dioxide (NO_2) MDL	238	475	1615	ppb
Ozone (O_3) MDL	118	235	799	ppb
o-xylene MDL	222	444	1510	ppb
m-xylene MDL	21	41	140	ppb
p-xylene MDL	14	28	96	ppb
Sulfur Dioxide (SO_2) MDL	19	38	130	ppb
Toluene MDL	49	99	337	ppb
Accuracy (TYP)	±2	±2	±2	%FS
Path Length	17.00	8.50	2.5	Meters

The Cerex Hound series instruments are multi-gas analyzers able to provide high sensitivity to mixtures and single gases in air. The table contains a sample of compounds available for real time analysis.

Individual gas species or aggregate concentrations may be reported at the operator's discretion.

Hound analyzers are designed to minimize operational costs and maximize uptime.

Only two consumable items: The UV source and air intake filter. Both are field replaceable in under fifteen minutes.

UV sources are warranted for 4000 hours of operation. Actual lifetime typically exceeds 5000 hours.

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Options that make sense for real world air monitoring

Powerful SAFER Systems Integration

Hounds utilizing a WiFi network, optional serial RF network, or optional Cellular Modem add powerful integration with new or existing SAFER Systems real time monitoring and reporting networks. Cerex Monitoring Solutions works with SAFER Systems to ensure seamless integration of all its analyzers in facilities protected by SAFER Systems plume modeling and emergency management software. Inquire today on how to add Cerex's powerful multi-gas analyzers to your emergency response program.

Integrated Meteorological Monitoring

Definitive data support is available by ordering a Hound analyzer with integrated temperature and 3-D ultrasonic wind modeling hardware. All data parameters are integrated into CMS data tables, and the anemometer is tripod mounted for rapid deployment.

External Battery Systems

Hound analyzers utilize a quick change internal lithium polymer battery. Battery options include spare batteries and external batteries which extend continuous monitoring capability to 17 hours in the absence of power without recharge.

Additional Sensor Capabilities

Up to six additional sensors may be added to the Hound, four to the Mini Hound and three to the Micro Hound to provide monitoring of gases not sensitive to UVDOAS technology. Data from additional sensors is fully integrated into CMS and displayed per acquisition cycle as well as integrated into CMS data summary tables. Below is a table of commonly requested additional sensors. Additional sensors must be ordered at the time of manufacture, or the analyzer returned to Cerex for retro-fit.

CEREX UV HOUND Series Optional Sensors						
Compound	**Technology**	**TYP Lifetime**	**Range**	**LDL**	**Accuracy**	**T-90**
Arsine (AsH3)	Electrochemical	2-3 Years	0 - 1.5 PPM	2% FS	±5% FS	60 S
Carbon Monoxide (CO)	Electrochemical	2-3 Years	0 - 300 PPM	2% FS	±5% FS	30 S
Carbon Dioxide (CO2)	Infrared	5 + Years	0 - 5000 PPM	2% FS	±5% FS	30 S
Hydrogen Cyanide (HCN)	Electrochemical	2-3 Years	0 - 15 PPM	2% FS	±5% FS	60 S
LEL (General Purpose)	Catalytic	2-3 Years	0 - 100% LEL	2% FS	±5% FS	30 S
Methane (CH4)	Infrared	5 + Years	0 - 100% LEL	1% LEL	±5% FS	30 S
Oxygen (O2)	Galvanic Cell	2-3 Years	0 - 25% Vol	0.1% FS	±0.5% Vol	20 S
Hydrogen Sulfide (H2S)	Electrochemical	2-3 Years	0 - 100 PPM	2% FS	±5% FS	45 S

Specifications and Dimensions

CEREX HOUND Series Analyzer Dimensions	
HOUND	38.12" x 16" x 6.12" (96.8 x 40.6 x 15.5 cm) 55 Lbs (25kg)
MINI HOUND	22.07" x 17.92" x 10.42" (56 x 45.5 x 26.5 cm) 53 Lbs (24kg)
MICRO HOUND	22" x 13.81" x 9" (55.9 x 35.1 x 22.9 cm) 46 Lbs (21kg)

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CEREX HOUND Series Analyzer Specifications	
Charging Input Voltage	100VAC to 240VAC , Single Phase 47-63Hz
Input Current	4A Max
Operating Ambient Temperature	0 to +45°C
Storage Temperature	-10 to 60 °C
Operating and Storage Humidity	0-90% Non-Condensing
Lamp Life	4000 Hour Manufacturer Warranty
Internal Battery Life (TYP)	3.5 Hours, optionally to 16 Hours
Spectral Range	195nm to 400nm*
Spectral Resolution	0.05nm – 0.20nm*
Intake Particulate Filter	0.3 Micron
Sample Intake Rate	80 LPM
Sample Probe Length	3 meters, with quick connect fitting
*Dependent upon spectrometer installed.	