



## **CEREX MICRO HOUND Analyzer**

*Building upon over a decade of success with the UV HOUND, the Cerex MICROHOUND uses the same proprietary technology and laboratory-sensitive quality as its reputable bigger model - in an even smaller, lighter, and more compact casing. The most cost effective solution for continuous monitoring of parts per billion levels with real time speciation of BTEX, Ammonia, Nitric Oxide, Nitrogen Dioxide, Sulfur Dioxide, and more gases. Benzene in particular can be detected down to 5.0 ppb.*

# CEREX Micro Hound Analyzer



## General Specifications

|                                |  |
|--------------------------------|--|
| <b>Analyzer</b>                | Portable multi-gas point analyzers   |
| <b>Measuring Technology</b>    | Ultra Violet Differential Optical Absorption Spectroscopy (UV-DOAS)  |
| <b>Measuring Principle</b>     | Beer-Lambert Law   |
| <b>Measuring Technique</b>     | Classical Least Squares (CLS) regression analysis; optional Partial Least Squares (PLS)  |
| <b>Multi-gas Capability</b>    | Standard configuration is up to 5 compounds;<br>capable of simultaneous analysis of up to 50 compounds   |
| <b>Response Time</b>           | User selectable from 5 seconds and up<br>Typical output rates are 30s, 60s, 120s, or 300s<br>Time weighted average available for user defined periods (8 hour, 12 hour, 24 hour)   |
| <b>Minimum Detection Limit</b> | Gas-specific, typical parts per billion  |
| <b>Enclosure Specs</b>         | <b>Dimensions</b> 22" x 13.81" x 9" (55.9 x 35.1 x 22.9 cm)<br><b>Weight</b> 46 Lbs (21kg)<br><b>Material</b>  |
| <b>Applications</b>            | Refinery fenceline monitoring of Benzene, Toluene, and Xylenes (BTEX), Brownfield Remediation, Chemical Depot Monitoring, Manufactured Gas Plant Remediation (MGP), Perimeter Ambient Monitoring System (PAMS), Superfund Site Remediation, Tank Farm Monitoring |
| <b>Installation</b>            | Portable or permanent installation within shelter  |

## System Specifications

|                                    |  |
|------------------------------------|--|
| <b>Power Supply</b>                | 100VAC to 240VAC, Single Phase 47-63Hz , 4A Max  |
| <b>Power Connection</b>            | Environmentally sealed circular Amphenol bayonet connector.  |
| <b>Power Consumption</b>           | 240W max   |
| <b>Real Time Analysis Software</b> | Cerex Monitoring Software (CMS)<br>Windows® 10, 11 Operating System  |
| <b>Data Connection</b>             | USB, Ethernet, Bluetooth, WiFi Access Point and WiFi Station. Remote operable.   |
| <b>Digital Interface</b>           | MODBUS, VNC, and remote desktop. Spectral data may be stored locally, on a NAS, or disabled. Industrial external wireless option available.<br>USB-C for data retrieval and peripheral accessories.<br>Cellular capable for full remote access and control from any PC, anywhere.  |
| <b>Sample Intake Rate</b>          | 15 CFM   |
| <b>Sample Pump</b>                 | 3 meters, with quick connect fitting   |
| <b>Sample Gas Filtration</b>       | 0.3 Micron   |
| <b>Gas Fittings</b>                | <b>Gas Inlet</b> 1/2" Quick Coupling; 1/4" Swagelok test adaptor provided<br><b>Gas Outlet</b> Case Vent 3/8" OD push-to-connect tube adaptor provided   |
| <b>Sample Cell</b>                 | Multi-pass, path length 2 meters (depending on application)  |
| <b>Spectrometer</b>                | <b>Detector</b> Cryocooled MCT Photodetector<br><b>Spectral Range</b> 185nm to 400nm (microns)<br><b>Resolution</b> User configurable: 1cm <sup>-1</sup> , 2cm <sup>-1</sup> , 4cm <sup>-1</sup> , 8cm <sup>-1</sup> , 16cm <sup>-1</sup> , 32cm <sup>-1</sup><br>Best resolution 0.5cm <sup>-1</sup><br><b>Scan frequency</b> 6 scans/s @ 32 cm <sup>-1</sup><br><b>Source</b> SiC, 1550K<br><b>Beamsplitter</b> ZnSe<br><b>Window Material</b> ZnSe<br><b>Wavelength range</b> 600-4200 cm <sup>-1</sup> |

## Operating Conditions

|                             |  |
|-----------------------------|--|
| <b>Battery Life</b>         | 3.5 hours STD<br>14.5 Hour Optional  |
| <b>Temperature</b>          | 0C° to 55C° (Air Cooled Model), or -40C° to 55C° (Thermoelectric AC Cooled)  |
| <b>Humidity</b>             | 0 - 100% non-condensing  |
| <b>Rain</b>                 | Direct exposure rated  |
| <b>Dust / Sand</b>          | Direct exposure rated  |
| <b>Storage Conditions</b>   | General purpose atmospheres - not rated for HAZLOC zones<br>Temperature -40C° to 60C°<br>Humidity Below 80% (non-condensing) |
| <b>Instrument Cooling</b>   | Air cooled (optional thermoelectric air conditioner)   |
| <b>Sample gas pressure</b>  | Ambient  |
| <b>Sample gas flow rate</b> | 80 LPM   |

## Maintenance

|                              |                                     |
|------------------------------|-------------------------------------|
| <b>Bulb Life</b>             | 4000 Hour Manufacturer Warranty     |
| <b>Internal Battery Life</b> | 3.5 Hours, optionally to 14.5 hours |
| <b>Spectrometer</b>          | 20,000 Hours                        |

## Options

|                                    |   |
|------------------------------------|---|
| <b>Integrated Wind Mapping</b>     | Three dimensional ultrasonic anemometer with temperature measurement. Data integrated into CMS data tables and available via MODBUS.  |
| <b>Integrated Data Acquisition</b> | Optional external ports with data integration for particulate or ancillary co-located analyzers (TDLAS laser, electrochemical, etc.). |
| <b>Data Output</b>                 | MODBUS over TCP-IP is standard. MODBUS over RS-232, RS-485.   |
| <b>Analog Output</b>               | 8 channel configurable 0-24mA (4-20mA with extended range)  |
| <b>Alarms</b>                      | User configurable concentration and TLV average   |
| <b>Additional Sensors</b>          | Up to 3 additional sensors (for compounds not available in UV spectrum)   |

## Performance Specifications

|   |                                   |
|---|-----------------------------------|
| <b>Zero-point drift?</b>                | Automatic and manual zero point   |
| <b>Sensitivity drift?</b>               |                                   |
| <b>Linearity deviation?</b>             | < 2%, Self-Compensating           |
| <b>Temperature drift?</b>               |                                   |
| <b>Pressure influence?</b>              |                                   |
| <b>Background measurement interval?</b> | < 2% FS / 24hr, Self-Compensating |
| <b>Zero gas?</b>                        |                                   |