Series 4000 MINICAMS®

HALOGEN SPECIFIC DETECTOR

MINICAMS® is an automatic transportable air monitoring system. It is designed for near real-time monitoring of volatile organic compounds (VOCs) and selected gaseous inorganic compounds in ambient air or other environments. It provides rapid notification of alarm levels in the monitored areas and operates continously with minimal maintenance. Based on capillary gas chromatography (GC), the MINICAMS is a fully quantitative analytical system capable of routine multiple-compound monitoring.

The Halogen Specific Detector (XSD) is a highly-sensitive and selective detector for chlorinated compounds based on thermionic emission. Chlorinated compounds enter the high temperature reactor of the XSD, generating free chlorine atoms. These atoms are adsorbed onto an active platinum surface, which causes thermionic emission from the surface to generate a signal current. The XSD is a flameless detector, requiring only compressed air for detector operations.

Model FM-4000XSD
XSD MINICAMS and Controller

Proven, reliable technology for detecting chemical agents, precursors, simulants and selected toxic industrial compounds

- Flameless detector
- Small, lightweight, and simple to operate
- Requires minimal routine maintenance
- Small, stand-alone monitor for single or multiple sampling points in field applications; suitable for selected vehicle mounted applications
- Plug-in GC module
- Networking communications hardware for large installations
- Interface available for Facility Control System
- Additional data acquisition and report features available with the addition of CHROM-LINK®
- Multiple-analyte monitoring (up to eight compounds per MINICAMS)

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CMS Field Products

Series 4000 MINICAMS® SPECIFICATIONS

Physical	
Dimensions	**MINICAMS:** 10" L x 12" W x 15" H **Controller:** 10.5" L x 6.5" W x 5.5" H
Weight	**MINICAMS:** 20 lbs (9 kg) **Controller:** 5 lbs (2.25 kg)
Sampling Options	
Solid adsorbent preconcentration Vertical PCT with fan for enhanced trapping efficiency and faster PCT cool-down	
Fixed-volume loop	
Eight available compound gates	
Response	
XSD Sensitivity	Picogram to nanogram sensitivity for chlorinated compounds
XSD Selectivity	High halogen to hydrocarbon selectivity to reduce interference
Operating Requirements	
Suitable Calibration Standards Required Electrical Power – 120 VAC 50/60 hz	
Operating Gases	
Nitrogen or Helium	Zero grade
Air	Zero grade
Environmental	
Ambient Relative Humidity	0% - 95%
Operating Temperature	15 ˚C to 40 ˚C
GC Column	
Length	Standard 15 m
Temperature	Up to 200 ˚C
Column ramps	Two programmable ramps available
Outputs	
Printer Strip-chart recorder 3 1/2" floppy disk drive Three RS-232 serial communications ports RS-485 port for communications with MINICAMS "Smart" accessories	
Optional Accessories	
Stream Selection Systems Continuous Sampling System Low-Volume Sampler Lewisite Sampling Option	CHROM-LINK® Data Aquisition System CHROM-NET® Data Acquisition System Heated Sample Lines Preconcentrator Tubes

Contact OI/CMS for additional information:

O·I·Analytical
CMS Field Products

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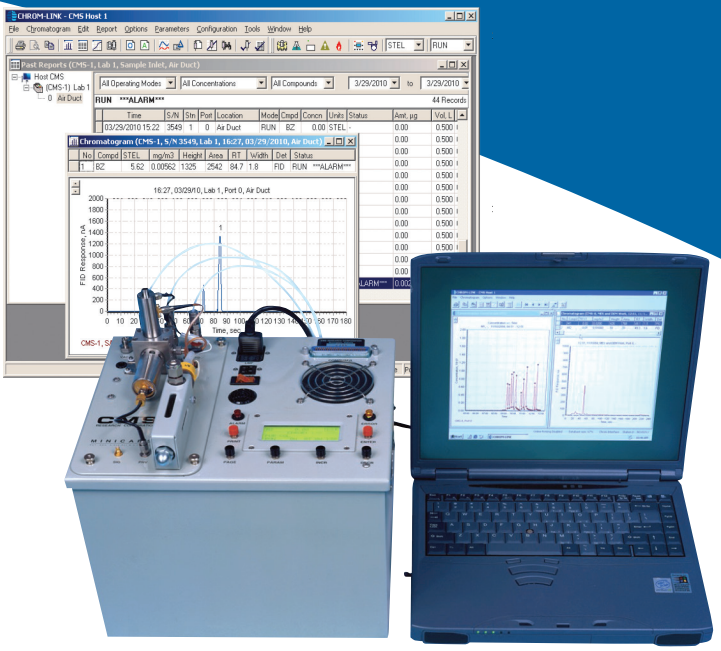
LAT Scientific Instruments

CHROM-LINK®

MONITORING DATA ACQUISITION SYSTEM

CHROM-LINK® is a complete instrument control and monitoring data acquisition system dedicated to a single MINICAMS® monitor. Operating under Windows®, CHROM-LINK collects all MINICAMS data, including concentration and status reports, chromatograms, calibrations, and operating conditions into a relational database. This allows for a wide variety of reports to produce a complete audit trail of chemical-monitoring activities and instrument performance. CHROM-LINK performs reliable backup and archiving of air-monitoring and chromatographic data automatically, either on a regularly scheduled basis or on demand.



MINICAMS® plus CHROM-LINK®

FEATURES

- Chromatogram collection
- Reporting and auditing capabilities
- Multi-level calibration and curve-fitting options
- Remote instrument control
- Library of established methods
- Monitoring setup and configuration
- Software package included on laptop platform
- Package includes Multi-Level Calibration, Analytical Methods Library, simulated LCD screen, and other MINICAMS control functions
- Compound history view allows tracking of MINICAMS performance over time, including detector sensitivity, calibration frequency, and analytical standard consistency
- Logged data is easily retrievable and can be copied to other applications
- Off-line review of archived data with optional CHROM-LINK View software
- Standard navigation tools allow easy transition from concentration report screen to corresponding chromatogram, operating parameters, or other data views
- Filtering features allow preparation of concise event reports

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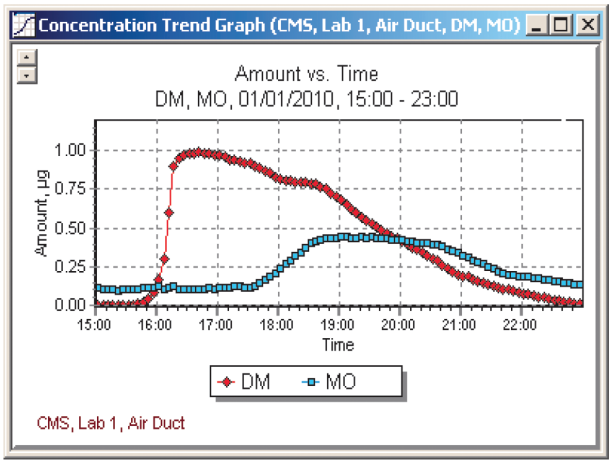
CHROM-LINK® SPECIFICATIONS

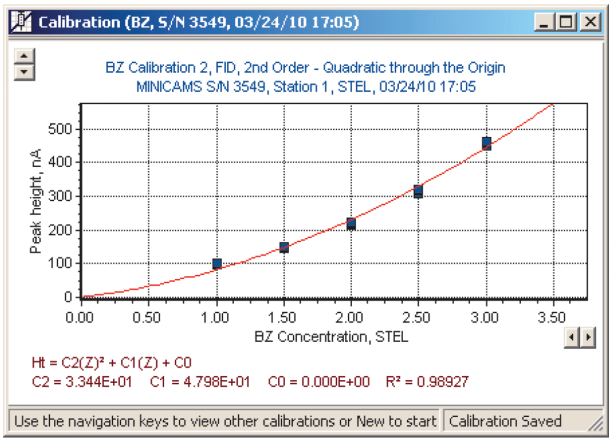
Concentration Trend Graph

- User-selected ranges
- Menu-selected options include:
  - Display data values
  - Add annotation to a movable annotation field
  - Modify scales
  - Select compounds to be displayed



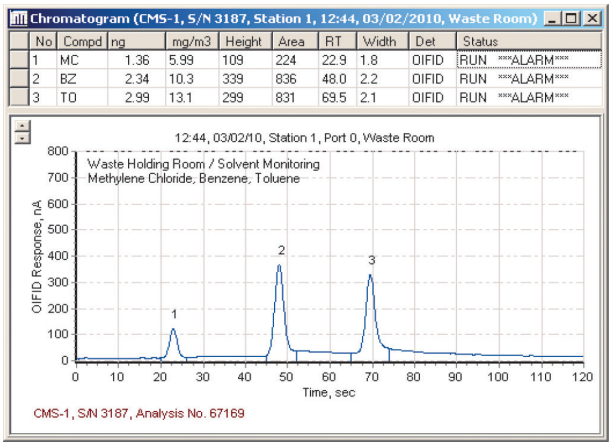
Calibration

- First-order, second-order, third-order, and power-fit calibration curves available
- Past calibrations retained in CHROM-LINK® database
- Calibration reports available for all calibrations



Chromatogram

- Chromatograms include concentration report information and can be navigated in chronological order



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