AeroLead® 3000

Multi-Metal Continuous Emissions Monitor

Lead, Cadmium, Copper,
Arsenic, Selenium, Mercury

Introduction:

The AeroLead® 3000 Analyzer automatically samples, extracts, and quantifies the concentration of total lead in air. Air samples can be automatically collected and analyzed between calibrations, with user-defined air sample times ranging from 10 minutes to 20 hours. Compliance with environmental and occupational regulations can be easily determined, with sample results available in 7 minutes. The total sampling and analysis cost using the AeroLead® 3000 is less than 1% of typical off-site laboratory analysis costs alone, providing a very short capital investment payback period.

Data from the AeroLead® 3000 Analyzer provides a defensible basis to validate compliance with occupational and environmental regulations, preventing unnecessary human and environmental exposure. In short, no one will have better, more timely data than the operator of the AeroLead®. The 7 minute sample turn-around provides rapid data to assist process operators in maintaining lead levels below action levels, and can provide a previously unavailable method to control fugitive emissions and employee exposure.

Workers of all skill levels can operate the AeroLead® 3000 Analyzer. The operation is simple (using the menu-driven keypad) and does not require specialized training, nuclear materials or operator certification. Data can be downloaded via USB or RS232C to an automated data acquisition system, a PC or laptop computer, making compilation and reporting of data quick, easy and efficient, resulting in much more effective utilization occupational safety and health resources. Comprehensive data analysis and regional environmental monitoring can be supported via VPN near-real-time data telemetry and Cloud-based Platforms.

For more information, or to inquire about other metals methods, please contact:

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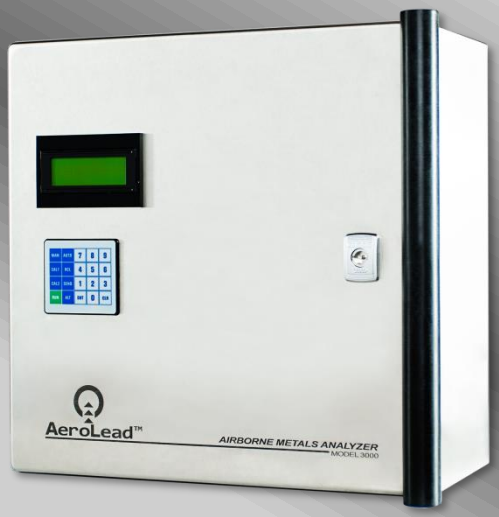

Description:

Air samples are automatically drawn or manually introduced through a proprietary sample filter/detector assembly. The airborne metals are then ultrasonically extracted and concentrated into a specially designed aqueous phase and analyzed voltammetrically. An integrated airflow meter is used to determine air sample volume and combined with the voltammetric data to yield accurate airborne lead concentration in ug total metal per cubic meter of air. The instrument then automatically cleans and resets for the next sample. Maintenance and operational requirements consist primarily of simple, periodic replacement of extraction syringes and sample filters, and less frequent replacement of electrodes. Data can be downloaded either manually on-command, or automatically via RS-232C, USB, or wireless data transmission protocols dependent upon user requirements.

Specifications:

- Automated or On-Demand Analysis
- Measurement Method Ultrasonic Extraction and Anodic Stripping Voltammetry
- Simple, menu-driven operation
- User-Selectable Measurement Range
  - Standard range 0.05 ug/m^3 to 1000 ug/m^3
- Automatic Baseline & Drift Correction
- Sample Flow Rate 1.2-6 L/min
- Detection Limit- User selectable
  - LoQ 0.05 ug/m^3 standard as shipped
- Linearity 0.05 to 100 ug/m^3
- Precision typically 4-8% rsd
- Ambient Air, PBZ and/or Emissions Monitoring
- Sample results in less than 10 minutes
- Total sampling and analysis costs less than $0.75 per sample
- Significantly lowers regulatory compliance costs compared to XRF or lab methods such as NIOSH 7082
- Autocalibration option available
- Embedded QA/QC protocols available
- Power Requirements 110 VAC/240 VAC/12 VDC
  - Input 12VDC, 2 Amp regulated or unregulated
  - Output: Digital Display, RS-232C, and USB
- Dimensions 16” W x 16” H x 9” D
- Weight 27-48 lb

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