AeroLead® 1200

Portable Automated Airborne Lead Analyzer

Introduction:

The AeroLead® 1200 Portable Analyzer automatically samples, extracts, and quantifies the concentration of total lead in air. Compliance with environmental and occupational health regulations can be easily determined, with sample results available in 7 minutes. The total sampling and analysis cost using the AeroLead® 1200 is less than 1% of typical sampling and off-site laboratory analysis costs, providing a very short capital investment payback period.

Data from the AeroLead® 1200 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 rapidly available data than the operator of the AeroLead®. The quick 7 minute sample turn-around provides the unique capability to rapidly screen an operational environment to determine locations and/or times when risk of excessive exposure to lead levels exists. This capability can be used to quantitatively determine the need for continuous monitoring as required by regulations such as the General Industry Standard for Lead (29CFR1910.1025) or local environmental requirements.

An autocalibration option is available, and full QA/QC support is available. Air sample times are input by the user according to individual requirements, and can range from 10 minutes to 24 hours. Data output are reported in ug/m^3 or ug/filter, dependent upon sample source (ambient air or personal breathing zone filter cartridge, respectively).

Data can be downloaded to PCs using the optional LeadReport™ software, which provides pre-formatted data reports as well as the ability to accumulate and manage data according to operator or regulatory requirements. Data acquisition can be performed either on-command or automatically, via RS-232C, USB, or wireless data transmission protocols. Cloud-based and VPN Platforms are available, designed to user requirements.

Operational 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 and regeneration modules.

Features & Specifications:

- Ambient Air Monitoring and Personal Filter Cartridge Analysis Capabilities
- Both Automated Continuous and On-Demand Analysis
- Simple, menu-driven operation
- Sample results in 7 minutes
- User-Selectable Measurement Range
  - Standard range 0.05 ug/m^3 to 500 ug/m^3
- Automatic Baseline & Drift Correction
- Sample Flow Rate 1.2-6 L/min
- Detection Limit- User selectable Detection Limit,
  - LoQ 0.05 ug/m^3 standard as shipped
- Linearity $\pm$3% at 10 ug/m^3
- Precision typically 4-8% rsd
- Interferences: below LDL, except thallium positive interference
- 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
- 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
- Weight 14 lb
- Dimensions 9” W x 11.5” H x 13” D

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

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