

CES

Xact™ 625 Multi-Metals Fence-Line Monitor (FLM)



Key Features

- Sensitive range: ng/m³ to mg/m³
- Can measure area and fugitive emissions
- Continuous, near-real time reporting
- Simultaneous measurement of up to 24 elements
- Non-destructive analysis allows for sample archiving
- 15 to 240 minute sampling/reporting times*
- Automatic quality assurance and control features

The Xact™ 625 is an automated multi-metals monitor based on reel-to-reel (RTR) filter tape sampling followed by nondestructive X-ray fluorescence (XRF) analysis of metals in the resulting PM deposit. In the 625, ambient air is sampled through a PM size-selective inlet and drawn through a filter tape. The resulting PM deposit is then automatically advanced and analyzed by XRF for selected metals while the next sample is being collected. In the Xact 625, sampling and analysis is performed continuously and simultaneously except for the time required to advance the tape (~20 sec) and the time required for daily automated quality assurance checks.

Highly-Sensitive, Continuous, Reliable, User Friendly, & Automated

The Xact 625 is capable of achieving ng/m³ detection limits using one hour sampling times. With the exception of its sister monitor, the Xact™ 620 AMM, the Xact 625 is the only viable metals monitor capable of reporting continuous, near real time metal concentrations near a facilities fence line. However, the instrument is not only for fence line applications. It is applicable for any ambient air monitoring in which increased particulate matter is common place or Cd, Pb and Fe are elements of interest.

The Xact 625 can be used with wind speed and direction along with pseudo-deterministic/receptor models to determine specific sources of fugitive emissions. This capability might be used to demonstrate compliance with metal emission limits for an entire facility providing timely feedback to plant management, which can be used to minimize emissions before they become a problem. In addition, with a mobile Xact 625, end-users also would have the ability to locate hazardous air pollutant "hot spots" around a facilities' perimeter.

Cooper Environmental Services LLC

10180 SW Nimbus Avenue Suite J6

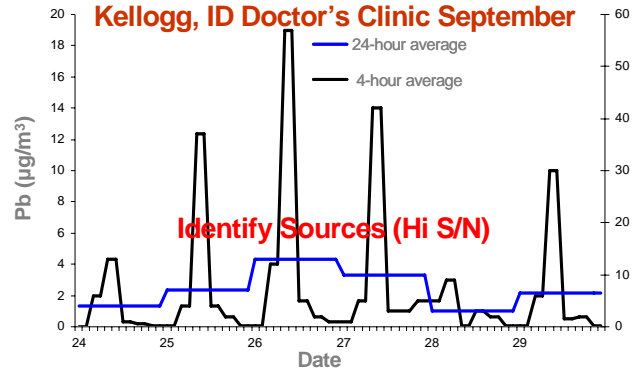
Portland, OR 97223

503-670-9215 Fax 503-624-2120

www.cooperenvironmental.com

Applications

Waste incinerators (hazardous, sewage, municipal, medical), cement kilns, lime kilns, foundries, metal smelters, solid hazardous waste disposal sites, dredging sites, remediation sites, landfills, mining sites, welding sites, etc.



Product Specifications

Measurement Method	Based on EPA Method IO 3.3 – Determination of Metals in Ambient PM using XRF
Key Applicable Elements	Sb, As, Ba, Br, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mn, Ni, Se, Ag, Sn, Ti, Tl, V, Zn and more
Measurement Range	0 to 10 mg/dscm
Detection Limits ¹ (IF, EPA IO 3.3)	As low as sub-ng/dscm with 60 minute sampling and analysis times
Sampling and Analysis Times	Selectable from 15 minutes to 240 minutes (*dependent on particulate matter concentrations)
Calibration Stability Check frequency	With each sample analyzed
Estimated Recalibration Frequency	About once per year when in a stable temperature environment ($\pm 3^{\circ}\text{C}$)
Upscale Drift, Zero Drift, & Flow Drift	Manual check required monthly
Sample Flow Rate	16.7 lpm
Linearity	Correlation coefficient greater than 0.98
Size and Weight	2' (W) x 2' (D) x 4' (H), 130 lbs, 483 mm rack mountable components
Operating Environment	Lab environment with temperature controlled to $20 \pm 3^{\circ}\text{C}$ (68°F)
Power Requirements ²	120 VAC/ 60 Hz, 20 amps, (240 VAC/60 Hz, 10 amps with an optional power converter)
Inputs/Outputs	24 VDC, 2 amperes; RS232 serial port, Modbus protocol, 38.4k Baud maximum, All metals data plus machine diagnostic data available.
Options	Remote polling, Change elements, optimization specific elements, Remote Control, and PM Inlets

Notes: 1. Detection limits are determined using 1 sigma interference free data
 2. Power must be condition to maintain a factory warrantee or service agreement.

