

E-BAM Particulate Monitor

The Met One E-BAM is a portable real-time beta attenuation monitoring system that is traceable to US-EPA requirements for continuous PM_{2.5} and PM₁₀ measurement.

The E-BAM has been designed to satisfy regulatory agencies and those from the health community by providing truly accurate, precise, real time measurement of fine particulate matter.

The E-BAM is designed for both continuous and semi-continuous operation. The E-BAM is ideally suited for air quality surveys, emergency response monitoring, as well as permanent monitoring applications.

Beta Attenuation Monitors (BAMs) are very easy to operate, and have become the preferred choice for measuring airborne particulate matter (PM). The BAM technique is insensitive to vibration, fluctuations in ambient temperature or humidity and it preserves the integrity of semi-volatile organic and inorganic matter.

Features:

- Accuracy and precision consistent with US-EPA requirements for PM_{2.5} Class III designation.
- Real-time outputs and user selectable measurement cycles.
- Consistent results regardless of seasonal or geographical factors.
- True ambient sampling assures measurement of volatile species.
- Rugged all-weather enclosure and tripod for quick deployment.
- On-board data-logger suitable for additional meteorological sensors.
- AC or DC operation, with available battery and solar panel options.



Applications:

- PM₁₀, PM_{2.5} and TSP Monitoring
- Emergency Response Monitoring
- Industrial Hygiene Surveys



Met One Instruments

Continuous Monitoring

The Met One E-BAM automates measurement by continuously sampling and reporting airborne particulate concentrations. The instrument provides users with minute-by-minute results, as well as hourly concentration values. The process of filter exposure, collection and weighing is eliminated.

Accuracy

Automated, reliable and repeatable measurement of ambient fine particulate matter has been the elusive goal of environmental regulators and health professionals for many years.

Met One beta attenuation monitors have time and again demonstrated excellent correlation to US-EPA reference methods during field evaluations.

The E-BAM operates under true ambient conditions, thus preserving the integrity of semi-volatile organic and inorganic matter.

Mobility

The E-BAM is contained within a robust, weatherproof housing. Additional outdoor enclosures are not required. Its tripod facilitates deployment to virtually any monitoring site. The instrument can be ready for measurement in less than 15 minutes. No other sampler currently on the market can match the accuracy, portability and flexibility of the E-BAM.

Set Up

The E-BAM provides an easy-to-use menu driven operator interface. Setup is facilitated with a series of prompts instructing the user on the sequence to begin measurement. Continuous self-diagnostics identify the need for corrective action.

Particle Size Selection

Size selective measurements are made using a variety of sample inlets. The Met One E-BAM may be configured for the measurement of TSP, PM₁₀, PM_{2.5} and PM₁.

The E-BAM includes an automated volumetric flow control system to assure flow dependent cut points are maintained.

Construction

The standard E-BAM system consists of a self-contained, corrosion-resistant enclosure complete with a rugged mounting tripod. The housing includes weatherproof bulkhead connectors for signal and power cables.

Direct Field Reporting

The E-BAM simplifies the collection of real-time and historical data from a monitoring site. Communication options include line and cellular modems, as well as radio and satellite transmitters.

Digital, Analog, Alarm Outputs

The E-BAM provides users with a host of data retrieval options. Measured values, averaged results and instrument status are available from discrete analog and digital outputs, or via serial communication ports. The instrument is capable of integration with modems, printers, and external data acquisition systems.

Logging and Reporting

The E-BAM includes an on-board data logger. Particulate concentration and volumetric flow results are automatically recorded. Six (6) additional channels are available for external sensors.

The internal data logger can store over 200 days worth of hourly averages.

Easy to Operate

E-BAM is factory programmed to operate at all times, except during calibration procedures. Current data, historical results, and status information are available without interrupting normal E-BAM operation.

Specifications

Range:	User Selectable (10 mg/m ³ maximum)
Accuracy:	2.5 µg (24 hours)
Cycle Time:	User Specified
Flow Rate:	0 - 20 lpm (User Selectable)
Outputs:	0 -1V or 0 -10V RS232
Alarm Relays:	2A / 240VAC
Filter Tape:	Continuous Glass Fiber
Beta Source:	C14 (< 75 µCi)
Power:	12 Volts
Ambient:	-30° to + 40° C

Available Accessories

- TSP Sampling Inlet
- PM₁₀ Sampling Inlet
- PM_{2.5} Sharp Cut Cyclone
- PM₁ Sharp Cut Cyclone
- Wind Speed and Direction Sensor
- Temperature and Humidity Sensor
- External Sample Pump
- Line Modem
- Cellular Modem
- GOES Transmission System
- Data Transfer Module



Represented by:

AKRULOGIC

Toronto, Ontario

Tel: 416-696-5576

Fax: 416-696-7988

E-Mail: info@akrulogic.com

Website: www.akrulogic.com
