

E-BAM Plus Portable Beta Gauge

The Met One E-BAM Plus has been built to satisfy users, regulators and those from the health community by providing truly accurate, precise, real time measurement of fine particulate matter automatically. In addition, it is rugged, portable, and deployable in 15 minutes.

The E-BAM Plus Offers the Following Advanced Features:

- Accuracy and precision approval with U.S. EPA requirements for PM₁₀ measurement.
- Real-time, accurate results without correction factors, regardless of season or geographic location.
- True ambient sampling provides accurate measurement of semi-volatile nitrates and organic compounds.
- Lightweight, rugged construction is easily mounted on a tripod in minutes.
- All-weather construction allows for true ambient sampling.
- Operates on AC power.

E-Bam Plus is a Complete Measurement System That Comes With the Following Standard Components:

- Internal Data-logger
- External AC Vacuum Pump Standard
- Real-Time Concentration
- PM₁₀ Inlet
- Aluminum Tripod
- Temp/RH/Pressure Sensor
- Volumetric Flow Control
- Weatherproof Enclosure
- Filter Temperature Sensor
- Filter RH Sensor
- Filter Pressure Sensor
- Calibration Membrane



The Met One E-BAM Plus is a Portable, Real-time Beta Gauge which is comparable to U.S. EPA Methods for PM₁₀ Particulate Measurements.



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| Measurement Principle | Particulate Concentration by Beta Attenuation |
| U.S. EPA Designations Measurement | Designation Number: EQPM-1215-226 |
| Range | -15 $\mu\text{g}/\text{m}^3$ – 10,000 $\mu\text{g}/\text{m}^3$ |
| Measurement Resolution Sensitivity | 1.0 $\mu\text{g}/\text{m}^3$ |
| Standard Deviation Lower Detection Limit† | (σ) (1 hour) Less than 3.0 $\mu\text{g}/\text{m}^3$ (2 σ) (1 hour) Less than 6 $\mu\text{g}/\text{m}^3$ (2 σ) (24 hour) Less than 1.2 $\mu\text{g}/\text{m}^3$ |
| Measurement Sample Time | 1 Hour |
| Flow Rate | 16.7 L/min inlet flow rate; actual volumetric flow |
| Filter Tape | Continuous glass fiber filter; 30 mm x 21 m roll; > 60 days/roll |
| Span Check | Manual, 800ug (typical), span foil included. |
| Beta Source | C-14 (carbon-14); 60 μCi \pm 15 μCi (< 2.22 X 10 ⁶ Beq); Half-Life 5730 years |
| Beta Detector Type | Photomultiplier tube with organic plastic scintillator |
| Operating Temperature Range | -25° to +50°C. |
| Operating Humidity Range | 0 – 90% RH, noncondensing |
| Inlet Humidity Control | Actively controlled inlet heater module |
| User Interface | 4.3" graphical touch screen |
| Ambient Sensor | Model 597A combination AT, RH, and BP serial sensor AT: -50° to +70°C; RH: 0 to 98%; BP: 375 to 825 mmHg |
| Analog Outputs | 2 Channels; optically Isolated; Voltage Range 0-1, 0-2.5 or 0-5 VDC, Current Ranges 4-20 MA |
| 7500 Digital Serial Interface | 2 channels, half duplex RS-485 |
| Serial Interface | 1 channel; full duplex RS-232, USB (Shared common serial output) 1 channel; half duplex RS-485, Baud rates 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200 |
| Internal Data Storage | 8 Days 1-minute average, 1.3 years 60-minute average |
| External Data Storage | 1 USB Flash drive device |
| Compatible Software Power | Air Plus 5, Comet™, HyperTerminal® |
| Supply | AC Version: 100 - 230 VAC; 50/60 Hz; 150W, 3A @ 115 VAC/ 2A @ 230 VAC |
| Weight | 75 lbs. (34.1 kg) |
| Dimensions (Without Tripod) | Height: 18 in (46 cm) Width: 16 in (41 cm) Depth: 12 in (31 cm) |

Standard Accessories

- BX-802 PM₁₀ Inlet EPA Spec.
- EX-597 Ambient RH Pressure Sensor
- 460180 Filter Tape, Roll
- COMET Software
- External Pump 115 or 230 VAC Option (Specify Medo or Gast)

Specifications are subject to change at any time.

Optional Accessories

- BX-302 Zero Calibration Kit
- BX-307 Flow Calibrator
- BX-807 PM2.5 Sharp-Cut Cyclone
- BX-803 TSP Inlet
- EX-MSO Wind Speed and Direction Sensor
- EX-AIO 2 Sonic Wind Speed and Direction Sensor

