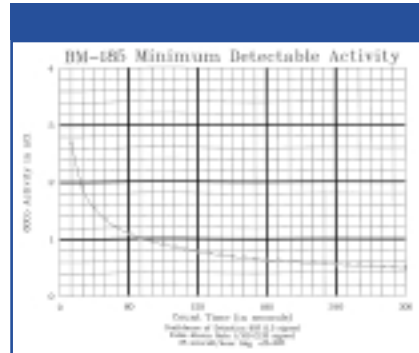


# Waste Monitors

## ▼ **BM-185** One ft<sup>3</sup> box gamma monitor



### Model BM-185 SPECIFICATIONS

- **SENSITIVITY:** (see graph)
- **DETECTORS:** Six 12" x 12" x 1.5" (30 x 30 x 3.75cm) plastic scintillator detectors provide 1,296 in<sup>3</sup> (21 liters) of detector volume per system. Gamma energy range is 30 keV to 2 MeV.
- **POWER REQUIREMENTS:** 115/230 Vac, 47 - 63 Hz, < 500 VA
- **DISPLAY:** 640 x 480 color VGA flat panel
- **DIMENSIONS:**
  - Overall Dimensions: 47.5" h x 32" w x 28.5" d (120 x 80 x 72cm)
  - Chamber Dimensions: 12" h x 12" w x 12" d (30 x 30 x 30cm)
  - Volume: ≈1 ft<sup>3</sup> (28 liters)
- **WEIGHT:** ≈1,800 lb (820kg)
- **ENVIRONMENTAL:** 32° to 100°F (0° to 38°C)
- **OPTIONAL COMPONENTS:** Stainless steel liner, Casters

### Box Monitor Model BM-185

• **DESCRIPTION:** Designed to scan small items for radioactive contamination, the BM-185 provides 4 $\pi$  geometry and efficiency of > 35% for <sup>60</sup>Co.

Operation is made simple by using a computer keyboard for system control and a color monitor with an easy-to-read graphics display to provide instant reporting of system status and operating mode. Operator menus and error messages are clearly displayed.

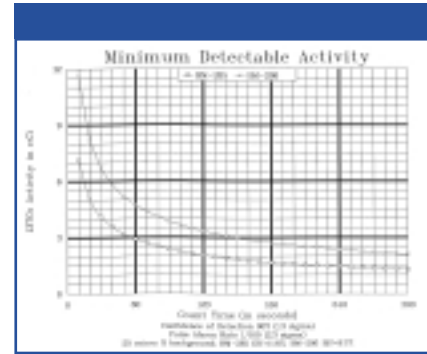
From the keyboard, the system administrator can change all of the operating parameters. System operation and parameters are password protected with separate access levels. Report generation is automatic and continuous; reports may be printed at any time.

Up to twenty different sets of operating parameters for different waste streams may be stored on disk. The operator selects the proper waste stream from an annotated list for each item to be scanned.

Beyond standard equipment, the BM-185 offers users flexibility. For example, the system can be equipped with an internal scale to permit specific activity measurements. The disposable PVC liner provides minimum attenuation, while the optional stainless steel liner provides durability. In either case, the BM-185's electronics are conveniently mounted above the chamber to allow easy access for calibration and repair.

• **APPLICATIONS:** Ideal for monitoring small items prior to release, the BM-185 provides accurate go/no go analysis with typical scan times of one to three minutes.

# Waste Monitors



## Model BM-285 and BM-286 SPECIFICATIONS

- **SENSITIVITY:** (see graph)
- **DETECTORS:**
  - BM-285: Two 12" x 19" x 1.5" (30 x 47.5 x 3.75cm), plus four 12" x 25" x 1.5" (30 x 62.5 x 3.75cm) plastic scintillator detectors provide 2,484 in<sup>3</sup> (41 liters) of detector volume per system. Gamma energy range of 40 keV - 1.6 MeV, can be limited with discriminators. Detectors are fully shielded by a minimum of 1.75" (4.4cm) of lead.
  - BM-286: Two 12" x 24" x 1.5" (30 x 60 x 3.75cm), plus four 12" x 36" x 1.5" (30 x 60 x 3.75cm) plastic scintillator detectors provide 3,456 in<sup>3</sup> (57 liters) of detector volume per system. Gamma energy range of 40 keV - 1.6 MeV, can be limited with discriminators. Detectors are fully shielded by a minimum of 1.75" (4.4cm) of lead.
- **POWER REQUIREMENTS:** 115/230 Vac, 47 - 63 Hz, 400 VA
- **DISPLAY:** 640 x 480 color VGA flat panel
- **DIMENSIONS:**
  - Overall Dimensions:
  - BM-285: 57" h x 44" w x 40" d (143 x 110 x 100cm)
  - BM-286: 69" h x 44" w x 44" d (173 x 110 x 110cm)
  - Chamber Dimensions:
  - BM-285: 29" h x 24" w x 27" d (73 x 60 x 68cm) Volume: ≈10 ft<sup>3</sup> (300 liters)
  - BM-286: 45" h x 28" w x 28" d (113 x 70 x 70cm) Volume: ≈14 ft<sup>3</sup> (570 liters)
- **WEIGHT:**
  - BM-285: ≈10,000 lb (4,400kg)
  - BM-286: ≈12,000 lb (5,448kg)
- **ENVIRONMENTAL:** 32° to 100°F (0° to 38°C)
- **OPTIONAL COMPONENTS:** Printer, NaI(Tl) detector and 1,024 channel MCA for spectral isotopic identification

## Bag/Barrel Monitors Models BM-285 and BM-286

• **DESCRIPTION:** The BM-285 Bag Monitor and the BM-286 Barrel Monitor are trouble-free instruments designed to measure gamma contamination of containerized material. The BM-285 can accommodate containers of up to 500 lbs., while the BM-286 is designed to hold 55 gallon drums weighing up to 1,000 lbs.

A stainless steel liner protects the detectors from the articles being monitored. The load platform, containing the weight monitoring load cells, is mounted on sliding runners to facilitate loading heavy samples. Plastic scintillation detectors are mounted on all six sides of the counting chamber to provide uniform measurement throughout the chamber.

Isotopic identification is possible with an optional sodium iodide detector, multi-channel analyzer and applicable software.

• **APPLICATIONS:** The capacity of the units permits monitoring large amounts of material in a minimum number of operations. The monitors' high sensitivity is achieved by using large surface area plastic detectors coupled with state-of-the-art microprocessor-controlled electronics and sophisticated software algorithms.

Operation is made simple by using a computer keyboard for system control and a color monitor with an easy-to-read graphics display to provide instant reporting of system status and operating mode. Operator menus and error messages are clearly displayed.

From the keyboard, the system administrator can change all of the operating parameters. System operation and parameters are password protected with separate access levels. Report generation is automatic and continuous; reports may be printed at any time.

Up to twenty different sets of operating parameters for different waste streams may be stored on disk. The operator selects the proper waste stream from an annotated list for each item to be scanned.

