

The ASM Vehicle Monitoring Systems are designed to provide the ultimate sensitivity for vehicle scanning in industrial applications.

ASM/III

Model 3000E, 4500E and 6000V
Vehicle Monitoring Systems



ASM-6000V/III



ASM-4500E/III



ASM-3000E/III

- Graphic display
- Language options
- User configurable alarm messages
- Simple to operate and maintain
- Built-in printer
- Modem included



The ASM/III vehicle monitoring systems are designed to utilize industry-proven detector designs, state-of-the-art Reality-Based Detection algorithms, and advanced, low-noise electronics technology. This combination provides the perfect solution for vehicle monitoring applications, requiring the lowest possible alarm thresholds. The ASM/III vehicle monitoring systems offer unparalleled sensitivity and reliability.

Detector configurations that provide both vertical coverage of the vehicle (detector height) as well as dwell-time (detector width) have been the cornerstone of ASM detector designs since 1987. These large-area plastic scintillation detectors are shock-mounted and housed in lead-lined, NEMA rated stainless steel detector

enclosures, and are proven to withstand the rigors of industrial vehicle monitoring applications in the harshest environments.

Data analysis and management is processed by the ASM/III System Control Unit, and is available in two configurations; a wall mountable unit, incorporating an industrial grade PC with touch-screen graphic display or a desktop pod operated with a commercially available PC. Designed to be operated with little or no operator intervention, the ASM/III SCU features simple, one-button response to alarm conditions, while providing detailed scan and alarm data at the request of the operator. A color graphic display allows the viewing of detector data, alarm history and location of the detected source in the vehicle.

ASM Specifications

DETECTOR ASSEMBLIES

- ASM3000E - 2 detector modules
- ASM4500E - 3 detector modules
- ASM6000V - 4 detector modules

Detector material:

- Premium plastic scintillator

Radiations detected:

- Low, medium and high energy gamma emitters, for example, ²⁴¹Am, ⁶⁰Co, ¹³⁷Cs, ¹⁹²Ir, ²²⁶Ra/Th, also neutrons

Detection volume:

- Over 23 l (1400 in³) per detector module

Detection surface area:

- Over 0.45 m² (700 in²) per detector module

Vehicle separation:

- 4.8 m (16') or less for optimum performance, (4.25 m (14') recommended)

Electronics:

- Remote single channel, RS485 controlled, intelligent high-voltage/ bias/ amp. digitizer electronics

Vehicle speed sensors:

- Heavy duty industrial grade photobeams with cowling for weather and damage protection

Cable & Communication:

- Remote controlled data transmission through 2 independently shielded 20 AWG twisted pair cables.

Housing:

- Lead lined, stainless steel, weatherproof (NEMA rated) with gasketed, hinged, coated aluminum access door

Temperature ranges:

- -40 °C to +50 °C (-40 °F to 122 °F)

Relative Humidity:

- 10 to 95% RH

Dimensions:

- 183 H x 45 W x 30 D cm (72" H x 18" W x 12" D)

Weight:

- 181 kg (400 lb) per assembly

Installation:

- Mounting hole pattern for installation on client-provided I-beams

CONTROL UNIT

Sensitivity:

- Maximum sensitivity is set automatically. Radiation increases equivalent to 8 - 10% of background are detectable

Vehicle speed:

- Up to 5 mph (8 kph) with audible and visual alarms if the limit is exceeded.

Indicator lights:

- Panel Lights: ready (green), wait (amber), alarm (red)

Illuminated controls:

- alarm override (amber),
- toggle display (green),
- alarm acknowledge (red)

Simple operator control:

- A single push-button illuminates when a radiation alarm occurs.
- Pressing the push-button silences the alarm and resets the system

Background compensation:

- Automatic

Phone modem:

- Telephone link to easy maintenance teleservicing network

Other controls:

- Power ON/OFF; keyboard provided for system setup, (password protection, self-test & maintenance) but not required for day-to-day operation.

Self-diagnostics:

- Detector operation, wiring integrity and photocell alignment are monitored by internal self-tests. For added reliability, separate hardware monitors the microprocessor

Mountings:

- Wall-mounting is standard, other styles are optional

Temperature range:

- 4 °C to 35 °C (40 °F to 95 °F)

Relative humidity:

- 10% to 75%

Dimensions of wall-mounted control unit:

- 600 H x 380 W x 204 D mm (24" H x 15" W x 8" D)

Power:

- 117 VAC, 60 Hz or 220 VAC, 50 Hz

Cable:

- NEMA 15-5 3 terminal plug on 2 m (6') lead

System shipping weight:

- ASM 3000: 455 kg (1000 lb)
- ASM 4500: 682 kg (1500 lb)
- ASM 6000V: 864 kg (1900 lb)

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