PORTABLE VEHICLE TRANSIT MONITOR

Model # PVM-TA
Model # PVM-TB
Model # PVM-L/O

FEATURES:

- COMPLETELY PORTABLE
- OPERATES ON RECHARGEABLE BATTERIES or AC
- CAN ALARM AT 7 μR/hr RISE WITHIN 1 SECOND (TA)
- SEES AND CAN ALARM AT 1 μR/hr ABOVE BACKGROUND (TB)
- COMPLETELY WEATHER PROOF
- HIGH SENSITIVITY DETECTORS (PLASTIC SCINTILLATORS 792 in³ EACH)
- DYNAMIC BACKGROUND SUBTRACT
- FAST RATE OF CHANGE DESIGN
- CONTINUOUS OPERATION: “SET AND FORGET”

DESCRIPTION: Portable control / alarm module plus two portable weather proof detectors each with Plastic Scintillators 792 in³/detector. Rate of change electronics with audio and visual alarms. Operates on built-in rechargeable batteries or 110/220 AC. Operation for rugged outdoor use as well as indoors. Model PVM-TA is a high sensitivity Gamma Monitoring system for determining possible radiation contamination in containers or vehicles on a non-pause basis. Since the operation of this instrument is based on rate of change in radiation, it will reliably pick up contamination as it passes near the monitor. Model PVM-TB achieves greater sensitivity by stop and count approach. This system can be set-up at the road side or in a parking lot. It can be mounted to a fence post or at a loading dock or at a roadway station. Background is continually updated and subtracted thus giving net vehicle reading.
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SPECIFICATIONS:

Detectors: 2 ea. 12” x 1.5” x 44” premium Plastic Scintillators.
Area: 792 in³ per detector.*

Range: 1 μR/hr to 1 mR/hr.

Power Requirements: Operates on a built in rechargeable batteries or 110/220 AC.

Power Recharge Cable: 6 ft. cable furnished. Three Prong grounded connector.

High Level Alarm: Flashing red light and intermittent 2900 Hz tone. (90 dB)

Alarm Set:
- PVM-TA internal factory set at .007 mR/hr rise per second. May be reset by user.
- PVM-TB internal factory set at 10% above ambient background. May be reset by user.
- PVM-L/O internal factory set at 2 Times Background - user settable 0 to 150% full scale.


Alarm Indicators: Ready - OK- High Alarm.

Count Time: 1 to 20 seconds (PVM-TB only).

Energy Range:
- Gamma: 40 KeV to 6 MeV.
- Beta: above 1 MeV, includes P³², Sr⁹₀, Y⁹₀, & N¹⁶.

Communications: Built-in serial port and Ethernet Node.

Dimensions:
- Control Box: 16” x 20” x 10” plus alarm Beacon.
- Detectors 54” H x 15.5” W x 7” D.

Shipping Weight: 240 lbs. (for 2 detector units.)

Carrying Weight:
- Control Box: 18 lbs.
- Each Detector: 95 lbs. (Wheels & Handles are Built-in.)

OPTIONAL ACCESSORIES:

Check Source: RAU-BGX, uranium source; license exempt.

Additional Relay: 5A SPDT to operate other circuits.


*Options:
- 220 V, 50-60 Hz.
- 7-day Battery Back-up.
- Additional detectors.
- Alternate detectors other size plastic scintillators, NaI(Tl) Scintillators, or BGO crystal.
- Specific detectors eg for plutonium or Neutron emitters or Beta emitters.
- Photo cell vehicle sensors(s) to initiate count or to measure vehicle speed.
- Wire-less operation.
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PORTABILITY:

- Battery Operation.
- Each element is housed in weather proof high impact plastic case with sturdy carrying handles.
- Detectors are shipped with built in deployment stand (Model DS-4).
- Detectors have built-in wheels and industrial grade, easy to use, reusable straps.

PVM-L/O uses the same detectors as the other PVM models, but has simplified LAM-10L “Alarming Ratemeter” electronics, instead of “Rate of Charge” electronics.

Available as a Fixed Unit (Model # VMF-TA), in a Metal Housing.

TECHNICAL ASSOCIATES
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