Model 52-1-1W
Personnel Gamma Portal Monitor

Features

- Sets Up in Minutes
- Easy to Transport & Operate
- 4 Plastic Scintillator Side Detectors
- Angled Display for Ease of Use
- Detector LEDs Indicate Alarm Location
- 81 cm (32 in.) Wide Opening
- Meets FEMA-REP-21
- Water-Resistant

Operation and display panel

Introduction

The Model 52-1-1W Portal Monitor is the water-resistant version of the Model 52-1-1 Portal Monitor, used for gamma contamination monitoring of personnel. It meets the FEMA standard for Emergency Response Portal Monitoring (FEMA-REP-21) and has an Ingress Protection (IP) rating of 53. It is designed to be set up in five minutes or less without tools and then easily disassembled for convenient transportation and storage in the included wheeled, lockable transport/storage case.

This portal monitor can be operated in a walk-through basis with a quick scan occurring while a person is positioned within the portal. The non-volatile parameters are preset at the factory to detect a 1.0 µCi ^{137}Cs source in a 10 µR/hr background field, in accordance with the FEMA standard. Microprocessor-based electronics ensure ease of setup and reliability. Daylight-visible status LEDs indicate count-cycle status. Loud audible signals that may be adjusted or turned off by the operator accompany the LEDs for additional indication. Flexible options for powering the device make it a versatile and portable for many situations. See details below.

Specifications

Part Number: 48-3516

SENSITIVITY: This instrument will detect the gamma emissions from a 1.0 µCi ^{137}Cs source when it is located at mid-frame of the portal monitor in a 10 µR/hr background (per the suggested standard in FEMA report "Contamination Monitoring Standard for a Portal Monitor Used for Emergency Response," Sept. 1992).

DISPLAY (Setup): 2-line by 20-character LCD shows background rates from all detectors and sigma values above background, display is backlit when operated from AC power

DISPLAY (User): five large status LEDs on one side of portal, and detector LEDs to show alarm location

COUNT TIME: adjustable from 0 to 20 seconds ("0" setting is for walk-through mode)

LED INDICATORS:
- ENTER/CHECKING: Green LED, indicates system is ready for use, flashing LED indicates a count is in progress
- INCOMPLETE/UPDATING: Amber LED, indicates the user has vacated the portal before counting was completed or that an update is in progress
- ALARM: indicated by red LED and user-adjustable audible signal (greater than 60 dB at 61 cm [24 in.])
- FAILURE: Red LED, indicates a high or low background

INFRARED SENSOR: senses portal occupancy

PARAMETERS: all parameters are stored in non-volatile memory

DETECTORS: 4 ea. 2.75 L (168 in³) of plastic scintillators (total 11 L [672 in³])

OUTPUT: RS-232 and relay output connectors located on the bottom of the electronics chassis

TEMPERATURE RANGE: -20 to 50 °C (-4 to 122 °F)

ENVIRONMENTAL RATING: IP rating of 53

CONSTRUCTION: aluminum housing with beige powder coat

PORTAL DIMENSIONS: 211 x 102 x 45 cm (83 x 40 x 17.5 in.) (H x W x L)

PORTAL INSIDE DIMENSIONS: 206 x 81 cm (81 x 32 in.) (H x W)

WEIGHT: 32 kg (70 lb), approximately 45 kg (100 lb) in case

POWER OPTIONS
- 85 to 250 Vac 50/60 Hz using supplied power supply (12 Vdc wall adapter)
- Supplied 12 Vdc cigarette lighter adapter cable
- 3 or 6 "D" cell batteries. Battery life: typically 69 hours for six batteries or 28 hours for three batteries

TRANSPORT/STORAGE CASE DIMENSIONS: 122 x 61 x 30.5 cm (48 x 24 x 12 in.) (H x W x D)

OPTIONAL VEHICLE MONITOR CONVERSION KIT FOR MODEL 52-1 SERIES: enables the user to reconfigure the Model 52-1 Series personnel portal monitor to a vehicle monitor. Includes stands and cable, monitor available separately. Part Number 4215-1099

Right: Shown configured as vehicle monitor using optional conversion kit P/N 4215-1099

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Note: specifications subject to change without notification. We are not responsible for errors or omissions.