Model 2241-3RK2

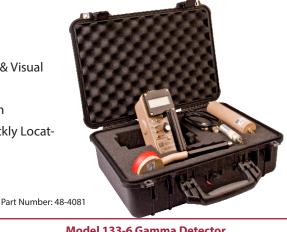
Emergency Response Kit



-udlum Measurements, Inc

Features

- · Ready-to-Go Kit Packaged in Rugged Case
- Digital Ratemeter/Scaler with Adjustable Audible & Visual Alarms
- Measures Alpha, Beta, and Gamma Contamination
- · Includes a High-Sensitivity Gamma Probe for Quickly Locating Sources of Radiation
- · Convenient In-Field Detector Switching



Introduction

The 2241-3RK Emergency Response Kit promotes a rapid response to a radiological emergency by packaging all of the basic radiation measurement tools you're likely to need into a rugged storage and transport case. This kit will easily meet the radiation requirements of an emergency response plan. It includes a digital, auto-ranging ratemeter/scaler that stores 4 parameter setups for quick changes of detectors in the field. The 1 µCi ¹³⁷Cs check source with mountable holder ensures instruments are functioning properly. Response Kit components are securely stored and easily transported in the padlockable, air- and watertight corrosion-proof case. Foam padding with custom cutouts for the instruments is included.

Model 2241-3 Survey Meter

SUGGESTED DETECTORS: GM, proportional, scintillation **METER:** microprocessor-based digital ratemeter and scaler DISPLAY: 4-digit (6 in scaler mode) LCD with 1.3 cm (0.5 in.) high digits, moving decimal point, separate annunciators for display units, alert, alarm, low battery, counting overflow, and scaler counting

DISPLAY RANGE: autoranging from 0.0 μR/hr-9999 R/hr; 0.000 μSv/h-9999 Sv/h; 0 cpm-999 kcpm; or 0 cps-100 kcps

FRONT PANEL: Audio On/Off, Fast/Slow, Sca/Rate, Backlight, Reset, HV, Detector Selector (Det1, Det2, Det3, Det4), On/Off

OFF/DET1/DET2/DET3/DET4: 5-position swith rotary switch selects one of four sets of detector parameters and applies power SCA/RATE MODE: locking switch toggles between ratemeter and scaler counting modes.

AUD ON/OFF: silences or enables click-per-event audio (audible alarm is independent function and will override the switch)

F/S (FAST/SLOW) RESPONSE: selects desired response time VARIABLE/FIXED RESPONSE: selects desired time constant **CALIBRATION CONTROLS:** under protective cover on front

LINEARITY: reading within 10% of true value

RS-232 PORT: allows user to set up to four different detector parameters using computer, and enables data dump

POWER: 2 ea. "D" cell batteries housed in sealed compartment that is externally accessible

BATTERY LIFE: typically 200 hours with alkaline batteries (low

battery warning on LCD)

TEMPERATURE RANGE: -20 to 50 °C (-4 to 122 °F) **SIZE:** 16.5 x 8.9 x 21.6 cm (6.5 x 3.5 x 8.5 in.) (H x W x L)

WEIGHT: 1.6 kg (3.5 lb) with batteries

Model 133-6 Gamma Detector

DETECTOR: energy-compensated GM, 30 mg/cm² stainless steel (halogen quench)

LINEAR RANGE with SCC: 40 μ Sv/h to 10 Sv/h (4 mR/hr to 1000

SENSITIVITY: 1.8 cpm/µSv/h (18 cpm/mR/hr) (137Cs gamma)

BACKGROUND: 1 cpm or less

ENERGY RESPONSE: within 15% of true value (60 keV to 3 MeV)

DEAD TIME: typically 50 microseconds

PHYSICAL: 2.3 x 10.2 cm (0.9 x 4.0 in.); 0.090 kg (0.20 lb)

Model 44-9 Alpha/Beta/Gamma Detector

INDICATED USE: alpha, beta, gamma survey; sample counting

DETECTOR: pancake-type, halogen-guenched GM

WINDOW: $1.7 + 0.3 \text{ mg/cm}^2 \text{ mica}$, $15 \text{ cm}^2 (2.3 \text{ in}^2) \text{ active}$, $12 \text{ cm}^2 (1.9 \text{ ms}^2)$ in2) open

EFFICIENCY (4 π): 5% for ¹⁴C; 22% for ⁹⁰Sr/⁹⁰Y; 19% for ⁹⁹Tc; < 1% for ^{99m}Tc, 32%-³²P; 1% for ²³⁹Pu

SENSITIVITY (137Cs gamma): 3300 cpm/mR/hr **ENERGY RESPONSE**: energy dependent

BACKGROUND: 60 cpm **DEAD TIME**: 80 microseconds **OPERATING VOLTAGE: 900 Vdc**

SIZE: 4.6 x 6.9 x 27.2 cm (1.8 x 2.7 x 10.7 in.) (H x W x L)

Model 44-2 Gamma Detector

DETECTOR: scintillator, 2.5 x 2.5 cm (1 x 1 in.) (Dia x L) Nal(Tl)

SENSITIVITY: typically 175 cpm/µR/hr (137Cs gamma)

BACKGROUND: 1900 cpm

RECOMMENDED ENERGY RANGE: 50 KeV to 1.5 MeV

ENERGY RESPONSE: energy dependent

PHOTOMULTIPLIER TUBE: 2.86 cm (1.12 in.) diameter

OPERATING VOLTAGE: 500 to 1200 volts

CONNECTOR: series "C"

TEMPERATURE RANGE: -15 to 50 °C (5 to 122 °F)

SIZE: 5.1 x 18.5 cm (2 x 7.3 in.) (Dia x L)

Included Items

Check Source Holder, 1 µCi (137Cs) Check Source, Carrying Case, Cable, Batteries, Foam Padding

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