

LUDDLUM MODEL 14C

SURVEY METER WITH PANCAKE GM PROBE

Satisfies NRC requirements for Nuclear Medicine departments

Our most frequently ordered survey instrument for nuclear medicine applications, the portable Model 14C Survey Meter with Pancake GM Probe meets the essential monitoring and surveying needs of most Nuclear Medicine facilities. The external pancake probe is used to check hands, clothing, floors, furniture, equipment, and packages for contamination and background readings. For beta-emitters, the pancake probe has approximately twice the counting efficiency of an end-window detector. For high-range gamma detection, the built-in energy-compensated GM detector with the x1000 multiplier range handles counts up to 2R/hr. The meter features a built-in speaker with ON/OFF switch, front-access calibration controls, push-button reset to zero the meter, and a toggle switch to select FAST (4 sec.) or SLOW (22 sec.) response.

SPECIFICATIONS:

Survey Meter:

Compatible Detectors: GM, Scintillation

Meter Face: 0-2 mR/hr, 0-6.6k cpm, battery test

Threshold: 30 mV \pm 10 mV

Multiplier Ranges: x0.1; x1; x10; x100 for external detector; x1000 for internal detector

Internal Detector: Energy-compensated GM, for high range gamma detection only; 2000 mR/hr

High Voltage: 900V

Response: Toggle switch for FAST (4 seconds) or SLOW (22 seconds) for 90% of final reading

Reset: Push button to zero meter after over-range exposure

Audio: Built-in unimorph speaker with ON/OFF switch

Sensitivity: 2100 cpm/mR/hr for Cs-137

Batteries: 2 each, size "D", typical life 600 hours

Construction: Painted aluminum housing

Dimensions: 3.5" w x 6.5" h x 8.5" l (9 x 16.5 x 22cm)

Weight: 3.5 lb (1.6 kg) including batteries

Pancake GM Probe:

Indicated Use: Alpha, beta, and gamma surveying; sample counting

Detector: Pancake-type halogen quenched GM

Window: 1.7 \pm 0.3 mg/cm² mica

Window Area: 15.5 cm² active, 12cm² open

Efficiency (4pi): 5% for C-14, 22% for Sr-90 and Y-90, 19% for Tc-99 32% for Pu-32, 15% for Pu-239

Gamma Sensitivity: 3300 cpm/mR/hr for Cs-137

Energy Response: Energy dependent

Operating Voltage: 900 volts

Protective Screen: 79% open, stainless steel

Housing: Painted aluminum

Dimensions: 1.8" h x 2.7" w x 10.7" l (4.6 x 6.9 x 27.2 cm)

Weight: 1 lb (0.5 kg)

Detector Cable: 39" (99 cm), type "C" connectors



FEATURES:

- *Monitors alpha, beta, and gamma*
- *0-2 R/hr range*
- *External pancake GM probe (39" cable included)*
- *Internal energy-compensated GM detector*
- *Five counting scales (x0.1, x1, x10, x100, x1000)*
- *Alpha Efficiency – 30%*
- *Beta Efficiency – 10% for C-14, 45% for Sr-90*
- *Gamma Efficiency – 38% for Tc-99*
- *Sensitivity – 3300 cpm/mR/hr for Cs-137*

051-013 Survey Meter, Model 14C \$1,195.00
Includes Internal Energy-Compensated GM Detector, External Pancake GM Probe and mounted Check Source (Cs-137, 1.0 uCi).

Prices subject to change without notice.

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J. Gravengaard Corporation

Medical Imaging Sales & Service

PO Box 20171 Portland, Oregon 97294

Nationwide (800)796-SCAN

Local (503)255-0535

Fax (503)255-7047