palmRAD 907 Nuclear Radiation Meter

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The palmRAD 907 is an easy-to-use, portable radiation meter designed to accurately detect and measure levels of radioactivity for a multitude of health and safety applications. Lightweight and compact in design, the palmRAD 907 is capable of detecting and measuring alpha, beta, gamma and x-ray radiation using a 2-inch pancake GM detector with high sensitivity to beta and alpha sources.

Applications

- Compliance and Inspection
- Emergency Response
- Quality Control
- HAZMAT

Features

- Alarm Threshold
- Acquisition Timer
- Loud Audible Chirp
- palmGRAPH Software

The palmRAD 907 is an economical radiation detection solution for non-technical personnel in government, law enforcement or the private sector. The instrument offers the highest sensitivity to radiation making it an excellent tool for various applications including industrial, medical or emergency response. A slide switch on the front panel turns the unit on or off and also allows toggling between audible and silent chirp modes. Another slide switch allows the user to reset total counts, or display the radiation activity in mR/hr, CPM, CPS, or mSv/hr.

The back panel of the palmRAD 907 (shown above) features the 2-inch pancake GM detector.

The optional stainless steel Wipe Test Plate slides easily onto the 907 positioning the depression and wipe directly in front of the GM tube at a fixed distance of 1 centimeter. The Wipe Test Plate is removable for general surveying or decontamination. It can also be used for protecting the GM tube from damage and the instrument from being contaminated while the 907 is not in use.

The Total/Timer feature takes timed readings for periods from one minute to 24 hours for precise measurement of low-level contamination. Our "safety first" calibration feature can also eliminate radiation exposure to the calibration technician. The instrument's user-adjustable alarms alert audibly and visually when radiation is present and when preset exposure limits are exceeded. The dose rate or cumulative dose is shown digitally on the instrument's LCD display. The handheld unit comes with a protective pouch which secures to a user's belt for convenience in operation or transportation. The palmRAD 907 meets CE certification requirements for Europe.

BNC

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palmRAD 907 (shown left) being used to locate radiation and measure in uR.

Software Package Included

palmGRAPH™ is a Windows-compatible software package designed to record and graph radiation measured by the palmRAD 907 over time. When run in conjunction with an operating palmRAD 907, the software will notify the user when user-adjustable alert levels are exceeded by actual radiation counts. This software utility also allows the user to measure, record and display radiation readings over any period of time. View current palmRAD readings with palmGRAPH, or display and print graphs showing changes in radiation levels over time. palmGRAPH software is also useful for demonstrating gross count measurement theory in a classroom or training setting.

palmRAD 907 Specifications

Detector:	Halogen-quenched Geiger-Mueller tube. Effective diameter 1.75" (45 mm). Mica window density 1.5-2.0 mg/cm
Display:	4-digit liquid crystal display with mode indicators
Averaging Periods:	Display updates every 3 seconds, showing the average for the past 30-second time period at normal levels. The averaging period decreases as the radiation level increases. User can select fast 3-second averaging period.
Operating Range:	mR/hr: .001 to 100.0; CPM: 0 to 300,000; Total: 1 to 9,999,000 counts; mSv/hr: .01 to 1,000; CPS: 0 to 5,000
Efficiency:	Sr-90 (546KeV, 2.3MeV β max): approx. 75%; C-14 (156KeV β max): approx. 11%; Bi-210 (1.2 MeV β max): approx. 64%; Am-241 (5.5 MeV α): approx. 36%
Sensitivity:	3500 CPM/mR/hr referenced to Cs-137
Accuracy:	± 15%
Timer:	Can set 1-10 minute sampling periods in 1-minute increments, 10-50 minute sampling periods in 10-minute increments, and 1-24 hour sampling periods in 1-hour increments
Count Light:	Red LED flashes with each radiation event
Audio:	Beeper beeps with each radiation event; can be muted
Outputs:	Dual miniature jack drives CMOS or TTL devices, sending counts to computer or data logger. Submini jack allows for electronic calibration.
Anti-Saturation:	Readout holds at full scale in fields up to 100 times the maximum reading
Temperature Range:	-10° to +50° C , 14° to 122° F
Power:	One 9-volt alkaline battery; battery life is minimum 200 hours at normal background, minimum 24 hours at 1 mR/hr
Size:	150 x 80 x 30 mm (5.9"; x 3.2"; x 1.2")
Weight:	350 grams (12.5 oz) with battery
Options:	Wipe Test Plate

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