The Monitor 1000EC is an energy compensated radiation detector that measures gamma, and x-rays. Perfect for most applications requiring an energy compensated detector. Users can choose from readings of CPM, CPS, µSv/hr, mR/hr, or in accumulated counts. It has a red count light, a beeper that sounds with each count detected, and includes an adjustable timer, and selectable alert.

With the Free Radiation Alert Observer BLE app from the Google App Store, you can display the readings from your detector, label sample readings and descriptions, take timed counts, append GPS data and send your saved survey file. Alarms set on the instrument will also activate on your android device.

The Free Observer USB software (Windows® only) reads in Total Counts, CPM, µR/hr, mR/hr, CPS, µSv/hr, and has the ability to collect and log data, set alarms, set timed counts, set the calibration date and settings, and generate reports.

Applications & Uses
X-ray chamber inspection, Expanded Range up to 1000 mR/hr, Linear Response needs with Energy Compensation, Checking accelerator & x-ray shielding for leakage, Checking industrial gauges, such as moisture, density, or level gauges containing Cesium-137, Locating lost sources, Personal protection, Linear response detection applications, General surveying

Detector
Energy Compensated Halogen-quenched GM tube.

Energy Sensitivity
450 CPM/mR/hr referenced to Cs137. Detects gamma and x-rays down to 40 keV. Response is flat from 40 keV up.

Built-in Efficiencies
None

Averaging Periods
None

Operating Range
mR/hr – .001 (1µR) to 1000 mR/hr
µSv/hr – .01 to 10000
CPM – 0 to 450,000
CPS – 0 to 7500
Total Counts – 1 to 9,999,000 counts

Accuracy
(Referenced to Cs137)
Typically ±15% from factory, ±10% with NIST Source Calibration
NIST Calibration Additional

Anti-Saturation
Readout will OVERRANGE in radiation fields as high as 100 times the maximum reading.

Selectable Alert Set Range
mR/hr .001 – 1000 and CPM 1 – 450,000. Pulsating beeper sounds the alert. Adjustable alert levels are used for mR/hr / CPM, and µSv/hr / CPS. 70db @ 1m. Alarm will sound when in Timer Mode when set alarm threshold is reached.

Display
Graphic LCD with Backlight.

Outputs
USB for use with Free Observer USB Software for PCs
Bluetooth for use with the Free Observer BLE App for Android

Audio Indicator
Sounds with each count (can be switched off for silent operation)

Count Light
Red LED flashes with each count.

Power Requirements
USB Power or Two (2) AA alkaline batteries (included). Approx. 800 hrs @ background.

Temperature Range
-10° to +50°C (14° to 122°F)

Humidity
10% to 70% Non-Condensing.

Size
140 X 68 X 33 mm (5.5 X 2.7 X 1.3 in.)

Weight
204 g (0.45 lbs.)

Includes
Carrying Case, Xtreme Boot, Lanyard, Stand, Batteries, Mini-USB Cable, Observer USB Software Download, Observer BLE App, Certificate of Conformance

Options
Water Resistant Case, NIST Calibration

Limited Warranty
1 year limited warranty