

# RADIATION ALERT™

aByx



The Ranger is a small, handheld, digital survey meter which offers excellent sensitivity to low levels of alpha, beta, gamma, and x-rays. It has built in efficiencies for common isotopes to calculate activity in Bq and DPM. It has a backlit display and a count light and a beeper that sounds with each count detected. Other features include selectable alert levels, an adjustable timer, and an optional wipe test plate. Internal memory and the free Observer USB Software allow you to download your data, set computer alarms, and calibrate your instrument! The Bluetooth and Observer BLE enables saving, sharing, and automation of surveys and RadResponder compatibility.



## Detector

Internal Halogen-quenched, uncompensated GM tube with thin mica window, 1.4-2.0 mg/cm<sup>2</sup> areal density. Effective diameter of window is 45 mm (1.77 in.).

## Averaging Periods

Display will update every 3 seconds. At low background levels, the update is the moving average for the past 30-second time period. The timed period for the moving average decreases as the radiation level increases.

## Operating Range

mR/hr - .001 (1µR) to 100 CPM - 0 to 350,000  
µSv/hr - .01 to 1000 CPS - 0 to 5000  
Total/ Timer - 1 to 9,999,000 counts

## Accuracy

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

## Size

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

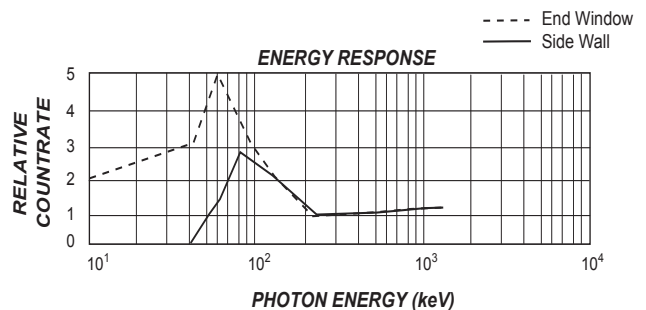
## Energy Sensitivity

3340 CPM/mR/hr referenced to Cs<sup>137</sup>

- Detects Alpha down to 2 MeV.
- Detects Beta down to .16 MeV; typical detection efficiency at 1 MeV is approx. 25%.
- Detects Gamma down to 10 KeV through the end window. Smallest detectable level for I<sup>125</sup> is .02 µCi at contact.

## Built-In Efficiencies

<sup>35</sup>Sulfur (S35), <sup>90</sup>Strontium (Sr/y90), <sup>137</sup>Cesium (Cs137), <sup>32</sup>Phosphorus (P32), <sup>14</sup>Carbon (C14), <sup>131</sup>Iodine (I131), <sup>60</sup>Cobalt (Co60), and Alpha



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## Display

Backlit Graphic LCD with Backlight

## Count Light

Red LED flashes with each radiation event

## Alert Set Range

mR/hr .001 - 100 and CPM 1 - 350,000

## Alarm Indicator

Internally mounted beeper. 70db @ 1m.  
(can be switched off for silent operation)

## Outputs

Bluetooth BLE for Observer BLE (RadResponder Ready)

USB for use with Observer USB Software Family

## Anti-Saturation

Meter will hold at full scale in fields as high as 100 times the maximum reading.

## Power Requirements

Two AA alkaline batteries

## Includes

Carrying Case, Xtreme Boot, Stand, Mini-USB Cable, Observer USB Software Download, Certificate of Conformance

## Options

Wipe Test Plate, Swipes, NIST Calibration

## Limited Warranty

1 year limited



Optional Wipe Test Plate Shown



Shown with ruggedized protective boot



Lanyard, Ruggedized Boot, Detector Cover, USB Cable and Stand Included



Detector Window and AA Battery Door on Back