

# RADIATION ALERT®

# Ranger

a  $\beta$   $\gamma$  x



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.

**Free Observer USB Software**  
**Free Observer BLE Software For Use With The**  
**Optional Bluetooth Module**

## 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.).

## 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



Detector Window

## 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

## Accuracy

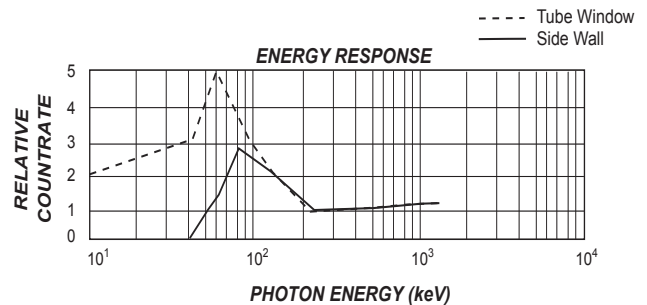
(Referenced to Cs<sup>137</sup>) Typically ±15% from factory, ±10% with NIST Source Calibration

## Anti-Saturation

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

## 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.



# S.E. INTERNATIONAL, INC.

excellence in radiation detection - a  $\beta$   $\gamma$  x

# RADIATION ALERT®

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# RADIATION ALERT<sup>®</sup> Ranger

## 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 (Optional) BLE for Observer BLE (RadResponder Ready)

USB for use with Observer USB Software Family

## Size

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

## 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

**Bluetooth module available for use with Obsever BLE software and Rad Responder**

## Limited Warranty

1 year limited



Shown with ruggedized protective boot



Optional Wipe Test Plate Shown



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

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