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GSA Contract: GS07F261AA DUNS: 102564622 CAGE: 02KN6 NAICS: 334519, 512110, 512120, 512191,
519130,



NukAlert-ER™ Geiger counter-Bluetooth model

Communicates with RadResponder Network, WebEOC, and other databases through new NukAlert Smartphone App

The NukAlert-ER™ is an 'Extended Range' radiation detection instrument with a dual mode BLE Bluetooth 4.0 radio. It is a very sensitive Geiger counter that is also able to measure life-threatening radiation levels that are beyond the range of traditional Geiger-based devices. The NukAlert-ER accurately measures radiation over an extraordinary intensity range from **1 μ R/hr to 700R/hr. with no saturation below 1,000R/hr.** It is a very sensitive Geiger counter, high range survey meter and a dosimeter, all in one instrument, with data collection, communications capability and adjustable dose and rate alarms. The ER is manufactured in the US by an American company with more than 16 years' experience producing radiation detection devices.

Traditional Geiger counters sized for high sensitivity are adequate to measure background radiation levels, but are inherently incapable of measuring the life threatening levels possible from a power plant catastrophe, dirty bomb, Improvised Nuclear Device (IND) or nuclear attack. Unlike the NukAlert-ER™, the "dead time" of traditional Geiger counter circuits cause some sensitive interdiction counters to become inoperative above radiation levels of about 10mR/hr (a level which may be a long term health risk, but is far below immediately life-threatening).

The NukAlert-Extended Range™ Geiger counter uses sophisticated high-voltage control circuitry and performs statistical analysis of the pulses from the Geiger tube to enable radiation measurement over an intensity range from 1 μ R/hr to 700R/hr. This technique is referred to as "Time to First Count" in radiation detection textbooks. The result is a single device that can be used as a sensitive Geiger counter, survey meter and dosimeter. Its wide dynamic range facilitates the location of shelter, aids decontamination of people, allows preliminary evaluation of food, and measures windblown fallout from distant sources. Accuracy tested by Oak Ridge National Laboratory.

The NukAlert-ER™ can locate the source of radiation quickly through its numeric readout, audible alert, and bright flashing light to determine if you are in a life threatening situation. The NukAlert-ER helps emergency responders to determine if a scene is safe.



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Features:

- **Will not saturate and give false or no readings in high levels of radiation**
- Geiger counter, Survey Meter, and Dosimeter in one instrument
- Excellent linearity over 9 decades of radiation intensity
- Measures Dose rate, Accumulated Dose, Count Rate, and Time Remaining to preset dose
- Audio and visual alarms for Dose rate and Accumulated Dose
- Stores 500 time-stamped measurements at selected intervals in memory
- Periodic wake-up mode allows long term (up to 1 year) monitoring by battery power
- Continuous or stored readings by USB to any computer with free open source software
- Powered by common AA batteries (Alkaline or Rechargeable), or USB cable
- Roentgen or Sievert units
- Back Lighted Display
- Battery Gauge
- Intuitive, easy-to-use menu operation
- System Self-Tests
- USB Port
- USB cord and belt carrying case included
- Windows App included
- RadResponder Network App compatible
- WebEOC smartphone compatible

Specifications:

- Size & Weight: 135mm x 70mm x 25mm, 165g
- Range: 1 μ R/hr to 700R/hr.
- **No saturation below 1000R/hr**
- **Accuracy tested by Oak Ridge National Laboratory**
- Accuracy (Cs137): \pm 20%, 1 μ R/hr through 700R/hr
- Power source: 2ea AA alkaline or NiMH cells, or USB
- Designed to meet ANSI N42.33 specifications
- Battery Life: (2600 mAh Alkaline battery)
 - Up to 65hrs at background count rate, 24hrs above 100mR/hr
 - Up to 1 year in periodic monitor mode
 - Up to 3 years sleep mode
- Data access by: Display, USB.
- Display: 2 line x 16 character backlit LCD
- Environment: -20°C to +65°C, 0 to 95% humidity (noncondensing)
- Pressure Altitude to 0.5 atm
- Geiger system: Active electronic quenching
- High rate system: Time To First Count (TTFC)
- Tube Voltage: Adjustable by software up to 1000V
- Geiger tube: Supplied with LND 7121 Geiger tube



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- Gamma Sensitivity: 18 counts/sec @ 1mR/hr (10 μ Sv/hr)
- Background: <10 counts/minute (Shielded)
- Beta sensitivity: Through front window above 200KeV
- Rapid, sudden radiation change response time accuracy : 2 seconds at 10mR/hr within \pm 25%
- Unlimited over range indication
- One year limited warranty with extended 1 year warranty and calibration service available
- Bluetooth 4.0 BLE Dual Mode
- Selectable Rate alarm thresholds:
 - μ R/hr: 10,20, 25, 30, 50, 100, 200, 250, 300, 500
 - mR/hr: 1, 2, 3, 5, 10, 20, 25, 30, 50, 100, 200, 250, 300, 500
 - R/hr: 1, 2, 2.5, 3, 5, 10, 20, 25, 30, 50, 100, 200, 250, 300, 500, 1000
- Selectable Dose alarm thresholds:
 - μ R: 100,200, 250, 300, 500
 - mR: 1, 2, 2.5, 3, 5, 10, 20, 25, 30, 50, 100,200, 250, 300, 500
 - R/hr: 1, 2, 2.5, 3, 5, 10, 20, 25, 30, 50, 100,200, 250, 300

Snooze periods for rate and dose alarms:

5 minutes below 1mR/hr

3 minutes between 1mR/hr and 1R/hr

1 minute 1 R/hr and above

- Both rate and dose alarm sound after their respective threshold is crossed and may be temporarily silenced (snoozed) by pressing the OK button.
- The rate and dose alarms operate independently and concurrently.
- Both rate and dose alarms will resume sounding after the snooze period and may be re-snoozed indefinitely.

Windows App: (included) shows large highly visible numeric radiation level with color-coded hazard level screen, real-time bar graph with numeric radiation levels and audible alarm all on the same screen, raw count screen, web reporting screen, and device history screen with time stamp.

- Can report in ANSI N42.42-2012 format
- 72 Hours of scrolling graphical history (left/right draggable) with user selectable Alarm level box
- Auto-Scaling or manual scaling (up/down draggable)
- Real time radiation readings link to web including RadResponder Network and live maps
- High Precision (long-term) raw count totaling and rate calculation (downloadable)
- Manual logging (downloadable)
- Device history- 500 time-stamped events (downloadable)
- Multiple email and text alerts (through web database)
- On-screen visual and audio alarms

Web page: <https://apogeepreparedness.com/personal-radiation-detectors/35/nukalert-extended-range-er-radiation-detector-detail>

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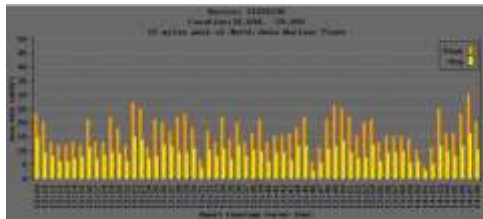
Bomb robot with ER



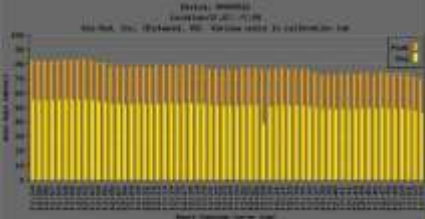
Windows App



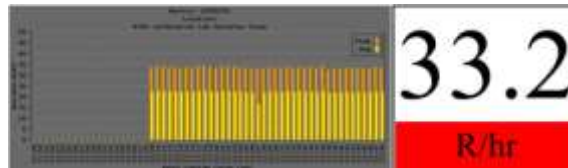
NukAlert-ER PRD



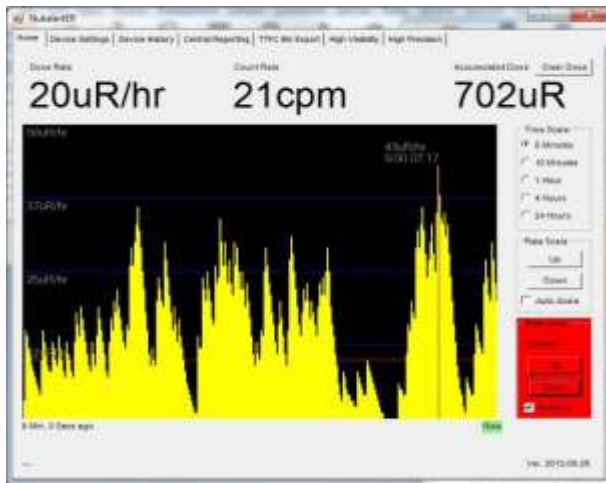
Live Report from web near nuclear power plant



Live report example from Web



Scrollable bar graph with audio and visual alarm



App report showing dangerous radiation level



App on PC screen

Live web database source code example is available to agencies at no charge for website applications. Live reports include serial number, user location, last reported rate, average of reported rates, peak of reported

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rates, number of reports, and more. **Email alerts** can be sent through the NukAlert Demo web page warning if rates exceed a preset level.

Link: [NukAlert App](#)

Link: Windows App [Live Web Reporting Test Site](#)

GAO Report: Nuclear Terrorism Response Plans: Major Cities Could Benefit from Federal Guidance on Responding to Nuclear and Radiological Attacks. Link: <http://www.gao.gov/products/GAO-13-736>

Nationwide Response Issues After an Improvised Nuclear Device Attack: Medical and Public Health Considerations for Neighboring Jurisdictions: Workshop Summary Link: http://www.nap.edu/catalog.php?record_id=18347

National Capital Region IND Report: Link: <http://www.fas.org/irp/agency/dhs/fema/ncr.pdf>

Show Devices reporting in the last

Serial Number	Location	Status	Latest Reported Rate	Average of reported rates	Peak of reported rates	Number of Reports	Latest Report
11026091	37.598, 77.488	AutoPartSource - Richmond, VA	10uR/hr	18uR/hr	28uR/hr	118	19 Seconds ago
11026191	37.600, 75.000	Iron rail mech room overlap test	10.2mR/hr	10.2mR/hr	10.6mR/hr	118	14 Seconds ago
21026192	40.830, 105.218	Boulder, Colorado	7uR/hr	20uR/hr	53uR/hr	108	Just now
21026194	37.82184, 77.880341	Kno-Rad, NukAlert Gateway, Charlottesville, VA	13uR/hr	19uR/hr	32uR/hr	80	41 Seconds ago
21026197	37.548991, 77.450362	KMS Unit, at work, 2nd floor	12uR/hr	12uR/hr	23uR/hr	118	13 Seconds ago
21026201	37.4867, 77.4047	Kno-Rad ER Gateway	14uR/hr	14uR/hr	22uR/hr	117	24 Seconds ago
21026204		KMU calibration lab Donzales Texas	1.20mR/hr	1.72mR/hr	1.88mR/hr	118	27 Seconds ago
21026225	38.8208, 78.8223	NukAlertER Gateway near Douglas NAS	4uR/hr	10uR/hr	25uR/hr	58	33 Seconds ago

Example of live web reporting page



Live web reports email alerts and settings page

