

AccuRad™ PRD

Personal Radiation Detector



A discreet yet robust PRD designed for law enforcement, fire rescue, and other emergency responders to detect and interdict nuclear and radioactive materials. It also provides dose measurement and alarming capabilities for event response.

A FIRST OF ITS KIND

- Solid and durable, with an impact-resistant covering
- Simple to use – no training required
- Discreet, with a top-screen display for quick-glance reading
- Long-lasting, easily replaceable batteries allowing more than 900 hours in the field
- Directionality, helping users zero in on trouble faster
- Low cost of ownership

MADE BY RADIATION EXPERTS

Mirion, and in-the-field professionals.

Only get alerts for real threats. The AccuRad PRD runs on innovative Variable Background Suppression (VBS), allowing operation in varying background environments and will alarm only for a real threat or hazard.

Get accurate radiation exposure readings. The AccuRad PRD provides dose measurement and dose alarms for radiological events, utilizing Mirion's long-standing expertise in the radiation safety industry.

Analyze incoming information in real-time. The app allows real-time data visualization and real-time data relays to increase situational awareness across many PRDs and other detectors. Compatible with a variety of platforms, including RadResponder, Sigma and SpirVIEW Mobile™ software.

BY EMERGENCY RESPONDERS. FOR EMERGENCY RESPONDERS

The AccuRad PRD is the first PRD developed in close collaboration with state and federal law enforcement and first responders to fit seamlessly into their routines and address the most critical, in-the-field needs from a radiation detection device.

The AccuRad PRD is built:

For the reality of field work: rough treatment, harsh conditions. The AccuRad PRD is solid, durable, with an impact-resistant covering to stand up to the test, time and time again.

For discreet, hands-free detection. The AccuRad PRD is low-profile and easy to read with the top-screen display. Users no longer need to remove the PRD to take a look.

For waterproof protection for when teams are (literally) putting out fires.

For “set it and forget it” use, with minimal training and maintenance required. The AccuRad PRD is in-the-field-easy — simple to use even in the toughest situations and offers a tutorial library in the smartphone app.

For when you can't let a source get away. Find the location of a radioactive hot spot in a large, busy environment with built-in directionality.

For an entire week, month, mission... without a battery change. The AA batteries in the AccuRad PRD last for 900 hours in the field and are easily replaceable with commercial batteries.

AccuRad™ PRD

SPECIFICATIONS

CHARACTERISTICS

Physical

- Weight: 7 oz (200 g), including clip
- Size: 4.25 x 2.4 x 1.4 in. (108 x 61 x 36 mm) without clip

Batteries

- Two AA batteries for more than 900 hours of continuous operation
- Tool-less battery cover

Environment

- Protection rating: IP67 (dust and 1 m water immersion)
- Temperature: -22 °F to 140 °F (-20 °C to 60 °C)
- Drop: 1.5 m (4 ft 11 in.) on concrete
- Innovative heavy-duty bi-material construction
- Replaceable fiber-reinforced clip

USER INTERFACE

Modes of Operation

- Dose or count rate
- Search with trend or radar
- 0-9 display indicator



Display

- Top display enables hands-free visual alarm assessment
- Languages: English, Spanish

Buttons and Navigation

- Intuitive to use even without training
- Comfortable for one-handed operation

Alarming

- Vibration
- Visual LED
- Audible sound: 85 dB(A) at 30 cm (11.8 in.)

RADIOLOGICAL PERFORMANCE

Detectors

- CsI(Tl) scintillation detector with temperature compensated SiPM for interdiction missions
- Silicon diode for integrated dose and high dose rate to ensure proper health and safety

Detection Performance

- Alarms at 50 $\mu\text{rem/h}$ (0.5 $\mu\text{Sv/h}$) within two seconds
- VBS: Authenticates true alarms in variable backgrounds
- Energy range: 25 keV to 3 MeV; detects all radionuclides of concern

Dose Rate

- Range: up to 1000 rem/h (10 Sv/h) with measurement history
- Accuracy: $\pm 20\%$, no precision for the radionuclide

Dose

- Range: 1 μrem to 1000 rem (0.01 μSv to 10 Sv)
- Accuracy: $\pm 20\%$ (Cs-137), $\pm 10\%$ (Am-241)

CONNECTIVITY

- Bluetooth® Low Energy with Near Field Communications (NFC) pairing to smartphone
- USB type C for earphones and maintenance

APPLICATION ENABLED FEATURES

- Remote display, access to history and logs
- Reachback/streaming: email, SMS, SpirVIEW Mobile, RadResponder, ANSI N42.42 files
- Learning section with how-to videos and documentation

ACCESSORIES

- Standard: AccuRad PRD, AA alkaline batteries, quick guide, spare clip
- USB C earphones, clip, battery cover
- Radiation safety training modules for law enforcement, fire rescue and other responders
- SpirVIEW Mobile command center software

STANDARDS

- ANSI N42.32-2016 (PRD) certified by accredited independent laboratory
- ANSI N42.49A-2011 (PERD category 2)
- IEC 62401:2017 (PRD) certified by independent laboratory

