

# IDENTIFINDER® R225

Spectroscopic Personal Radiation Detector



The identiFINDER® R225 is a rugged, pager-sized Spectroscopic Personal Radiation Detector (SPRD). The R225 features a single 18mm cubic CsI detector with SiPM (G/GN) providing exceptional sensitivity and identification capability. There is also an option for an LaBr(Ce) spectroscopic detector (LG/LGN) for  $\leq 3.5\%$  resolution. The device features the familiar three-button control common to all identiFINDER products. The R225 provides ANSI N42.48 SPRD compliance, as well as MIL STD 810G (Salt Fog) compliance.

The R225 comes with key features built on feedback of its predecessor the identiFINDER R200 including operating in multiple languages. The screen has been upgraded for increased brightness and added color to be visible in sunlight and through polarized sunglasses. The holster has been modified to provide quick access to the device and for the screen to be completely visible while holstered. The battery can operate for over thirty hours with hot-swappable backups and built-in Bluetooth, Wi-Fi, and GPS ensure remote data viewing.



## FAST FRONTLINE DETECTION AND RESPONSE

Outstanding spectral ability to enable fast front-line detection and response

- Belt-worn gamma and neutron detection and gamma identification.
- Technologically advanced SiPM with CsI to provide  $< 7.5\%$  resolution or SiPM with LaBr to provide  $< 3.5\%$  resolution.
- Field-proven and trusted template matching algorithms characteristic and present in the entire identiFINDER family of products.

## WEAR WITH CONFIDENCE IN THE HARSHTEST ENVIRONMENTS

Survives tough missions so you can wear with confidence

- IP67 rated for use in harsh environments or temporary submersion during decontamination.
- MIL-STD 810G (salt/fog) compliant.
- Automatic calibration, stabilization, and no user maintenance required.

## PROVIDE CRITICAL INFORMATION IN REAL TIME

Low training burden for quick field adoption

- Ability to monitor and control remotely using the mobile app (iOS & Android).
- Built in communications and a robust API enable integration with user deployed networks. ANSI N42.42 data output is standard.
- Integration with SIGMA Edge with ATAK coming soon.

## SPECIFICATIONS

### identiFINDER R225

|                                                  |                                                                                           |
|--------------------------------------------------|-------------------------------------------------------------------------------------------|
| Technology                                       | Spectroscopic personal radiation detector (SPRD)                                          |
| Gamma Detector - CsI(Tl)<br>(G & GN Models)      | (18mm) <sup>3</sup> Cesium Iodide (CsI) with Silicon Photomultiplier (SiPM)               |
| Gamma Detector - LaBr3(Ce)<br>(LG & LGN Models)  | (18mm) <sup>3</sup> Lanthanum Bromide (LaBr3(Ce)) with Silicon Photomultiplier (SiPM)     |
| Neutron Detector - ZnS<br>(GN & LGN models only) | 27 mm x 62 mm x 5 mm                                                                      |
| Energy Range (Gamma)                             | 25 keV - 3 MeV                                                                            |
| Gamma Spectrum                                   | 1024 channels; 3 MeV                                                                      |
| Gamma Sensitivity (Cs-137)                       | 2.1 cps/urem/h (G & GN models)<br>1.94 cps/urem/h (LG & LGN models)                       |
| Neutron Sensitivity                              | ≥ 7.5 cps/nv (GN & LGN models only)                                                       |
| Dose Rate Range ID Mode (Cs-137)                 | 0.1 µrem/h - 25 mrem/h<br>1 nSv/h - 250 µSv/h                                             |
| Dose Rate / Accuracy (Cs-137)                    | ≤10 µrem/h – 1 rem/h ± 20%,<br>≤100 nSv/h – 10 mSv/h ± 20%                                |
| Stabilization                                    | Sourceless gain stabilization                                                             |
| Linearization                                    | Real time linearization of gamma energy                                                   |
| Typical Resolution                               | ≤7.5 % FWHM at 662 keV (G&GN models)<br>≤3.5 % FWHM at 662 keV (LG&LGN models)            |
| Service Interval                                 | Recommended five-year factory maintenance interval; annual dose rate calibration interval |

### Sampling & Analysis

|                      |                                                                                                                                                                             |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sample Introduction  | Absorption of EM gamma and neutron emissions                                                                                                                                |
| Threats              | Detects gamma and neutron radiation emitted from natural occurrences in the environment, special nuclear material, industrial, or medical material                          |
| Standards Compliance | ANSI N42.32 PRD standard fully compliant<br>ANSI N42.48 SPRD standard fully compliant, including nuclide identification<br>ANSI N42.42 data format standard fully compliant |
| Sampling & Analysis  | From a few seconds to minutes                                                                                                                                               |

### System Interface

|                       |                                                                |
|-----------------------|----------------------------------------------------------------|
| Display & Alerts      | Sunlight readable color display, LED alarm indicators, audible |
| Communication         | USB-C , WiFi, Bluetooth (BLE 5.0)                              |
| Training Requirements | <10 mins for operator; 1 day for advanced user                 |
| Connectivity          | Online mobile app available (Android, iPhone)                  |
| Software              | On-board webserver software                                    |

### Power

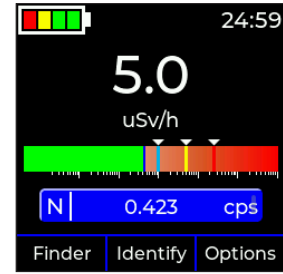
|                                           |                                                                                            |
|-------------------------------------------|--------------------------------------------------------------------------------------------|
| Input Voltage                             | 100-240 VAC (wall and car adapters and USB cable supplied)                                 |
| Battery Specs Internal single cell Li-ion | operational battery life ≥24h; replaceable back-up CR-123A: operational battery life ≥12h; |
| Startup Time                              | <1 minute from cold start                                                                  |

### Environmental

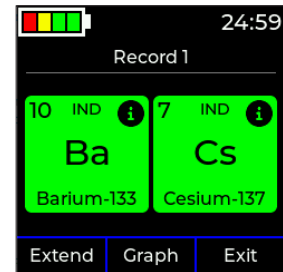
|                        |                                                                                                                           |
|------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Operating Temperature  | -22 to 122 °F (-30 to 50 °C)                                                                                              |
| Operating Humidity     | 0 to 100%                                                                                                                 |
| Storage Temperature    | 14 to 122 °F (-10 to 50 °C)                                                                                               |
| Enclosure & Protection | Plastic injection with rubber overmold; protection rating IP67 according to IEC 60529 ; MIL STD 810G (Salt Fog) compliant |

### Physical Features

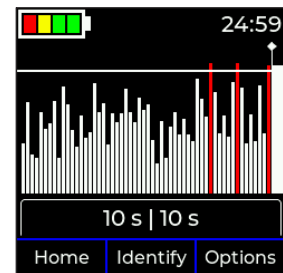
|                        |                                          |
|------------------------|------------------------------------------|
| Dimensions (L x W x H) | 5.7 x 2.2 x 1.9 in (14.5 x 5.6 x 4.9 cm) |
| Weight                 | ≤0.89 lb (406 g)                         |
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Dose Rate Mode



Radioisotope Identification



Neutron Detection