

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 Csl 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 MSLTD 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 Csl 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 HARSHEST 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(TI) (18mm)^3 Cesium Iodide (CsI) with Silicon Photomultiplier (SiPM) (G & GN Models)

Gamma Detector - LaBr3(Ce) (18mm)^{^3} Lanthanum Bromide (LaBr3(Ce)) with Silicon Photomultiplier (SiPM)

(LG & LGN Models)

Neutron Detector - ZnS

27 mm x 62 mm x 5 mm

(GN & LGN models only)
Energy Range (Gamma)
25 keV - 3 MeV

Gamma Spectrum
1024 channels; 3 MeV
21 and (1977)

Gamma Sensitivity (Cs-137)

2.1 cps/urem/h (G & GN models)
1.94 cps/urem/h (LG & LGN models)

Neutron Sensitivity $\geq 3.9 \text{ cps/nv}$ (GN & LGN models only) Dose Rate Range ID Mode (Cs-137) 0.1 μ rem/h - 25 mrem/h

| 0.1 µrem/h − 25 mrem/h |
| 1 nSv/h − 250 μSv/h |
| 2 nSv/h − 2 nrem/h − 1 rem/h ± 20 |
| 2 nSv/h − 2 nrem/h − 1 rem/h ± 20 |
| 3 nSv/h − 2 nrem/h − 1 rem/h ± 20 |
| 4 nSv/h − 2 nrem/h − 1 rem/h ± 20 |
| 5 nSv/h − 2 nrem/h − 1 rem/h ± 20 |
| 5 nSv/h − 2 nrem/h − 1 rem/h ± 20 |
| 6 nSv/h − 2 nrem/h − 1 rem/h ± 20 |
| 7 nSv/h − 2 nsv

Dose Rate / Accuracy (Cs-137) $\le 10 \mu \text{rem/h} - 1 \text{ rem/h} \pm 20\%, \\ \le 100 \text{ nSv/h} - 10 \text{ mSv/h} \pm 20\%$ Stabilization Sourceless gain stabilization

Linearization Real time linearization of gamma energy

Typical Resolution

\$7.5 \text{ FWHM at 662 keV (G&GN models)} \
\$3.5 \text{ FWHM at 662 keV (LG&LGN models)} \
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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

ANSI N42.48 SPRD standard fully compliant, including nuclide identification

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;

<1 minute from cold start

Environmental

Startup Time

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 \leq 0.89 lb (406 g) \leq 0.89 lb (406 g) \leq 0.89 lb (406 g)

Specifications are subject to change without notice. For the most up-to-date specs, go to www.teledyneflir.com

AMERICAS

APAC

EMEA

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Dose Rate Mode



Radioisotope Identification



Neutron Detection

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