HIGHLY SENSITIVE HANDHELD SPECTROSCOPIC DETECTION & IDENTIFICATION

FLIR identiFINDER® R500

The FLIR identiFINDER R500 is the most sensitive radionuclide identification device (RID) available and is capable of rapidly locating and identifying radioactive material in dificult monitoring scenarios. Like other identiFINDER R-series products, the R500 contains on-board Bluetooth, web server, and GPS technologies. It produces rapid alerts that expedite response measures and enable field operators to make a next step determination. The common operating interface and template matching technology provides immediate comfort and confidence when using the device. The additional detector volume allows the R500 to identify radioactive material where other instruments cannot. When large areas need to be screened rapidly or there is potential for shielding, as in truck and cargo scanning, the identiFINDER R500 provides superior sensitivity and performance compared to other RID devices.

www.flir.com/R500

HIGHLY SENSITIVE DETECTOR

Easily locate heavily shielded sources and detect from farther away

- Large NaI or LaBr detector surface areas allow for detection of shielded sources and wide area scanning
- Detects radiation source within a few seconds and reduces time to locate source
- Available in gamma only or gamma and neutron models
- High resolution, low false alarms

RELIABLE PERFORMANCE

Quickly and efficiently detect, locate, measure, and identify radiological sources

- Fast, two-minute startup
- Identifies ANSI N42.34 library
- Back-up gamma detector provides detection capability, even in high dose rate environments
- Automatic calibration and continuous LED stabilization for temperature control and other conditional changes

EASILY OPERATED

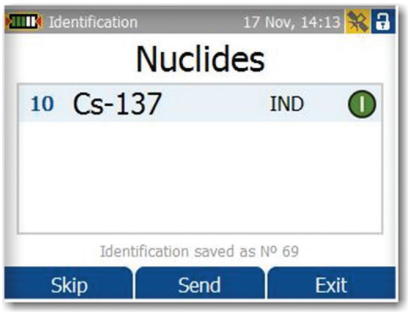
Rapid alerts and communications for expedited decision-making

- Easily transfer important tactical information
- On-board GPS, webserver, and Bluetooth capabilities
- Common operating interface reduces training burden
- Large, easy-to-read color display

SPECIFICATIONS

identiFINDER R500	
Technology	Radionuclide identification device (RID)
Product Variants	NG[1], NGH[2], LG[3], LGH[4]
Gamma (NaI) [1-10]	4.0 x 0.7 in (102 x 19 mm)
Gamma (LaBr3) [3, 4]	1.5 x 1.5 in (38 x 38 mm)
Neutrons (He-3) [2,3]	0.7 x 4.2 in (19 x 106 mm)
Gamma (High Dose Rate)	Geiger-Müller tube
Energy Range (Gamma)	20 keV - 3 MeV
Corrections	Real-time linearization of gamma spectrum
Gamma Spectrum	1024 channels; 3 MeV
Dose Rate / Accuracy (Cs-137)	0.000 nSv/h – 1.00 mSv/h (0 nrem/h – 100 mrem/h) / ±30 %
Scintillator Dose Rate Range	0 nSv/h - 50 µSv/h (0 nrem/h - 5.0 mrem/h)
Geiger-Müller Dose Rate Range	10 µSv/h - 1.0 mSv/h (1.0 mrem/h - 100 mrem/h)
Dose Range	0 µSv - 1 Sv (0 µrem - 100 rem)
Overload Dose Rate Range	1 mSv/h - 10 mSv/h (100 mrem/h - 1.0 rem/h)
Neutron Sensitivity	Variants [2, 4]: 9 cps/nv; ±15 %
Stabilization	Calibration source; LED
Typical Resolution	Variants [1, 2]: ≤8 % FWHM; Variants [3, 4]: 3.5% FWHM at 662 keV
Service Interval	5- year factory maintenance
Sampling & Analysis	
Sample Introduction	Absorption of EM gamma or neutron emissions
Threats	Detects neutron or gamma radiation emitted from natural occurrences in the environment, special nuclear material, industrial, or medical material
Nuclide Identification	According to ANSI N42.34
Sampling & Analysis	From a few seconds to minutes
System Interface	
Display & Alerts	Transflective color LCD
Communication	USB 2.0; mini-B socket; Bluetooth® Class 2.0, ≤10m range
Data Storage	2GB internal memory; up to 600,000 spectra
Training Requirements	<10 mins for operator; 1 day for advanced user
GPS (removable)	12-channel SiRF III receiver
Software	On-board webserver software

Power	
Input Voltage	100-240 VAC (wall and car adapters and USB cable supplied)
Battery Specs	FLIR powerPACK ultra 2 (LSD NiMH, rechargeable); ≥8h operational battery life; recharge ≤4h when using AC; recharge >4h when using USB
Cold Start Time	<2 mins from cold start
Environmental	
Operating Temperature	-4 to 122 °F (-20 to 50 °C)
Operating Humidity	10 to 80%
Storage Temperature	14 to 95 °F (-10 to 35 °C)
Physical Features	
Dimensions (L x W x H)	8.3 x 5.1 x 12.7 in (21.1 x 12.9 x 32.3 cm) - with battery
Weight	≤6.4 lbs (≤2.9 kg)
Enclosure & Protection	Aluminum housing; protection rating IP54 according to IEC 60529



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

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