

### Product

## identiFINDER<sup>®</sup> R 500

### Product Variants

- \*1 radHUNTER ULCS-NG
- \*2 radHUNTER ULCS-NGH
- \*3 radHUNTER UL-LGH
- \*4 radHUNTER UL-LG

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### General

The identiFINDER R 500 is an extremely sensitive and accurate digital handheld radioisotope identification device (RIID). It provides continuous detection capability and the fast identification of radioactive material which supplies critical information to the user in the field, enabling them to make a next step determination. The unit can contain either a 102 mm (4.0") × 19 mm (0.7") NaI or 38 mm (1.5") × 38 mm (1.5") LaBr<sub>3</sub> scintillation detector with an energy compensated GM detector included for high dose rate situations. The instrument can be equipped with an optional <sup>3</sup>He neutron detector. The large volume scintillation detectors increases its ability to detect and locate source in difficult environments make it appeal for a variety of challenging applications. If large areas need to be scanned rapidly or there is potential for shielding (as frequently encountered in truck and cargo scanning), the identiFINDER R 500 provides superior performance compared to other RIIDs.

### Detectors

Gamma: NaI <sup>*1 *2</sup>	Crystal size 102 mm (4.0") × 19 mm (0.7")
Gamma: LaBr <sub>3</sub> <sup>*3 *4</sup>	Crystal size 38 mm (1.5") × 38 mm (1.5")
Neutrons: <sup>3</sup> He Proportional Counter Tube <sup>*3 *2</sup>	19 mm (0.7") × 106 mm (4.2"); net: 18 mm (0.7") × 75 mm (3.0"); 8 atm
Gamma (High Dose Rate)	Geiger-Müller detector
GPS	12-channel SiRF III receiver

### Performance

Energy Range (Gamma)	20 keV – 3 MeV
Corrections	Real-time linearization of gamma spectrum
Gamma Spectrum	1024 channels; 3 MeV
Dose Rate Range	0.000 µSv/h – 1.00 mSv/h
dto. Scintillator	0.000 µSv/h – 50 µSv/h
dto. Geiger-Müller Detector	10 µSv/h – 1.00 mSv/h
dto. Overload	1 mSv/h – 10 mSv/h
Dose Range	0.000 µSv – 1 Sv
Neutron Sensitivity <sup>*3 *2</sup>	9 cps/nv ± 15 %
Stabilization	Calibration source; LED; ± 1 % for temperature change rate of 0.5 °C (0.9 °F)/min
Nuclide Identification	According to ANSI N42.34
Typical Resolution <sup>*1 *2</sup>	8 % FWHM at 662 keV at 20.0 °C (68.0 °F) ambient temperature

### Physical

Dimensions (W × D × H)	129 mm (5.1") × 212 mm (8.3") × 323 mm (12.7")
Weight <sup>*1 *2</sup>	2900 g (102.3 oz) including batteries
Weight	2895 g (102.1 oz) including batteries
Weight <sup>*3 *4</sup>	2460 g (86.8 oz) including batteries
Housing Material	Aluminium

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**Environmental**

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Operating Temperature	-20 °C – +55 °C (-4 °F – 131 °F)
Temperature Change	Sudden temperature change must not exceed 30.0 °C (54.0 °F) in order to avoid damage to the detector crystal
Relative Humidity	10 % – 80 %, non condensing
Protection Rating	IP54 according to IEC 60529

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**Battery**

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Type	FLIR powerPACK ultra 2 (LSD NiMH, rechargeable)
Operating Duration	≥8 h at 20.0 °C (68.0 °F) in dose rate mode with dimmed display back light and GPS switched off

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**Display**

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Type	Transflective color LCD
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**Input/Output**

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USB	USB 2.0; mini-B socket
Bluetooth <sup>*3 *1 *2</sup>	Class 2.0; ≤10 m (32'9.7") range

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**Software**

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IPv4	DHCP server included; subnet configurable
IPv6	ULA routing prefix fde6:e89e:44bc::/48 with device specific subnet

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GPS can be removed upon request. Bluetooth can be removed upon request.