

FLIR identiFINDER R400

Handheld Spectroscopic Radiation Detection and Identification



The FLIR identiFINDER R400 is the most widely deployed handheld radiation detection and identification product in the world. At half the size and weight of competitive radioisotope identification devices (RIID), the R400 helps operators feel comfortable using the instrument even in the most hazardous and stressful environments. Operators use the handheld R400 to detect, quickly locate, measure, and identify the source of radioactive material. Like other identiFINDER R-series products, the R400 contains on-board Bluetooth, web server, and GPS technologies and produces rapid visible, audible, and tactile alerts that expedite response measures. The common operating interface reduces training time and costs, while increasing operator confidence and inter-operability between agencies using FLIR products. The identiFINDER R400 provides operators the ideal balance of size and weight for a wide variety of monitoring scenarios including all-purpose surveying, emergency response, and environmental monitoring. With over 20,000 devices deployed globally, it is the most trusted RIID in the world.



CUSTOM APPLICATIONS

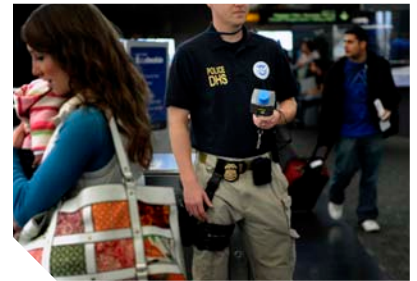
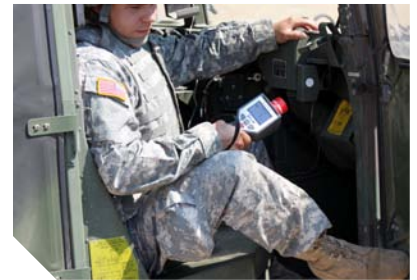
- All-purpose surveying
- Emergency response
- Environmental monitoring
- Port and border scanning

FEATURES & BENEFITS

- Field-proven with over 20,000 units deployed globally
- Gamma and neutron detection
- Identifies ANSI N42.34 library
- High resolution and low false alarms
- Rapid visible, audible, and tactile alerts
- Fast two-minute start up
- 5 year factory maintenance interval

SPECIFICAT IONS

Technology	Radioisotope identification device (RIID)
Product Variants	NG ¹ , NGH ² , ULCS-NG ³ , ULCS-NGH ⁴ , ULK-NG ⁵ , ULK-NGH ⁶ , UW-NG ⁷ , R400-UW-NGH ⁸ , UW-ULCS-NG ⁹ , UW-ULCS-NGH ¹⁰ , T1 ¹¹ , T2 ¹² , LG ¹³ , LGH ¹⁴
Gamma (NaI) 1-10	1.4 x 2.0 in (35 x 51 mm)
Gamma (NaI) 11-12	0.9 x 0.8 in (23 x 21 mm) - Tungsten shielded
Gamma (LaBr3) 13-14	1.2 x 1.2 in (30 x 30 mm)
Neutrons (He-3) 2,4,6,8,10	0.6 x 2.1 in (15 x 54 mm)
Gamma (High Dose Rate)	Geiger-Muller
Energy Range (Gamma)	20 keV - 3 MeV
Gamma Spectrum	1024 channels; 3 MeV
Dose Rate / Accuracy (Cs-137)	0 nrem/h - 1.0 rem/h (0 nSv/h - 10.00 mSv/h); ±30 %
Scintillator Dose Rate Range	0 nrem/h - 50 mrem/h (0 nSv/h - 500 uSv/h)
Geiger-Muller Dose Rate Range	10 mrem/h - 1.0 rem/h (100 uSv/h - 10 mSv/h)
Dose Range	0 nSv - 1 Sv (0 nrem - 100 rem)
Overload Dose Rate Range	1.0 rem/h - 100 rem/h (10 mSv/h - 1 Sv/h)
Neutron Sensitivity ^{2,4,6,8,10,14}	2.6 cps/nv; ±20 %
Stabilization	Variants ^{1,2,3,4,6,7,8,9,10} : Calibration source Variants ^{3,4,5,6,9,10,13,14} : LED
Typical Resolution	Variants ¹⁻¹² : ±8 % FWHM / ^{13,14} : 4.5 % 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; micro-B socket ^{1,2,3,4,5,6,11,12} or LEMO Series K socket ^{7,8,9,10} ; BluetoothR Class 2.0 .10m range (removable)
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	Either rechargeable NiMH or 4x AA pack (supplied); .8h operational battery life; recharge .4h when using AC; recharge >4h when using USB
Cold Start Time	<2 mins from cold start

Environmental

Operating Temp	-4 to 122 °F (-20 to 50 °C)
Operating Humidity	10 to 80%; variants 7, 8, 9, 10 .100 %
Storage Temp	14 to 95 °F (-10 to 35 °C)

Physical Features

Dimensions (L x W x H)	.3.7 x 10.6 x 3.2 in (9.4 x 26.9 x 8.1 cm) - with battery
Weight	.3.2 lbs (.1.5 kg)
Enclosure & Protection	Aluminum housing; protection rating IP53 according to IEC 60529 variants7,8,9,10 IP68 according to IEC 60529; 10 m; 8 h

