

FLIR *identiFINDER*™ R400

Handheld Spectroscopic Radiation Detection & Identification



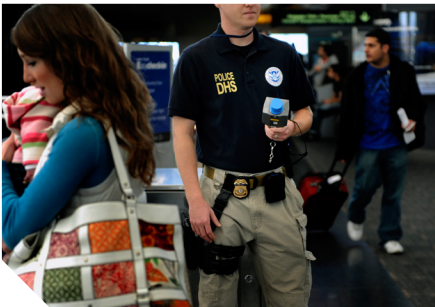
The FLIR identiFINDER R400 is the most widely deployed handheld radiation detection and identification product in the world. At half the size and weight of competitive radio-isotope identification devices (RIID), the R400 helps operators feel comfortable using the instrument even in the most hazardous 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

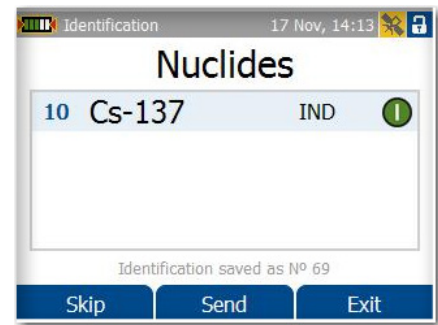
FEATURES & BENEFITS

- Field-proven with over 20,000 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



Specifications

identiFINDER R400	
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-Müller
Energy Range (Gamma)	20 keV - 3 MeV
Gamma Spectrum	1024 channels; 3 MeV
Dose Rate / Accuracy (Cs-137)	0 nSv/h - 10.00 mSv/h (0 nrem/h - 1.0 rem/h); ±30 %
Scintillator Dose Rate Range	0 nSv/h - 500 µSv/h (0 nrem/h - 50 mrem/h)
Geiger-Müller Dose Rate Range	100 µSv/h - 10 mSv/h (10 mrem/h - 1.0 rem/h)
Dose Range	0 nSv - 1 Sv (0 nrem - 100 rem)
Overload Dose Rate Range	10 mSv/h - 1 Sv/h (1.0 rem/h - 100 rem/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} ; Bluetooth® 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 variants ^{8,9,10} IP68 according to IEC 60529; 10 m; 8 h



HEADQUARTERS

FLIR Systems, Inc.
27700 SW Parkway Ave
Wilsonville, OR 97070

DETECTION SALES, AMERICAS

FLIR Detection, Inc.
2800 Crystal Drive, #330
Arlington, VA 22202
Phone: +1-877-692-2120
detection@flir.com

DETECTION SALES, APAC

FLIR Detection, Inc.
3 Pickering Street #03-49
Nankin Row
Singapore - 048660
Phone: +65-6822-1596
detection@flir.com

DETECTION SALES, EMEA

FLIR Detection, Inc.
Luxemburgstraat 2
2321 Meer
Belgium
Phone: +32 (0) 3665 5106
detection@flir.com

www.flir.com
NASDAQ: FLIR

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