TELEDYNE FLIR

IDENTIFINDER® R425

Next Generation Radionuclide Identification Device









The identiFINDER R425, the next generation of the most deployed radionuclide identification device (RID), offers 360-degree coverage so you can locate and measure gamma and neutron radioactive sources built with Teledyne FLIR's trusted algorithms with advanced heuristics and hybrid identification techniques.

The newest and latest updates to the R425 feature a new glass screen cover to boost its ruggedness, an increase of the GM tube to 1000 R/h adding a higher dose capability, and an LaBr detector offering higher resolution option providing a better energy resolution capability.

Operate the R425 quickly with the familiar identiFINDER user interface and 3-button control. When other systems fail in extremely high gamma fields, the identiFINDER R425 provides pinpoint accuracy and remains fully operational. The R425 provides an ideal balance of size, weight, and performance for surveying, emergency response, and environmental monitoring.

www.flir.com/r425

BETTER DETECTION IN ALL DIRECTIONS

With over 25,000 deployed RIDs, the R425 builds on a solid legacy of performance in every way.

- Threats come from every direction. The cubic detector design allows for high performance in all directions.
- Greater sensitivity with 75% larger detector, and 2X Neutron sensitivity.
- 15% lighter weight than the previous generation.
- The LaBr detector option will provide ≤ 4.5% resolution.

POWER THROUGH YOUR MISSION

Unparalleled ruggedness, power flexibility, and usability means the R425 will go the distance and complete the mission with you.

- Drop on the ground, submerge it in water. It will survive. Fully enclosed solid-state detector. Ergonomic design and rubberized grip.
- Sunlight readable screen, even with polarized glasses. Internal battery lasts up to 12 hours. Need more? Hot swappable batteries (rechargeable AND disposables) add 2 hours of use. Ready in 15 seconds or less from a cold start.
- Same tried and trusted interface as the R400. Pick it up and go.

SITUATIONAL AWARENESS WHEN YOU NEED IT

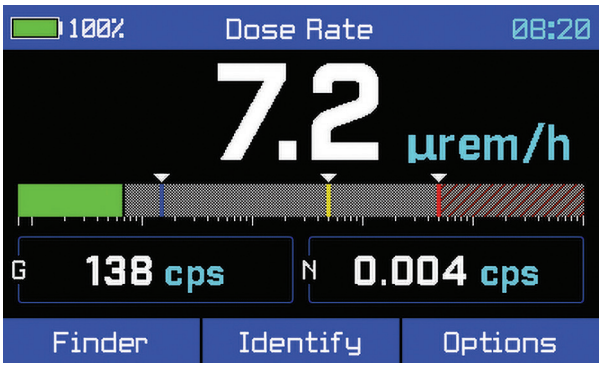
When threat detection occurs, getting results communicated as quickly as possible is critical. R425 makes it easier than ever before, no matter the method.

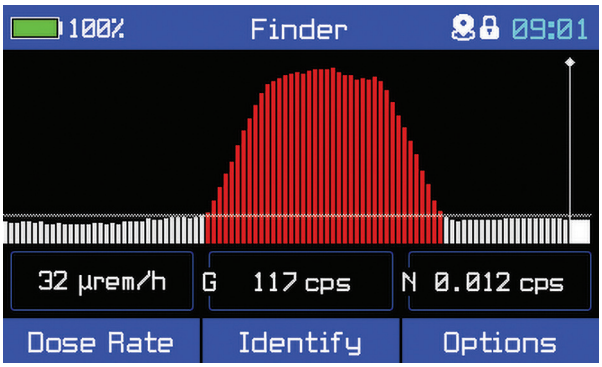
- Remote viewing, operation, and reachback over Bluetooth via available app (iOS/Android) or over USB-C via FLIR's intuitive Web Interface.
- Universal API to enable integration with user deployed networks such as Mobile Field Kit, ATAC, Sigma Edge, Safe Environment Gateway, and others.
- Wi-Fi and Cellular connectivity via optional adapter.

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SPECIFICATIONS

identiFINDER R425	
Technology	Radionuclide identification device (RID); Gamma and Gamma/Neutron Models
Gamma Detector - NaI (Tl) (G & NG Models)	1.77 x 1.77 x 1.77 in (45 x 45 x 45 mm) cubic detector with silicon photomultiplier (SiPM)
Gamma Detector - LaBr3(Ce) (LG & LNG Models)	1.4 x 1.4 x 1.4 in (35 x 35 x 35 mm) cubic detector with silicon photomultiplier (SiPM)
High Dose Rate Gamma Detector	Energy Compensated Geiger Müller (GM) Tube
Neutron Detector - ZnS (GN & LGN models only)	27 x 58 x 5 mm moderated panels (2 each)
Energy Range (Gamma)	20 keV - 3 MeV
Gamma Sensitivity (Cs-137)	1610 cps/uSv/h (G & GN models) 1000 cps/uSv/h (LG & LGN models)
Neutron Sensitivity	≥ 15 cps/nv (GN & LGN models only)
Gamma Spectrum Length	1024 channels
Dose Rate Range (Cs-137)	10 µrem/h – 1 rem/h ± 10%, 100 nSv/h – 10 mSv/h ± 10%
Dose Rate Range ID Mode (Cs-137)	0.1 µrem/h – 5 mrem/h 1 nSv/h – 50 µSv/h
High Dose Rate Range	1 - 100 rem/h ± 30% 10 mSv/h - 1 Sv/h ± 30%
Stabilization	Sourceless gain stabilization
Linearization	Real time linearization of gamma energy
Typical Resolution	≤ 7% FWHM at 662 keV (20°C) (G&GN models) ≤ 4.5% FWHM at 662 keV (20°C) (L&LN models)
Sampling & Analysis	
Sample Introduction	Absorption of EM gamma and neutron emissions
Threats	Detects neutron and gamma radiation emitted from natural occurrences in the environment, special nuclear material, industrial, or medical material
Nuclide Identification	According to ANSI N42.34
Library Categories	SNM, IND, MED, NORM
Time to Identification	From a few seconds to a few minutes
System Interface	
Display & Alerts	2.7" diagonal (400x240 pixels) screen; sunlight readable; visible through polarized glasses
Communications	USB-C (2x), Bluetooth (BLE 5.0)
Data Storage	8GB internal memory
Training Requirements	<10 mins for operator; 1 hour for advanced user
Software	Onboard webserver software
Data File Format	According to ANSI N42.42
Power	
Input Voltage	100-240 AC (wall adapter and USB-C cable supplied)
Battery Specification	Internal Li-ion cells; additional user-selectable external battery (1 each 16650 Li-ion or 2 each CR123) ; hot-swappable
Cold Start Time	≤20 seconds from cold start
Environmental	
Operating Temp	-22 to 140 °F (-30 to 60 °C)
Operating Humidity	0 to 100%
Storage Temperature	0 to 140 °F (0 to 60 °C)
Physical Features	
Dimensions (L x W x H)	9.3 x 3.9 x 3.7 in (235 x 100 x 95 mm)
Weight	≤2.6 lbs (≤1.2 kg)
Enclosure & Protection	Injection molded housing with overmold; rating IP67 according to IEC 60529; MIL-STD 810g Salt / Fog compliant





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

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