

IdentiFINDER® R425 UW

Next Generation Radionuclide Identification in Any Environment



The identiFINDER R425 UW builds on the legacy and capabilities of the identiFINDER R400 and identiFINDER R425. Combining the powerful sensing capabilities of the R425 with underwater operation and ruggedness of the R400.

The R425 UW is IP 68 rated to a depth of 20 meters (66 feet) and is MIL STD 810G (Salt Fog) compliant. It is three and a half times more gamma sensitive and more than two times more neutron sensitive than its underwater predecessor, the R400. The cubic detector provides all round detection capability and optimal angular dependance, ensuring an accurate dose rate, across the entire energy range, even from an angle! This ensures that nothing goes undetected, even underwater.

Operate the R425 UW quickly with the familiar identiFINDER user interface and 3-button control and Teledyne FLIR's trusted algorithms with advanced heuristics and hybrid identification techniques. The R425 UW provides an idea balance of size, weight, and performance in any environment, even underwater.

BETTER DETECTION IN ALL DIRECTIONS

With over 25,000 deployed RIDs, the R425 UW 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 $\leq 4.5\%$ resolution.

OPERATE IN ANY ENVIRONMENT

This handheld detector is IP 68 rated to 20 meters (66 feet) and ready for any environment.

- Assist in dive operations to search, locate, and identify radioactive materials from sunken vessels or containers.
- For use in maritime environments to protect the device from falling into water.
- Optimal for tropical climates with high humidity
- Easy to decontaminate

SITUATIONAL AWARENESS WHEN YOU NEED IT

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

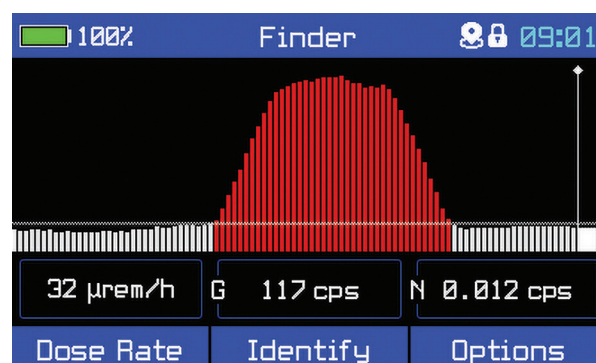
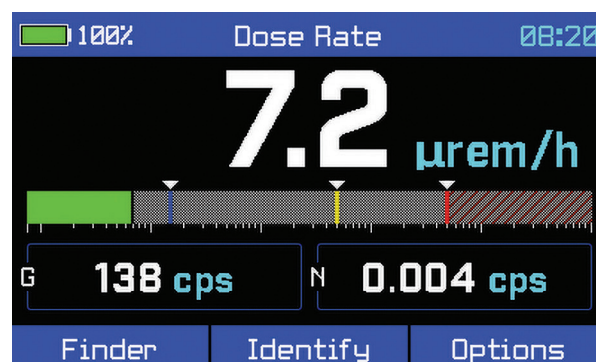
- Remote viewing, operation, and reachback over Bluetooth via available app (iOS/Android) or over USB-C via FLIR's intuitive Web Interface.
- Universal API to enable integration with user deployed networks such as Mobile Field Kit, ATAK, Sigma Edge, Safe Environment Gateway, and others.
- Wi-Fi and Cellular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



www.flir.com/R425-UW

SPECIFICATIONS

identiFINDER R425 UW		Power	
Technology	Radionuclide identification device (RID); Gamma and Gamma/Neutron Models	Input Voltage	100-240 AC (wall adapter and USB-C cable supplied)
Gamma Detector - NaI (TI) (G & NG Models)	1.77 x 1.77 x 1.77 in (45 x 45 x 45 mm) cubic detector with silicon photomultiplier (SiPM)	Battery Specification	Internal Li-ion cells; additional user-selectable external battery (1 each 16650 Li-ion or 2 each CR123); hot-swappable
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)	Cold Start Time	≤20 seconds from cold start
High Dose Rate Gamma Detector	Energy Compensated Geiger Müller (GM) Tube	Environmental	
Neutron Detector - ZnS (GN & LGN models only)	27 x 58 x 5 mm moderated panels (2 each)	Operating Temp	-22 to 140 °F (-30 to 60 °C)
Energy Range (Gamma)	20 keV - 3 MeV	Operating Humidity	0 to 100%
Gamma Sensitivity (Cs-137)	1610 cps/uSv/h (G & GN models) 1000 cps/uSv/h (LG & LGN models)	Storage Temperature	0 to 140 °F (0 to 60 °C)
Neutron Sensitivity	up to 15 cps/nv	Physical Features	
Gamma Spectrum Length	1024 channels	Dimensions (L x W x H)	9.3 x 3.9 x 3.7 in (235 x 100 x 95 mm)
Dose Rate Range (Cs-137)	10 µrem/h – 1 rem/h ± 10%, 100 nSv/h – 10 mSv/h ± 10%	Weight	≤2.6 lbs (≤1.2 kg)
Dose Rate Range ID Mode (Cs-137)	0.1 µrem/h – 5 mrem/h 1 nSv/h – 50 µSv/h	Enclosure & Protection	Injection molded housing with overmold; rating IP68 according to IEC 60529; MIL-STD 810g Salt / Fog compliant
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		



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

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