

IDENTIFINDER® R425

Next Generation Radionuclide Identification Device



The identiFINDER R425 is the next generation of the most deployed radionuclide identification device (RID), offering 360-degree coverage so you can locate and measure gamma and neutron radioactive sources with confidence. It builds on Teledyne FLIR's trusted algorithms with advanced heuristics and hybrid identification techniques. With the familiar identiFINDER user interface and 3-button control, you can operate the R425 quickly, communicate results, and take command of any situation, in any environment, remotely. When other systems fail in extremely high gamma fields, the identiFINDER R425 provides pinpoint accuracy and remains fully operational. The identiFINDER R425 goes the distance with balanced ergonomic design, unparalleled ruggedness, flexible power management, and usability. The R425 provides an ideal balance of size, weight, and performance for various missions including 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

- New cubic detector design allows for high performance in all directions
- 3x more sensitive gamma detection (G)
- 2x more sensitive neutron detection (GN)
- Advanced heuristics and hybrid identification techniques
- Sourceless stabilization
- 15% lighter weight than previous generation

POWER THROUGH YOUR MISSION

Unparalleled ruggedness, flexible power management, and usability to go the distance

- Internal battery lasts up to 12 hrs; additional power options include disposable or rechargeable batteries that are hot swappable and user-replaceable
- Ready in ≤20 seconds from cold start
- Fully enclosed solid-state detector
- IP67-rated
- Balanced, ergonomic design
- Sunlight readable screen; visible through polarized glasses

SITUATIONAL AWARENESS AND SUPPORT

R425 makes it easier than ever to quickly communicate results, no matter the method

- Established Teledyne FLIR GUI and 3-button control
- Remote data viewing, operation, and reach back
- Dual USB-C ports and trusted web interface
- Teledyne FLIR RAD Mobile App
- Universal API enables integration with user deployed networks (Mobile Field Kit, ATAK, Sigma Edge, Safe Environment Gateway, etc.)
- Built-in Bluetooth and GPS

SPECIFICATIONS

identiFINDER R425

Technology	Radionuclide identification device (RID); Gamma and Gamma/Neutron Models
Gamma Detector - NaI (TI)	1.77 x 1.77 x 1.77 in (45 x 45 x 45 mm) cubic detector with silicon photomultiplier (SiPM)
Neutron Detector - ZnS (GN model only)	27 x 58 x 5 mm moderated panels (2 each)
Energy Range (Gamma)	20 keV - 3 MeV
Gamma Sensitivity (Cs-137)	1610 cps/μSv/h
Neutron Sensitivity	> 4 cps/nv
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
Overload Dose Rate Range	>1 rem/h, >10 mSv/h
Stabilization	Sourceless gain stabilization
Linearization	Real time linearization of gamma energy
Typical Resolution	≤ 7% FWHM at 662 keV (20°C)
Service Interval	5-year factory maintenance

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

Power

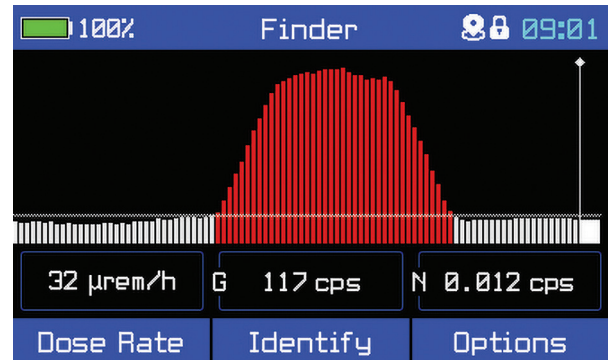
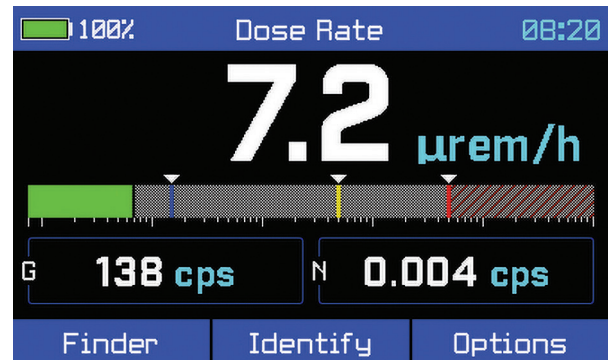
Input Voltage	100-240 AC (wall adapter and USB-C cable supplied)
Battery Specification	Internal Li-ion cells; additional user-selectable external battery (1 each 16650 Li-ion or 2 each CR123); hot-swappable
Cold Start Time	≤20 seconds from cold start

Environmental

Operating Temp	-22 to 140 °F (-30 to 60 °C)
Operating Humidity	10 to 93%, non-condensing
Storage Temperature	14 to 95 °F (-10 to 35 °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



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Revised on 11/11/21
identiFINDER R425_Datasheet-LTR 21-1110