

### **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 ≤ 3.5% 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.



#### **SPECIFICATIONS**

			1425

Technology

Gamma Detector - Nal (TI) (G & NG Models)

Gamma Detector - LaBr3(Ce) (LG & LNG Models)

High Dose Rate Gamma Detector

Neutron Detector - ZnS (GN & LGN models only)

Energy Range (Gamma)

Gamma Sensitivity (Cs-137)

Neutron Sensitivity Gamma Spectrum Length

Dose Rate Range (Cs-137)

Dose Rate Range ID Mode (Cs-137)

Overload Dose Rate Range

Stabilization

Linearization

Typical Resolution

Service Interval

Sampling & Analysis

Sample Introduction

Threats

Nuclide Identification

Library Categories

Time to Identification System Interface

Display & Alerts

Data Storage

Power

Communications

Training Requirements

Software

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

Data File Format

**AMERICAS** 

7055 Troy Hill Dr. Suite 300

Elkridge, MD 21075 USA

**APAC** 

10 Kallang Avenue #09-10 Aperia Tower 2 Singapore 335910

Radionuclide identification device (RID); Gamma and

1.77 x 1.77 x 1.77 in (45 x 45 x 45 mm) cubic detector with silicon photomultiplier (SiPM)

1.4 x 1.4 x 1.4 in (35 x 35 x 35 mm) cubic detector with

silicon photomultiplier (SiPM)

Energy Compensated Geiger Müller (GM) Tube 27 x 58 x 5 mm moderated panels (2 each)

20 keV - 3 MeV

Gamma/Neutron Models

1610 cps/uSv/h (G & GN models)

1000 cps/uSv/h (LG & LGN models)

> 4 cps/nv

1024 channels

 $10 \mu rem/h - 1 rem/h \pm 10\%$  $100 \text{ nSv/h} - 10 \text{ mSv/h} \pm 10\%$ 

 $0.1 \mu rem/h - 5 mrem/h$ 

 $1 \text{ nSv/h} - 50 \mu \text{Sv/h}$ 

1 - 1000 rem/h

10 mSv/h - 10 Sv/h

Sourceless gain stabilization

Real time linearization of gamma energy

≤ 7% FWHM at 662 keV (20°C) (G&GN models)  $\leq$  3.5% FWHM at 662 keV (20°C) (L&LN models)

5-year factory maintenance

Absorption of EM gamma and neutron emissions

Detects neutron and gamma radiation emitted from

natural occurrences in the environment, special nuclear material, industrial, or medical material

According to ANSI N42.34 SNM, IND, MED, NORM

From a few seconds to a few minutes

2.7" diagonal (400x240 pixels) screen; sunlight readable;

visible through polarized glasses

USB-C (2x), Bluetooth (BLE 5.0)

8GB internal memory

<10 mins for operator; 1 hour for advanced user

Onboard webserver software

According to ANSI N42.42

**EMEA** 

Luxemburgstraat 2 2321 Meer Belgium

100-240 AC (wall adapter and USB-C cable supplied) Input Voltage

**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)

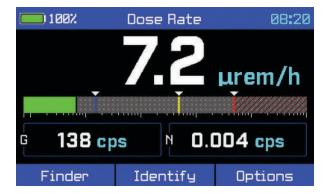
Weight

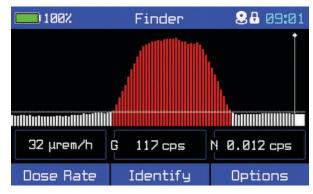
**Enclosure & Protection** 

9.3 x 3.9 x 3.7 in (235 x 100 x 95 mm)

≤2.6 lbs (≤1.2 kg)

Injection molded housing with overmold; rating IP67 according to IEC 60529; MIL-STD 810g Salt / Fog compliant





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