TELEDYNE FLIR

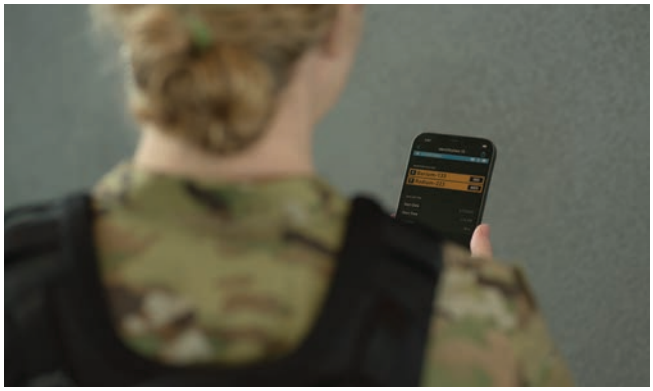
IDENTIFINDER® R700

Highly Sensitive, Lightweight
Backpack Radiation Detector (BRD)









The identiFINDER R700 Backpack Radiation Detector (BRD) offers a hands-free capability for broad-area radiological search and monitoring missions. The identiFINDER R700 provides the user all that is required to successfully perform wide-area searches quickly, efficiently and confidently. Providing the ultimate versatility, the identiFINDER R700 can be placed for stationary monitoring at makeshift checkpoints, fence-line monitoring, and other temporary screening locations. When coupled with radiation monitoring software, the identiFINDER R700 can be used as a fixed-site monitoring tool.

INTERROGATE AND ISOLATE RADIOLOGICAL THREATS QUICKLY

Building on the award-winning identiFINDER R440, the R700 offers an advanced spectroscopic algorithm and detection techniques scaled up to a man-portable backpack for increased sensitivity and speed

- Detect harmful neutrons with NaI or count them with our dual-mode NaIL detector without the need for an additional neutron detector
- Large 2" x 4" x 8" detector allows for rapid detection and identification of even the smallest radiation sources; source-less "quantum gain" stabilization improves data collection, reducing false positives
- 360° EasyFinder™ mode collects and interprets data to pinpoint radiation at the source, enabling faster location of threats

DEPLOY AT THE SCENE OR ON THE MOVE, COVERTLY

The R700's capabilities configured as a backpack or a stationary device allow multiple mission sets from wide area searches to temporary check points

- Ergonomic design for all day operator wear- the long battery life and balanced load are designed for extended missions
- Unmarked backpack form-factor and mobile phone-based user interface allow operators to detect radiological threats covertly, even in a crowd
- Included tripod mount enables stationary deployment for remote radiation monitoring. The rugged and weatherproof IP67 design operates in the harshest weather conditions

NETWORK DEVICES WITH MULTI-DEVICE MODE

Use multi-device mode with the R700 to view and control up to 4x R700's from one Android or iOS device, using the built-in Wi-Fi

- Ideal for utilizing at checkpoints, maritime inspections, cargo/freight monitoring, airport and event monitoring, source recovery, and more
- Networking devices provides directionality for detection and greater coverage over a larger area
- Multiple R700's linked together reduces the time to locate and identify any potential radiological threat

SPECIFICATIONS

System Overview	
Technology	Backpack Radiation Detector (BRD)
Threats	Detects gamma and/or neutron radiation emitted from natural occurrences in the environment, special nuclear material, industrial, or medical material

Technology	
Detector	2 x 4 x 8" NaIL™ (NaI:Tl, Li) gamma-neutron or 2 x 4 x 8" NaI(Tl) gamma-neutron indication
Typical Resolution	≤8.5% FWHM at 662 keV (20 °C)
Stabilization	Sourceless "Quantum gain" stabilization (patents pending)
Energy Range [Gamma]	10 keV to 10 MeV (All detectors)
Dose rate range (Cs-137)	0.001 mrem/h - 10 rem/h (0.01 - 100,000 µSv/h)
Dose rate range ID mode (Cs-137)	0.001 - 0.5 mrem/h (0.01 - 5 µSv/h)
Dose rate overload range (Cs-137)	0.002 - 10 rem/h (20 - 100,000 µSv/h)
Gamma Sensativity (Cs-137)	165,000 cps/mrem/h (16,500 cps/uSv/h)
Neutron Sensativity	90 cps/nv
Linearization	Real-time linearization of gamma energy
Service Interval	5 year factory maintenance recommended, not required
Standards Compliance	ANSI N42.53 BRD standard fully compliant ANSI N42.42 data format fully compliant IEC 62694 backpack standard fully compliance IEC 62706 BRD environmental compliant IEC 62755 data format fully compliant

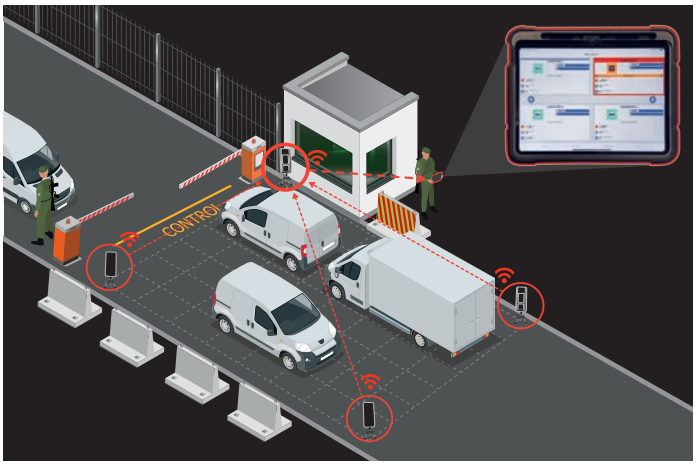
Sampling & Analysis	
Library Categories	SNM, SNMR, IND, MED, NUC, NORM, UKN
Nuclide Identification	Exceeds ANSI N42.53
Sample Introduction	Absorption of EM gamma (NaI) or gamma and neutron emissions (NaIL)
Time to Alarm	From a few seconds to minutes
Time to ID	Depends on gamma exposure; typically < 2 min

Environmental	
Operating Temperature	-4 to 122 °F (-20 to 50 °C)
Operating Humidity	0 to 100%
Storage Temperature	-4 to +104 °F (-20 to +40 °C)
Protection Rating	IP67 according to IEC 60529 (3.3' (1 m) submerged)

System Interface	
Communication	USB 2.0, USB OTG; Bluetooth® Class BLE 4.0 and 2.1 with EDR ≤30m range (can be disabled at manufacture)
Data Storage	32GB internal memory
GPS (removable)	72-channel u-blox M8 engine
Software	On-board web server software
Training Requirements	<10 mins for operator; 1 day for advanced user

Power	
Battery Specs	2x rechargeable Li-Ion smartpacks (hot-swappable)h runtime per Li-Ion smartpack; > 9 h runtime with single battery pack > 18 h runtime with dual batteries
Input Voltage	100-240V AC (wall adapter and USB cable supplied)
Cold Start Time	<5 mins from cold start

Physical Features	
Enclosure and Protection	Impact resistant plastic; protection rating IP67 according to IEC 60529
Dimensions [L x W x H]	≤17 x 12 x 20 in (≤43.2 x 30.5 x 50.8 cm)
Weight	≤22 lbs (≤10 kg)



IdentiFINDER R700 Multi-Device Mode

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

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