identiFINDER R300

Spectroscopic Pager for Radiation Detection and Identification

The FLIR identiFINDER R300 is the world's highest performing, pager-sized Spectroscopic Personal Radiation Detector (SPRD). It provides continuous detection capability and full threat identification.

The R300 can be deployed in place of existing Personal Radiation Detectors (PRD) with the added capability of identifying the radioisotope present. The simple two-button user interface facilitates expedited threat response. Visible, audible, and tactile alarms rapidly alert the operator via the easy-to-read color display.

On-board Bluetooth®, web server, and GPS technologies make interagency communication easier than ever. From One Touch Reachback™ to reliable radioisotope identification, the R300 is the most advanced SPRD available.

With enough detector resolution to resolve complex spectra and enough stopping power to identify the full ANSI N42.48 library, the identiFINDER R300 is the ideal solution for belt-worn passive scanning, security checkpoints, border patrol, and first response.

Custom Applications

- Passive scanning.
- Checkpoint screening.
- Border patrol.
- Emergency response.

Features and Benefits

- Wearable and rugged (1.5-m drop tested).
- Gamma and neutron detection.
- Identifies ANSI N42.48 library.
- High resolution and low false alarms.
- Rapid visible, audible, and tactile alerts.
- Fast two-minute start up.
- 5 year factory maintenance.

Technology

Technology	Spectroscopic personal radiation detector (SPRD)
Product Variants	Z[1] and ZH[2]
Gamma (CdZnTe)[1]	Three crystals 15 x 13 x 5 mm
Neutrons (He-3)[2]	15 x 54 mm
Energy Range (Gamma)	Identification channel 30 keV - 3 MeV
Gamma Spectrum	1024 channels; 3 MeV
Dose Rate / Accuracy (Cs-137)	≤100 nSv/h – 10 mSv/h (≤10 µrem/h – 1.0 rem/h); ±30 %
Overload Threshold	5 mSv/h
Neutron Sensitivity	2.6 cps/nv; ±20 %
Typical Resolution	≤3.5 % FWHM at 662 keV
Service Interval	5 year factory maintenance

Sampling and Analysis

Sample Introduction	Absorption of EM gamma or neutron emissions
Threats	Detects neutron or gamma radiation emitted from natural occurrences in the environment, special nuclear material, industrial, or medical material
Nuclide Identification	According to ANSI N42.48
Sampling and Analysis	From a few seconds to minutes

System Interface

Display and Alerts	Transflective color LCD
Communication	USB 2.0; mini-B socket; Bluetooth® ≤50m range (removable)
Data Storage	2GB internal memory; up to 600,000 spectrax 5 mm)
Training Requirements	<10 mins for operator; 1 day for advanced user
GPS (Removeable)	66-channel MediaTek MT3329 receiver; sensitivity ≥165 dBm
Software	On-board webserver software

Power

Input Voltage	100-240 VAC (wall and car adapters and USB cable supplied) (SPRD)
Battery Specs	Internal single cell Li-ion; ≥24h operational battery life; recharge ≤3h when using AC; recharge >5.5h when using USB
Cold Start Time	<2 mins from cold start

Environmental

Operating Temperature	4 to 122 °F (-20 to 50 °C)
Operating Humidity	10 to 93%
Storage Temperature	14 to 95 °F (-10 to 35 °C)

Physical Features

Dimensions (L x W x H)	3.3 x 7.0 x 12.5 cm – with battery
Weight	≤0.4 kg
Enclosure and Protection	Aluminum housing; protection rating IP63 according to IEC 60529

Specifications are subject to change without notice.
For the most up-to-date specifications, please visit www.flir.com

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