

HPRID

HIGH PERFORMANCE RADIOISOTOPE IDENTIFIER



Feature Highlights

- **Designed to rugged military Ground Mobile guidelines**
- **Advanced spectrum processing for superior radioisotope detection and identification**
- **Simplified user interface for spectral interpretation**
- **Compact size and lightweight**
- **Wireless capability**
- **Self-stabilizing**

The HPRID is a hand-held, portable, rugged and highly accurate radioisotope detector and identifier utilizing Symetrica's Discovery™ technology, licensed exclusively to Smiths Detection. Discovery technology features advanced spectrum processing and identification algorithms which transform a highly sensitive 2" x 2" Sodium Iodide [NaI(Tl)] detector into a high resolution spectrometer capable of identifying challenging isotopes. With these advanced algorithms, effective resolution is increased at 662 keV from 7% to 2% FWHM.

The identification performance exceeds all ANSI N42.34

requirements for bare, shielded and multiple isotopes. The on-board library comes standard with 39 radioisotopes classified and can be easily expanded.

The HPRID is easy to use while supplying the operator with simple, specific information for threat assessment. Applications include Customs inspection, border protection, radiological facilities/personnel monitoring, and emergency response.

HPRID

Cargo Inspection

The HPRID can be used in 'survey' mode to detect radioactive sources and then clearly identify whether the energy signature corresponds to harmless naturally occurring radiation or a more dangerous source, such as special nuclear materials or those consistent with a "dirty bomb". For each source identified the HPRID

provides the identification, confidence level of the identification made, and a risk assessment describing the source as innocent, suspicious or a threat.

Emergency Response

In an emergency situation, radiological response teams can quickly and accurately determine whether or not

a source is present and the threat level in order to take appropriate actions. The wireless capability can provide those in a remote Command Center access to information such as the threat identified, source spectra and location.

Technical Data

General Specifications

Radiation Detection Technologies

2" x 2" Sodium Iodide (gamma spectrometer)
Moderated He³ tube (neutron)
Geiger-Mueller (high dose-rate gamma)
25 keV – 3 MeV (gamma)
NaI: 6 nSv/h – 60 uSv/h
GM: 60 uSv/h – 3000 mSv/h

Sensitivity
Dose Rate Range

Library

On-board library comes standard with 39 radioisotopes classified according to ANSI N42.34; easily expandable.

Performance

Enhanced NaI detector performance, increasing effective resolution at 662 keV from 7% to 2% FWHM.

Environmental & Safety

Operating Temperature: -4°F to 122°F (-20°C to +50°C); Shock and Vibration: ANSI N42.34; Drop: 3 ft.. (0.91 m) onto bare concrete; % Relative Humidity: 95%;

Connectivity/Data Output

Safety UL 61010-1; EMC: ANSI N42.34, CSA 610610.1, CE
Wireless 802.11g
USB 2.0
Ethernet 802.3

Calibration

Automatic energy stabilization and calibration, eliminating the need for field calibration
3.7" color TFT transfective LCD

Display
Alarm Indications

Audio
Visual (discrete ultra-bright LEDs for alarm indication)
Vibratory

Protection
Data Storage
Power
Battery

Fresh water resistant, splash proof, IP65 (ANSI/IEC 60529) rating
2GB internal memory for spectral storage
External AC adapter 120/240V 50/60Hz, 12VDC (10-22Volts) adapter
4 hours under normal operating conditions. Battery is rechargeable in- and outside of unit.

Dimensions
Weight
Languages
Accessories Included

13" x 6" x 9" (33 x 15,24 x 22,7 cm)
7.9 lbs. (3,6 kg)
English, French, German and Spanish
Cushioned sling with strap (carrying case)
Additional battery pack
AC adapter/battery charger
USB cables
Alkaline battery pack

Options

USA

Homeland Security & Critical Infrastructure

Smiths Detection Inc.
30 Hook Mountain Road
PO Box 410
Pine Brook, NJ 07058 USA
T: +1 973 830 2100
TF: 1 800 626 2440
F: +1 973 830 2200
USinfo@smithsdetection.com

Emergency Response Sales

Smiths Detection - Danbury
21 Commerce Drive
Danbury, CT 06810 USA
T: +1 203 207 9700
F: +1 203 207 9780
danbury@smithsdetection.com

US Military Sales

Smiths Detection
1601 North Kent Street, Suite 200
Arlington, VA 22209 USA
T: +1 703 682 5700
F: +1 703 682 56991
militaryus@smithsdetection.com

US Military Programs

Smiths Detection - Edgewood Inc.
2202 Lakeside Blvd.
Edgewood, MD 21040 USA
T: +1 410 510 9100
F: +1 410 510 9491
militaryus@smithsdetection.com

Service

Smiths Detection Service Operations
30 Technology Dr.
Warren, NJ 07059 USA
T: +1 908 222 9100
F: +1 908 222 1557
Toll-free: +1 800 297 0955
sd.service@smithsdetection.com

International

Germany

Smiths Heimann GmbH
Im Herzen 4
65205 Wiesbaden
T: +49 (0)611 9412 0
F: +49 (0)611 9412 229
mail.germany@smiths-heimann.com

UK

Smiths Detection International UK
459 Park Ave.
Bushey, Watford
Herts WD23 2BW
T: +44 (0) 1923 294400
F: +44 (0) 1923 294401
uk@smiths-heimann.com

Canada & Latin America

Smiths Detection Montréal Inc.
3225 Francis-Hughes, Suite 100
Laval, (QC) H7L 5A5 Canada
T: +1 450 967 0010
F: +1 450 967 7444
mail.canada@smiths-heimann.com

