PDS-100G/GN/ID

Spectrometric Personal Radiation Detector

Detection, Search, Identification of nuclear material for Homeland Security applications

- **Small, rugged, compact, user-friendly**
- **High sensitivity and fast response time**
- **Embedded spectra acquisition and identification**
- **Visual, audio and vibration alarms**
- **Wireless communication interface**

The PDS-100G/ID and PDS-100GN/ID are the most ultimate evolution of the gamma and gamma/neutron radiation detectors offering embedded spectrum acquisition and identification.
These sensitive pocket-sized devices are designed to detect, locate, quantify and identify radioactive sources to discriminate on the spot, Naturally occurring radioactive Material (NORM), main medical isotopes (Medical) against industrial sources or Special Nuclear Materials (SNM). High sensitivity provides better spectra in a shorter time. Isotopes list is displayed and spectra's are memorized to be transmitted.
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PDS-100G/ID and PDS-100GN/ID have been designed specially for First Responders, Law Enforcement, Customs inspectors and for Personnel and Site security in critical infrastructures.

Detection

Detector gamma CsI(Tl) 400 cps per µSv/h for 137Cs
Detector neutron LiI(Eu) (GN version only)
Gamma dose rate display 0.01 µSv/h to 100 µSv/h (1 µR/h to 10 mR/h)
Gamma count rate display: 0 to 99 999 cps
Neutron count rate display: 0.0 to 999 cps
Gamma alarm response time:
Neutron alert response mean time to detect 2.5 n/s/cm^2 of ^{252}Cf; 2 secs.
Standard threshold. : 0.5 µSv/h step, alarm within 1 sec.
Sensitive threshold. :0.05 µSv/h step, alarm within 3 secs.

Spectrometry and Identification

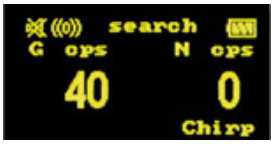
- Search : 1 second integration time with chirp
- 512 / 1024 channels spectra : 30keV to 1.7 MeV
- Preset time and or counts: resume capability
- Identification by NMD algorithm
- Up to 4 isotopes mixed
- Detect ability grade, unknown or ID unsure indication
- Identification time is typically 1 minute at 1 µSv/h
- Designed to exceed coming ANSI N42-48 SPRD standard

Detection Mode

NORM	^{40}K, ^{226}Ra and daughters, ^{232}Th and daughters
Medical	^{18}F, ^{5}Cr, 67Ga, ^{75}Se,^{99}mTc, ^{111}In, ^{123}I,^{131}I,^{201}Tl
Industrial	^{22}Na, ^{57}Co, ^{60}Co, ^{133}Ba, ^{137}Cs, ^{152}Eu, ^{192}Ir, ^{241}Am
SNM	^{235}U, ^{238}U, ^{239}Pu

•Functional Features

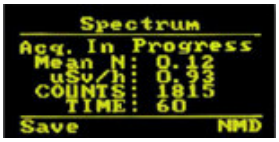
- Detection; Search; Identification mode
- Source indication alarm and danger alarm
- Visual, audible and silent alarms (vibration, earphone)
- Easy-to-read display (OLED technology
- Memory of 100 512 ch. spectra and >1000 events
- IRDA and Bluetooth® technology communication



Search Mode

Electrical & Mechanical characteristics

- Power supply: 2x AA batteries (Alkaline or Ni-MH)
- Battery Life time: > 100 hours (with alkaline batteries)
- Dimensions (l x w x h): 123 x 74 x 43 mm
  4.84 x 2.91 x 1.69 inches
- Weight: 300 gr / 10.58 oz. with battery



Acquisition in Progress

Environmental Characteristics

- Temp Range: -20ºC to 50ºC (-4ºF to 122ºF)
- Humidity: 95% at 35ºC (95ºF)
- EMI, shock, vibration and drop resistant

NMD Result

Accessories

- PDSmass software for remote display, spectra and historic retrieve and parameters settings
- SMI software for spectra analysis and identification replay
- Silicon protection, pouch with belt clip
- External power supply / battery charger
- Tri-band GSM option
- Interface to RS232 or to USB

Model No: 4-0053ID

ROTEM INDUSTRIES reserves the right to change specifications without advance notice

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