PDS-100G-GN/ID

Spectrometric Personal Radiation Detector

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 Occuring Radioactive Material (NORM) and medical isotopes against industrial sources or Special Nuclear Materials.

High sensitivity provides better spectra in a shorter time. Fully automated acquisition and identification as well as manual modes are provided.

Identfication results are displayed as a list of isotopes with categories and confidence levels. Spectra and ID results are memorized for later transmission.

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.

FEATURES

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

- Small, rugged, compact, user-friendly
- High sensitivity and fast response time
- Embedded identification, automated & manual mode
- Visual, audio and vibration alarms
- Wireless communication interface

VERSIONS:

- PDS-100G/ID: Gamma version
- PDS-100GN/ID: Gamma and Neutron version

health physics
A Mirion Technologies Division

Featuring:
MGP INSTRUMENTS

DETECTION

- Detector gamma CsI(Tl): ≥ 400 cps per µSv/h for ^{137}Cs
- Detector neutron LiI(Eu) (GN version only)
- Gamma dose rate display 0.01 µSv/h to 100 µSv/h (1 µrem/h to 10 mrem/h)
- Gamma count rate display: 0 to 99 999 cps
- Neutron count rate display: 0.0 to 999 cps
- Gamma alarm response time:
- Standard threshold: 0.5 µSv/h step, alarm within 1 s
- Sensitive threshold: 0.05 µSv/h step, alarm within 3 s
- Neutron alert response time: mean time to detect 20000 n/s Cf252 at 10 cm: ≤2 sec.

SEARCH

- 1s integration time with chirp

SPECTROMETRY AND IDENTIFICATION

- 512 / 1024 channels spectra : 30keV to 1.7 MeV
- Automated alarm triggered mode with auto confirmation
- Manual mode with preset time and/or counts and resume capability
- Identification by NMD algorithm
  - up to 4 isotopes mixed
  - detectabiliby grade, unknown or ID unsure indication
  - identification time at 1 µSv/h typical 1 minute
  - designed to exceed ANSI N42-48 SPRD standard

NORM	**40K, 226Ra and daughters, 232Th and daughters**
Medical	18F, 51Cr, **67Ga**, 75Se, **99mTc**, 111In, **123I, 131I, 201Tl**
Industrial	22Na, 57Co, 60Co, 133Ba, 137Cs, 152Eu, 192Ir, 241Am
SNM	**235U, 238U, 239Pu**

In **bold,** isotopes addressed by ANSI for SPRD

FUNCTIONAL FEATURES

- Detection, search and/or identification mode
- Source indication alarm and danger alarm
- Visual, audible and silent alarms (vibration, earphone)
- Easy-to-read display (OLED technology)
- Memory of 100/50 512 ch/1024 ch. spectra and >1000 events
- IRDA and Bluetooth® technology communication

ELECTRICAL & MECHANICAL CHARACTERISTICS

- Power supply: 2 x AA batteries (Lithium, Alkaline or Ni-MH); lifetime typical 100 hours
- Dimensions (l x w x h): 123 x 74 x 43 mm (4.84 x 2.91 x 1.69 in); weight: 300 g (10.58 oz)

ENVIRONMENTAL CHARACTERISTICS

- Temperature range:- 20°C to 50°C (-4°F to 122°F) ID: -15°C to +45°C (5°F to 115°F)
- EMI, shock, vibration, drop and water resistant

ACCESSORIES

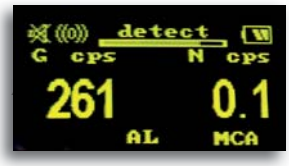
- PDSmass software for remote display, spectra and historic retrieve, parameters settings
- SMI software for spectra analysis and identification replay
- Silicon protection
- Belt Clip
- Pouch with belt clip
- External power supply / battery charger

Detection mode screen

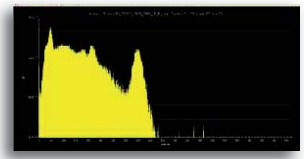
Manual ID in progress

Search mode screen

NMD result screen



Auto ID in progress


Spectra view with PDSmass

MIRION TECHNOLOGIES Health Physics Division

www.mirion.com
144215EN-B

Mirion Technologies (MGPI) Inc
5000 Highlands Parkway
Suite 150
Smyrna Georgia 30082
USA
T +1.770.432.2744
F +1.770.432.9179

Mirion Technologies (MGPI) SA
BP 1
F-13113 Lamanon
France
T +33 (0) 4 90 59 59 59
F +33 (0) 4 90 59 55 18

Mirion Technologies (RADOS) Oy
P.O. Box 506
FIN-20101 Turku
Finland
T +358 2 468 4600
F +358 2 468 4601

Mirion Technolgies (RADOS) GmbH
Ruhrstrasse 49
DE-22761 Hamburg
Germany
T +49 (0) 40 851 93-0
F +49 (0)40 851 93 256