

PDS-100G/GN-ID

Pocket Radiation Detector, Search & Identify



FEATURES...

- small, rugged, compact, user-friendly
- high sensitivity and fast response time
- embedded identification, automated & manual mode
- visual, audio and vibration alarms
- wireless communication interface
- detection; search; identification mode
- source indication alarm and danger alarm
- easy-to-read display (OLED technology)
- 100 512 ch/50 1024 ch. spectra and >1000 events
- IRDA and Bluetooth® technology communication



PDS-100G/GN-ID Spectrometric Pocket 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), main medical isotopes against industrial sources or Special Nuclear Materials. High sensitivity provides better spectra in a shorter time. Isotopes list is displayed and spectra are retained in memory for transfer to computer.

PDS-100G/ID and PDS-100GN/ID have been designed specially for First Responders, Law Enforcement, Customs Inspectors, Border Patrol and for Personnel and Site security in critical infrastructures.

TECHNICAL SPECIFICATIONS:

Detection

- detector gamma CsI(Tl) 400 cps per $\mu\text{Sv/h}$ for ^{137}Cs
- detector neutron LiI(Eu) (GN version only)
- gamma dose rate display 0.01 $\mu\text{Sv/h}$ to 100 $\mu\text{Sv/h}$ / 1 $\mu\text{R/h}$ 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:
 - standard threshold: 0.5 $\mu\text{Sv/h}$ step, alarm within 1 s
 - sensitive threshold: 0.05 $\mu\text{Sv/h}$ step, alarm within 3 s
- neutron alert response time: mean time to detect 2.5 n/s/cm² Cf252 2 s

Search

- 1 second 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
- detectability grade, unknown or ID unsure indication
- identification time at 1 $\mu\text{Sv/h}$ typical 1 minute
- designed to exceed coming 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

Electrical & Mechanical Characteristics

- power supply: 2 x AA batteries (Lithium, Alkaline or Ni-MH); lifetime > 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 ; pouch with belt clip
- external power supply / battery charger
- tri-band GSM option
- interface to RS232 or to USB

