RanidPRO200

Radionuclide Identifier Backpack

New Improved Model Now Available!

- Better neutron detection sensitivity
- Longer battery life
- FZ-M1 Toughpad control unit
- Over 2kg lighter

- High performance tools for radionuclide search & identification
- Simple to operate - intuitive user interface
- Sophisticated professional tools made available for every user

Environics

For your SAFETY

RanidPRO200

Radionuclide Identifier Backpack

RanidPro200 backpack provides a high performance tools for radionuclide search and identification.

Every year a significant amount of radioactive sources disappear, are found or are stolen. Smuggling of radiological or nuclear material is becoming more and more frequent. Hospitals, medical science, lighthouses, power plants and industry all use different types of radiological sources. Every day the nuclear power plants create nuclear waste, which has to be handled and stored. Opportunities for the material to become misplaced, stolen or a container to leak because of and accident are numerous. Even a small amount of radioactive material can be used in a dirty bomb, which effects will be extremely harmful to the infrastructure or a misplaced source can cause serious danger as the symptoms appear few days after exposure.

KEY FEATURES

- Simple to operate, intuitive user interface
- High sensitivity
- Highly sophisticated detection algorithms
- Very low false alarm rate
- Automatic energy stabilization – valid data available all-time
- Remote control through a smartphone interface
- Full reach back capability
- Inconspicuous design
- Easy to use expert tool

APPLICATIONS

- Locating suspicious containers
- Locating orphan sources
- Portal applications (e.g. entry control)
- Radiological safety of industrial sites (e.g. steel mill industry)
- Radiological safety of harbors and railways
- Customs, border control and law enforcement
- Monitoring of mass events and high security meetings

Bringing Expertise to the Field

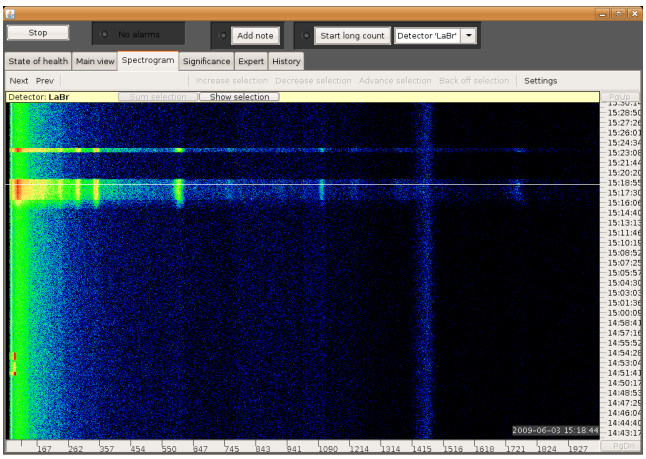
The performance of current radiation analyzers is varied at best and using them require thorough training, expertise and understanding on the matter. The Environics RanidPro200 has been designed to provide every user with this information. The device measures, detects and identifies the source of radiation and gives the user clear and simple information from the results.

Reliable Data – Extremely Low False Alarm Rate

The RanidPro200 implements unique automatic energy stabilization routines, meaning that the detector is able to conduct continuous spectroscopic measurements and analysis. The neutron detector has been designed to reject cross-sensitivity to gamma radiation meaning that it is not affected by high dose rates. This makes the RanidPro200 significantly more sensitive than similar R/N detectors and helps reduce the false alarms to absolute minimum.

Simple Operation

Using the RanidPro200 is simple. Just turn the device on and it checks itself. There is no need for any calibration or configuration as everything is automated. The device has an intuitive and self-explanatory user interface and the information is displayed to the user in a clear format containing dose rate, alarms and identification.



Comprehensive Full Spectrum Database

RanidPro200 has an integrated a GPS system, which enables logging the measurements in conjunction to the time and place. The device offers a comprehensive radionuclide database for reference. All measured data can be compared to the known spectrums for very specific analysis.

Full Reachback Capability

The RanidPro200 supports all commonly used wireless data transfer methods, and are able to be in constant contact with the control centers where the experts can process the measurements for more in-depth analysis. This helps verify the threat rapidly and provide immediate instructions for action.

Technical Data

Size (LxWxH)	Approx. 44 x 34 x 19
Weight	Approx. 4,7kg (with LaBr3 and Neutron detector)
Power	Uses FZ-M1 Toughpad internal battery 100-240V (50-60Hz)
Battery Life	>6 hours without External battery unit Approx. 8 hours with external battery
Communications	WLAN 3.5G Integrated GPS Optional with hot swappable battery: RJ-45 Ethernet LAN
Relative Humidity	95% at 35C, non-condensing
Temperature Operation Range	-20 °C - 50°C
Spectrum	Configurable as 2048 or 1024, Maximum Count Rate > 250 kcps
Library & Categorization	Designed to fulfill and exceed standard N42.34 ANSI Isotope list Medical and Industrial lists Special Nuclear Material lists Customizable user defined lists and ROIs

Performance

Gamma detector	LaBr3 scintillator 1.5"x1.5" or NaI (Tl) scintillator 2"x2" (Optionally other detector sizes)
Energy range	30Kev to 3MeV
Energy resolution	< 3% FWHM @ 662keV (LaBr3) < 7.5% FWHM @ 662keV (NaI)
Neutron detection	H^3 free ^{6}Li:ZnS (Ag) Detector
Dose rate range	0,01 to 100µSv/h
Dose rate Accuracy	±5%

Control units

Type	FZ-M1 Toughpad and Smartphone
Software	RanidPro200 control and monitoring software
Software features	Nuclide identification Spectrum analysis Dose rate calculation Comprehensive radionuclide database Audible search tool Spectrogram (Waterfall plot) Nuclide significance Alarms with sound Long spectral measurements Advanced reporting features

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