RADIATION SOLUTIONS INC

RS-220 Super-IDENT

Handheld Isotope Identifier

APPLICATIONS

FEATURES

- High sensitivity with large 2" x 2" NaI crystal, 6.3 in^3 (103 cm^3)
- Light weight & rugged 4.6 lb (2.2 kg) including batteries
- Easy to use, single button operation
- Optional GM tube for extended dose rate range (RS-220G), tolerance to high radiation levels
- Optional ^{3}He tube for Neutron detection performance (RS-220GN), man-made isotope identification and detection
- Search and nuclide ID modes with automatic data recording
- Auto-stabilizing on naturally occurring radioisotopes – no radioactive sources needed
- Fast audio output with adjustable audio threshold set point
  - BT earphone audio support for surveying in noisy environments
  - Unique audio feedback
- Special rugged design to withstand field usage, weatherproof, water and dust protection
- Typical 8-12 hour battery life at 20°C (4 x AA batteries)
- Supplied in hard case with molded insert for shipping & storage

Hi-Sensitivity Search and Nuclide ID Capability

The RS-220 handheld isotope identifier, with optional Neutron detector and optional GM Tube, is a robust portable radiation search and identification device. It offers an integrated design with a large NaI detector for search, direct nuclide identification, dose rate and data storage. The spectrometer is auto-stabilized on naturally occurring radioisotopes and does not require any test sources for proper operation. With full weather protection and a rugged design, the unit offers high sensitivity and good survivability in the challenging operations and locations often encountered. The simple one-button operation makes the unit easy to use and simplifies operator use. Bluetooth connectivity provides wireless data output and add-on accessories such as GPS and headphones.

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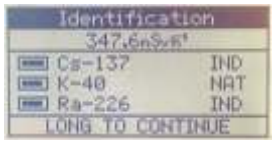
RS-220 Super-IDENT

Handheld Isotope Identifier

Search Mode

The large NaI detector provides the user with an extremely high level of system sensitivity. The large, easy-to-read 5 digit front panel display updates at a one time per second rate, providing a scrolling histogram chart with the last 100 readings simplifying the source localization. The integrated audio scans at a 20 times per second data rate for fast, easy, and eyes-free searching. In noisy areas or for covert operation, the instrument can be used with a Bluetooth linked audio headset.

Survey



Identication

Spectrum

Nuclide Identification Mode

The Nuclide Identification mode provides direct identification of radioactive material present in a relatively short period (typically 60 seconds). The large NaI detector gives higher levels of performance and faster ID.

Recording Data

The RS-220 has a large internal memory for recording data as well as location when an external GPS is connected via Bluetooth. This capability enables movement through a large area with the unit recording data at typically a one time per second rate. Compatible software can be used to create a map, providing the ability to access a facility on a regular basis to check for anomalies.

RS-Analyst Software

The RS-220 comes complete with RS-Analyst software to download data stored the instrument's memory. All data in memory is output via Bluetooth or USB to the RS-Analyst program on a PC. This may take the form of 1024 channel/ spectra, Nuclide ID data, GM data, and GPS data. The program also presents graphical and numeric views of the data. The data can also be re-exported as a text file for further processing.

Radiation Solutions Inc.

Radiation Solutions Inc. (RSI) is a Canadian company specializing in nuclear instrumentation for the detection, measurement, and analysis of low-level ionizing radiation from both naturally-occurring and man-made sources.

RSI's industry-leading radiation detection technology incorporates a fully digital system design, spectral analysis, and advanced data processing. RSI deploys this technology in stationary systems, airborne and mobile systems, portable and handheld spectrometers. This provides a level of quality previously only attainable in laboratory equipment.

RSI is committed to working closely with customers in all aspects of the product life cycle including product requirement, application, training, support, and product enhancement. Our comprehensive approach results in state-of-the-art hardware components, and software that produce outstanding results exceeding expectations.

SPECIFICATIONS

Large 2" x 2" NaI crystal, 6.3 in^3 (103 cm^3)

- 1024 channel spectrometer
- Energy Range 30 keV – 3000 keV
- Max dose rate 80 uGy/h (Energy compensated)

Energy compensated GM tube (Optional)

- 1.1" L x 0.31" D
- Max dose rate 10mGy/h

^{3}He Neutron Detector (Optional)

- 2.5" L x 0.45" D

Search and Nuclide ID modes with automatic data recording

Auto-stabilizing on naturally occurring radioisotopes

Nuclide ID Library

- SNM
- Med
- NORM
- Ind

Alarms Neutron, Dose Rate and Count Rate

- Audio via miniature speaker
- Variable audio threshold set point
- Audio proportional to count rate, internal sampling 20/second

Single button control

Graphic LED display 1.125" x 2.66" with white back light and automatic dimming

Memory

- 4MB, can be partitioned for desired storage
- Recording Total Count only 94,000 readings
- Nuclide Identification only 1000 spectra

Data Input / Output

- Using supplied RS-Analyst software via USB, Bluetooth (BT), or USB mass storage

Temperature Range -20°C to +50°C

RS-220 Size and Weight:

- 10.2" x 3.2" x 3.8" (259 mm x 81 mm x 96mm)
- 4.6 lb (2.2 kg) including batteries

Internal detachable battery pack

- Typical Life 8+ hours at 20°C
- 4 x AA Rechargeable or alkaline

Ordering Models

- RS-220 standard gamma-ray detector
- RS-220G standard model, including GM-tube
- RS-220GN includes GM and Neutron detector

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