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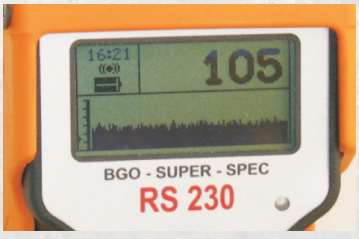
RS-230 BGO Super-SPEC

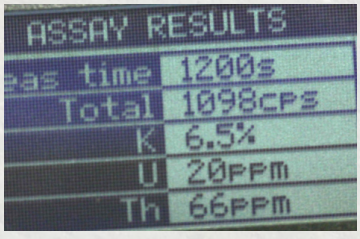
Handheld Gamma-Ray Spectrometer

Providing Survey, Scan & Assay Modes of Operation

RS-230 BGO Ideal For Field Exploration

The RS-230 BGO Spectrometer is the industry standard in portable handheld gamma ray survey devices for geophysical applications. It offers an integrated design with a large detector, direct Assay data, data storage, full weather protection, ease of use and the highest sensitivity in the market. Additionally, Bluetooth (BT) Connectivity provides wireless connection to a Bluetooth enabled external GPS receiver, earphone or computer.





APPLICATIONS

FEATURES

- High sensitivity with large 2" x 2" BGO (Bismuth Germanate Oxide) crystal, 6.3 in^3(103 cm^3)
- Extreme sensitivity (3 x greater than NaI crystal of the same volume)
- Light weight & rugged 5.6lb (2.55kg) including batteries
- Easy-to-use, single button operation
- Survey, Scan, and Assay modes of operation
- Assay mode readout in %K, ppm of U & Th
- Auto-stabilizing on naturally occurring radioelements
- 5-digit LCD display with scrolling histogram graph display of last 100 readings
- Fast audio output with adjustable audio threshold set point
  - BT earphone audio support for surveying in noisy environments
  - Unique audio feedback
- Bluetooth and USB equipped with external GPS integrated into data stream via BT
- Special rugged design to withstand typical field usage, weatherproof, water and dust protection
- Typical 8-12 hour battery life at 20°C (4 x AA batteries)
- No radioactive sources required for proper operation
- Supplied in hard case with moulded insert for shipping and storage

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Bismuth Germanate Oxide (BGO)

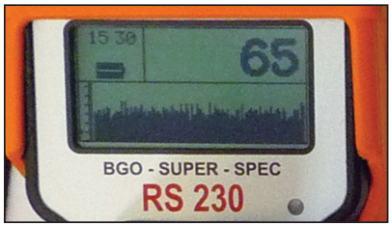
The performance of the higher density 6.3 in^3 (103 cm^3) Bismuth Germanate Oxide crystal (BGO) is approximately 80% of a 21 in^3(345 cm^3) Sodium Iodide (NaI) crystal, commonly used with larger portable instruments. The BGO crystal (2" x 2") is approximately three times more sensitive than an NaI crystal of the same size.

Survey Mode

The total count readout is typically set at once per second while the range is variable from 1-20 sec. integration. When used with a GPS receiver, data can be stored and profiles produced. It is ideal for both area and drill core scanning.

Assay Mode

The assay mode provides the concentrations of K, U and Th. The user can select the desired sample time from 30 to 1800 seconds. On-the-fly assay is a feature available when automatically recording the data and is at a minimum of 30 second intervals.



RS-Analyst Software

The RS-230 comes complete with RS-Analyst utility software to download data stored in 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, data or scan data & GPS. The program also gives graphical and numeric views of the data. The data can also be re-exported as a text file for further processing.

Specifications subject to change without notice 02/20

SPECIFICATIONS

Large 2" x 2" BGO crystal, 6.3 in^3 (103 cm^3)
- 1024 channel spectrometer
- Energy Range 30keV–3000keV

Assay and survey modes with automatic recording of data

On-the-fly Assay

Auto-stabilizing on naturally occurring radio elements

Readout
- Survey mode: counts in CPS from 0 to 65,535 and histogram chart
- Assay mode: display in %K, ppm of U & Th (ROIs per IAEA)

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

Single button control

Graphic LCD display 11/8" x 2 2/3" with white backlight and automatic dimming

Memory:
- 4MB, memory can be partitioned for desired storage.
- More than 250,000 readings or 70 hours of readings.

Data Input / Output
- Via USB or Bluetooth (BT) (using supplied RS-Analyst software)

Temperature Range -20°C to +50°C

RS-230 Size and Weight
- 10.2" x 3.2" x 3.8" (259mm x 81mm x 96mm)
- 5.6lb (2.55kg) including batteries

Internal detachable battery pack
- Typical Life 8+ hours at 20°C
- 4 x AA type rechargeable or alkaline

Standard RS-230 BGO Package
- RS-230 BGO Spectrometer with carrying handle
- Removable protective boot with shoulder strap
- Battery cartridge with 4 x AA rechargeable batteries & charger
- Spare battery holder cartridge
- RS-Analyst utility software
- USB cable
- User guide
- Delivered in hard case with foam insert

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