

Geophysical gamma spectrometer

GEORADIS

GT-30, GT-32

Series of hand-held instruments for the detection and measurement of ionizing radiation is mainly intended for geology, but they can be used in many other fields. Basic operation modes are searching for or determining of the content of K, U, Th in the field. The devices are identical to the hardware, differing only in the used detector. According to him, the individual instruments are called:

GT-30 (also known as RS-125) is a spectrometer equipped with a NaI(Tl) detector 2x2".

GT-32 (RS-230) is a spectrometer equipped with a BGO detector 2x2" to increase the sensitivity of the instrument, which is so similar to devices equipped with NaI(Tl) detector 3x3". The devices are equipped with graphic LCD display with backlight controlled automatically according to the intensity of external illumination. The measured count rate is displayed each second by large, easy-to-read numbers. Beneath them is the graphic record of the last 100 readings. Display of clock and battery status is already standard on handheld devices. The acoustic signal is updated 20 times per second for quick response to strong emitter.

TYPICAL USE

Search for contaminated materials

Search for radiation anomalies in the field

Determination of the K, U, Th content in the field

Measurements of drill cores

When you search for anomalies in the field is possible to use the total number of registered pulses or continuous approximate evaluation of K, U, Th concentrations.

The device can be connected via bluetooth to GPS antenna interface and recorded data can be stored in the internal memory, including geographic coordinates.

A more accurate determination is performed by measuring the spectra for 5-20 minutes according to the needs on accuracy and reliability of results.

The spectrometer automatically adjusts amplification using radionuclides of natural background. It needs no radioactive source.



Devices communicate with the computer via USB or Bluetooth.

The devices are powered by four AA-size NiMH rechargeable batteries with possibility to recharge them via AC adapter.

Supplied with 2 battery modules to be quickly replaced without recharging.

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TECHNICAL PARAMETERS

Detector: NaI(Tl) 2x2" or BGO 2x2", 103 ccm
 FWHM max. 7 % (BGO max. 11 %)
 Sensitivity: 160 cps (BGO 210) / MBq Cs-137 / m
 75 cps (BGO 75) / MBq Am-241 / m
 270 cps (BGO 400) / MBq Co-60 / m
 Gamma energy range: 30 - 3 000 keV
 Number of analyzer channels: 1024
 Display: graphic 128 x 64 dots, 28 x 60 mm
 automatic backlight
 Acoustic indication: 20 x per second,
 automatically set background level,
 frequency variation according to the
 radiation intensity
 PC connection: USB, Bluetooth



COMMON FEATURES

Easy to use
Single-button control
Digital LCD display
Robust design (IP65)
Light weight (2.0 to 2.4 kg)
Low power consumption
Powered by 4 x AA batteries
Fast response, high sensitivity
Acoustic signalization of the measured frequency
Adjustable threshold acoustic signal
Internal memory for data storage
Automatic gain setup

Data evaluation: pulses per second (cps);
 % K, ppm U and Th,
 Gy/h of natural radionuclides
 Data recording: internal memory or PC
 Data memory: up to 288 hours of samples or
 14,000 analyzes of K, U, Th or
 1768 spectra, respectively
 their combination according to
 the memory allocation
 Power supply: 4 x AA, typically 8 hours of operation
 Dimensions: 260 x 81 x 96 mm
 Weight: 2.0 kg including batteries (GT-32: 2.4 kg)
 Operating Temperature Range: - 10 to 50 ° C
 Protection class: IP65, resistant to water jets in any
 direction and fully dustproof
 Included: 4 NiMH 2000 mAh battery
 MiniUSB cable
 Mains - battery charger
 PU protective case with shoulder strap
 Carrying case STORM CASE
 PC software program "GeoView"