

Geophysical / Environmental Gamma- Ray Analyzer

GEORADIS

GT-40, GT-40-S

The RT-40 represents a major advance in portable gamma-ray spectrometers, offering many new features for geophysical and environmental applications. The compact, one hand unit with integrated GPS gives user very pleasant field operation. The high sensitivity detectors combined with sophisticated mathematical method provides accurate and reliable results at real time.

The GT-40 and GT-40-S are identical except type of detector. The GT-40 has 3x3" NaI(Tl) detector and with high sensitivity and good resolution can be used at most field application. The GT-40-S has 2x2" BGO detector with lead shielding and should be used for focused measurement of cores or at stratigraphy measurements.

Application

- **Mineral Exploration**
- **Oil and Gas Exploration**
- **Geological Survey**
- **Geophysical Mapping**
- **K , U, Th and Cs-137 Assay**
- **Uranium Prospecting**
- **Core Logging**
- **Environmental Monitoring**

Using internal calibration constants, the GT-40 can compute concentration in %K, ppm of U and Th. Results are displayed immediately after end of measurements. They can be stored in the instrument and/or sent to appropriate external device via Bluetooth or Wi-Fi. High sensitive integrating GPS receiver can automatically record the position and store it with each measurement. Measurements can be stamped also by voice notes. Stored voice messages can be replicated by built in speaker.

The GT-40 is powered by a high energy rechargeable lithium pack with built-in charger. This permits operation with the true time measurement up to 15 hours.

The versatile GeoView software package provides all necessary data download to PC, calendar based survey result, spectrum view, data presentation and export survey to e.g. Google Earth.

Features

- **High Sensitivity using 3"x 3" NaI(Tl) or 2"x 2" Shielded BGO Detector**
- **Advanced DSP Spectrometer**
- **Automatic Stabilization on Natural Background**
- **Large Sun Readable Colour Display**
- **User Intuitive Navigation Joystick**
- **Wireless communication via Wi-Fi or Bluetooth**
- **Real Time Result stamped by Integrated GPS and Voice Recorder**
- **All in rugged One Hand Unit**

The GT-40 utilise advanced DSP, 1024 channel linear energy spectrometer and pile-up rejector with build in continuous analysis. It also uses an advanced method of automatic stabilization on natural background radiation throughout its operation. This unique stabilization method eliminates the need for an additional radioactive check source.

The GT-40 has user friendly navigation joystick and sun readable colour display. Brightness is automatically controlled according external lightning.



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Technical data

Detector

GT-40: NaI(Tl), volume 345 cm³, dia.76 x 76 mm (3" x 3"), with bi-alkali PMT
GT-40-S: BGO, volume 104 cm³, dia.51 x 51 mm (2" x 2"), with bi-alkal PMT, shielded with 25 mm (1") of lead

Spectrometer 1024 channel, 40 MHz DSP, Linear Energy corrected Pile-up Rejector, 200 ns Resolution

Display Colour, Transreflective, 360 x 240 dots, 72 x 54 mm (3.5"), Sun readable

Control Illuminated Navigation Joystick, 5 positions

Acoustic Built-in microphone
Speaker, dia. 36 mm

Data Storage min. 2000 Samples with full Spectra, Data Position and Voice Message

GPS navigate down to -162 dBm and -148 dBm coldstart

Communication Data Transfer, Remote Control and Diagnostic by:
USB 2.0
Bluetooth1.2 Class 2
Wi-Fi 802.11n

Power Rechargeable Li-ion 7.2V/6600 mAh (Panasonic CGR18650CG/2S3P) – min. 20 hours of operation
External AC adapter (12V/1A) for charging or measurement

Size dia. 120 mm x 420 mm

Weight

GT-40: 4 kg (8.8 lb)
GT-40-S: 9 kg (19.8 lb)

Environmental Operation Temperature Range -10°C to +50°C
Protection IP-65, Dust and Water resistant
RFI/EMF Shielding complies with FCC(47 CFR part 15) for Class A CE Certification

Standard Package:

GT-40 (GT-40-S) Spectrometer
User Guide
AC Net Power adapter
1.5 m USB Cable
Geoview Software Package (CD)
Rugged Pelican Storage and Transportation Case

