GEORADIS S.R.O.

peo DETECTION

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GEORADIS s.r.o.

Georadis s.r.o. is a specialized manufacturer of advanced radiation detection and monitoring instruments, offering a comprehensive suite of solutions for field and laboratory applications. Their product portfolio includes handheld monitors, portable isotope identifiers, environmental monitoring devices, and laboratory equipment, all designed to meet the rigorous demands of professionals in sectors such as environmental monitoring, industrial safety, and public security.

Georadis provides tools that combine high sensitivity, durability, and user-friendly operation. Their handheld monitors offer rapid detection capabilities in compact designs, suitable for quick assessments in various environments.

With a commitment to innovation and quality, Georadis ensures that organizations have access to state-of-the-art radiation detection solutions, enhancing safety protocols and operational efficiency across diverse applications.

HANDHELD MONITORS

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RT-20 Compact handheld Radiation Detector – Georadis

The RT-20 Compact handheld Radiation Detector is a robust and compact hand held radiation detector specifically designed to quickly scan for radioactive materials. The ruggedness, small size and light weight of the RT-20, combined with its sensitive Gamma Ray scintillation detector makes it a versatile instrument for quick measurements in a large variety of applications.

RT-20 Compact handheld Radiation Detector features:

- 1,3 kg; balanced and lightweight
- reads in counts per second, sampling rate 4 per second
- high sensitivity, NaI/Tl crysta
- adjustable audio threshold
- audio output and numeric LCD display maximum 19999 cps
- automated warning of high dose rate
- protection boot with carrying straps
- supplied in aluminium suitcase with moulded insert
- automatic charger integrated in unit
- dust and sprinkling water resistant (IP66)
- available with telescope (RS-111T)

Read more about the RT-20 Compact handheld Radiation Detector on the Georadis website

RT-21 Handheld Radiation Detector – Georadis

The RT-21 (Georadis) is the most sensitive of numerous manufactured handheld radiation detectors. Its robust design allows it to operate even in the most demanding climatic conditions. Our bestseller at the time of the uranium panic. Popular with scrap yard owners.

RT-21 Handheld Radiation Detector features:

- one button operation
- highest sensitivity
- weather protected
- lightweight, rugged and compact design
- graphical display
- with telescope available (RS-21T)
- sampling period: 20/sec
- detector: NaI(Tl) 2×2“ or BGO 2×2“, 103 ccm
- gamma ray energy range: 30 – 3000 keV

Read more about the RT-21 Handheld Radiation Detector on the Georadis website

Radiation Detection › Handheld Monitors

RT-22 Handheld Radiation Detector with GeoView Software – Georadis

The RT-22 model is based on the RT-21 series, the most sensitive from the range of manufactured hand-held radiation detectors. Compared to its predecessor, it comes with an internal memory for storing measurement data, and Bluetooth connectivity allowing the use of an external GPS module. Its robust design makes it suitable for hostile climatic conditions. Our bestseller at the time of the uranium panic. Popular with scrap yard owners.

GeoView provides specificated views on accumulated data such as survey in both doserate or cps. The RT-22 Handheld Radiation Detector can be connected with the software through USB or Bluetooth.

RT-22 Handheld Radiation Detector with GeoView Software features:

- graphical display
- with telescope available (RT-22T)
- sampling period: 20/sec
- detector: NaI(Tl) 2×2“ or BGO 2×2“, 103 ccm
- gamma ray energy range: 30 – 3000 keV
- highest sensitivity
- weather protected
- lightweight, rugged and compact design

Read more about the RT-22 Handheld Radiaotion Detector with GeoView Software on the Georadis website

Radiation Detection › Handheld Monitors

RT-30 Mk II – Georadis

Handheld Isotope Identification Instrument RIID

The RT-30 Mk II is the second generation of popular handheld gamma ray spectrometer RT-30. Strengths of the first generation were copied in the new model. There has to be highlighted a strong alloy body sealed against dust and water, protective removable rubber boot, comfortable grip and low weight.

The Mk II learned of the limitations of the first generation and features a large colored transreflectible sun readable display, improved user's interface with five operation buttons, removable but well-sealed battery pack and clear and loud audio.

The instrument is built as an open platform with potential of fast and simple implementation of special features required by customers. Wide fleet of detectors is supported. The Mk II bridges traditional scintillation detection probes using common vacuum photomultiplier tube with up-to-date silicon photomultipliers technology. Saved significant volume of vacuum tubes is next occupied by larger size of detector.

A heart of gamma ray spectrometer is FPGA (programmable array) plus fast speed and low consumption ARM type processor. The combination of FPGA with ARM is taken of preceding larger instrument and has been tested for years. Beside gamma ray section the FPGA is capable to handle other sensors at the same time. A Geiger-Mueller counter and a Neutron detector make a standard offer.

Thanks to latest electronic the Mk II opens a platform for supporting most modern existing communication standards. Sharing new and traditional communication standards is guaranteed wide compatibility with older as well as new communication devices. The existing USB was upgraded to level C and beside communication it is used also for unit's battery charging. GPS system is built in the front part of the instrument and is used for localization of the unit and also for time synchronization.

Quickly determining the location of lost radioactive sources in the environment or scrap, monitoring of waste in hospitals or waste incinerators, scanning people or baggage to disclose illicit trafficking of nuclear materials; all are typical applications for the RT-30 Mk II series.

Features:

- Ergonomic, lightweight handheld well balanced, compact;
- Comfortable grip with five buttons operable in glows;
- Removable protective rubber boot;
- Detectors fully build in the housing, protected by rubber foam;
- Large, transreflectible colored display – sharp and high contrast in sunlight, backlighted in dark;
- Loudspeaker with plastic membrane watertight;
- Four status indication LEDs – indication of alarms and health status;
- USB standard C for data transfer and charging;

- Wide fleet of scintillation detectors NaI/Tl, CsI/Tl, CsI/Eu, LaHalide, BGO, GAGG, SrI, Plastic scintillation detectors PVT;
- Maximum detector size: Diameter 2” and height 2” with standard vacuum PMT or max 5” with Silicon PMT (SiPM or MPPC).

See the full details in the RT-30 Mk II datasheet.

PORTABLE ISOTOPE IDENTIFIERS

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RT-30 Gamma-Ray Spectrometer with Nuclide ID Capability – Georadis

The RT-30 Gamma-Ray Spectrometer with Nuclide ID Capability (Georadis) integrates a radiation survey meter, dose meter and radionuclide identification device in a weather protected, lightweight and easy to use instrument.

RT-30 Gamma-Ray Spectrometer with Nuclide ID Capability features:

- multiple functions; nuclide ID (isotope name), scan and search
- auto-stabilization
- protection: IP66
- single button operation
- sensitivity: Co-60: 270 cps/MBq, Cs-137: 160 cps/MBq, Am-241: 75 cps/MBq
- data interchange; Bluetooth or USB
- readout search mode; 0 – 65535 cps
- energy response: 20 keV to 3000 keV
- energy compensated doserate: 0 – 10 mSv/h (with G/M detector)
- graphic LCD display; 128 x 64 pixels
- 2GB memory

Read more about the RT-30 Gamma-Ray Spectrometer with Nuclide ID Capability on the Georadis website

ENVIRONMENTAL MONITORING

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Radiation Detection › Environmental Monitoring

GT-40 Gamma Ray Spectrometer

A multifunctional gamma ray spectrometer for rapid determination of activities of gamma emitters in field surveys or samplings. A wide range of applications in the field of monitoring heterogeneous substances, contamination of sites, buildings, objects, water and food. Application in geology in field surveys for raw material sources. Proven performance in harsh environment applications. Survey data is stored in the memory, including the GPS coordinates. Up to 6 different calibrations.

Properties

Portable digital gamma ray spectrometer with a built-in computer for complex analysis of the measured data. Bluetooth, Wi-Fi and GPS are an added advantage. Transreflective colour display.

Use

Applicable wherever it is necessary to quickly and accurately determine the activities/content of gamma emitters. Suitable for field survey measurements, but also to be incorporated into shielding.

Modification

The GT-40 series is provided with a NaI/Tl scintillator with a 3″ base diameter and 3″ height. A GT-40S model is also manufactured, which is fitted with either a NaI/Tl or BGO detector with a 2″ base diameter and 2″ height at the customer’s request. The GT-40S model has a built-in 1 cm thick Pb collimator. The collimator is easily removable.

Specification

Two basic working modes: Survey, for terrain scanning, and Assay, for determining concentrations of precalibrated radionuclides, i.e. components. Energy calibration of the analyzer is carried out continuously throughout the operating time, and only natural background sources are used for the set-up. Monitoring and analysis results are displayed on a color graphic display in a well-arranged manner. All acquired data is stored in the unit’s memory and can be exported to other devices via USB, Wi-Fi or Bluetooth. Field observations can be recorded and stored along with each measurement using a built-in voice recorder.

Alternatives – Options – Special applications

Alternative models for special applications have been designed. GT-40-B profits of BGO detector 3″ base diameter and 3″ height. GT-40 – L is a model with extended length of body for scanning of small spots on earth surface. Support for high precision external GPS, build in calibration and protocol for fast core logging.

LABORATORY EQUIPMENT

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Radiation Detection › Laboratory Equipment

RT-50 Laboratory Gamma-Ray Spectrometer – Georadis

The RT-50 (Georadis) is a state of the art gamma spectrum analyzer to monitor and detect the presence of radiation in metals, metals by-products, geological samples, construction materials, environmental commodities, food and many other materials. Floor standing and easy to operate, the RT-50 spectrum analyzer is an indispensable part of any analytical laboratory, it rapidly detects and accurately measures extremely low levels of radioactive contamination.

RT-50 Laboratory Gamma-Ray Spectrometer features:

- full sample analysis in less than 5 min
- sensitivity; 0.02 Bq/g
- energy range: 20 keV – 3,0 MeV
- 1024 channel pulse amplitude analyzer
- short calibration times
- NaI(Tl) volume 0.35 l, 76 x 76 mm (3”x3”) detector

Read more about the RT-50 Laboratory Gamma-Ray Spectrometer on the Georadis website