Gamma-Ray spectrometer with Nuclide ID capability

A highly sensitive instrument providing search, scan and nuclide identification in one compact unit.

The RT-30 Spectrometer is the state-of-the-art in portable nuclide ID instrumentation. It offers an integrated design with a large detector and built-in large data memory. It offers weather protection with ease of use. In addition it has Bluetooth connectivity providing for wireless connection to external GPS receiver, earphone or computer.

Applications

Metal and recycling industries
Customs and border control
Hospitals and laboratories
Nuclear facilities
Mines, geology
Waste disposal sites

The compact RT-30 unit includes a large (103 cm³) NaI detector, a 1024 channel spectrometer and a powerful processor. The mechanical design provides ease of use, weather protection as well as shock protection. It is particularly suitable for demanding environments such as steel mills, scrap recycling yards or border crossings.

All functions are handled with one button on the handle. Bluetooth (BT) simplifies data transfer, reporting and – if required – storage of GPS coordinates with the survey data. The scan function allows for surface mapping.

The RT-30 spectrometer is auto-stabilizing on the naturally occurring (K, Th and U) radioactivity and does not require any test sources.

Features

• High sensitivity with large NaI detector 2 x 2” (103 cm³)
• Lightweight and rugged, 2 kg, including batteries
• Easy to learn and use, single button operation.
• Three functions: Search, Scan and Nuclide ID
• Auto-stabilization, no radioactive sources required for proper operation
• 5-digit LCD display with high count rate – 65,535 cps. Scrolling histogram graph display of last 100 readings
• Fast audio output with adjustable audio threshold set point – BT Earphone audio support for noisy area surveying
• Full IP& weather proofing with protection against streaming water and fully dust protected
• Bluetooth and USB equipped with external GPS integrated into data stream via BT
• Low power, 4 x AA batteries, typical 8-12 hours battery life at 20 °C

Standard accessories

RT-30 Spectrometer with carrying handle
Removable protective boot with shoulder strap
Battery cartridge with 4 x AA rechargeable batteries & charger
Spare battery holder cartridge
Geo-view utility software
USB cable and User guide

Isotope library

**System specifications**

- **Temperature Range:** -20°C to +50°C
- **Control:** Single one button, thumb activated
- **Alarms:**
  - Audio via miniature speaker
  - Variable audio threshold set point
  - Audio proportional to count rate
- **Weight:** 2 kg including batteries
- **Size & Package Style:**
  - 259 mm x 81 mm x 96 mm
  - 1 mm rugged aluminium outer case
  - Supplied with an integrated handle for easy carry
- **Memory:** 2MB, memory can be partitioned for desired storage. Typically set for:
  - Scan Total Count only: 94,000 readings
  - Scan + Nuclide Identification: 1000+ readings
  - Nuclide Identification only: 400+ readings
- **Data Input / Output:**
  - USB or Bluetooth (BT)
- **Display:**
  - 128 x 64 pixels, 29 x 60 mm Graphic LCD display with white backlight and automatic dimming
- **Readout:**
  - Search mode: 0 – 65535 cps
  - Nuclide identification mode: Isotope name
- **Energy Response:** 20 keV to 3072 keV
- **Internal Sampling for Audio Analysis:** 20 / second
- **Batteries:**
  - Internal battery pack module (4xAA) easily replaceable
  - Rechargeable or alkaline. Battery life — 8 + hours at 20°C
  - Energy compensated doserate: 0 – 10 mSv/h (with G/M detector)
  - Sensitivity
    - For Co-60: 270 cps/MBq
    - For Cs-137: 160 cps/MBq
    - For Am-241: 75 cps/MBq
  - Optional Neutron detector: He-3 0.45” x 2.5”

---

The RT-30 is made in the European Union
Specifications are subject to change