



## Portable HPGe Gamma-ray Detectors

(Liquid Nitrogen cooled)

### Application

Detection, accumulation and processing of gamma spectra in field and industry conditions were small dimensions and weight of spectrometer are important.

### Complete set (standard)

- HPGe coaxial detector
- Pre-amplifier with cooled input stage
- Dewar vessel
- Cable set

### Features

- Light weight aluminum construction
- Detection of radiation in any spatial orientation
- Compact low-consuming electronics
- Available with HPGe Coaxial or Planar detector
- Transportation and storage without cooling
- Input window materials: Aluminum, Beryllium or Carbon-fiber
- Dewar vessels available with different volumes from 1l to 7l

### Accessories (optional)

- Multichannel Analyzer (Digital or Analog-Digital)
- Analytical Software packages:
  - quantitative and qualitative analysis
  - $\gamma$ -spectra modeling & efficiency registration calculation for complex geometry objects
  - extended radionuclide library
- Hand-cart for Multichannel Analyzer, battery, transformer, etc.
- Additional batteries
- Recharger
- Collimators
- Transport case
- Tripod
- Liquid nitrogen storage and filling system
- Liquid nitrogen sensor and monitor
- Cable set extension

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## Specification

Parameter	Value
Energy range, keV	
Standard	40 - 10000
Extended	3 - 10000
HPGe detector efficiency, %	30*
Energy resolution for 30% efficiency detector, keV at energy	
122 keV	0.875
1.33 MeV	1.85
Peak to Compton ration	58:1
Time of cooling after filling with liquid nitrogen, h	4 - 8**
Time of continuous operation, days	1 - 5**
Al end cup thickness, mm	0.7
Weight of detector with empty Dewar vessel, kg	5 - 12**
Pre-amplifier cables have standard NIM connectors: POWER DC $\pm 12V$ - D-Sub-9pin, HV - SHV, OUT - BNC, TEST - BNC	

\* HPGe Detectors are available with efficiency from 10% to 100%

\*\* Depending on Dewar vessel volume and/or detector efficiency



### Accessories

