



HPGe Spectrometer with Lead Shield

for Liquids and Gaseous Flows Radionuclide Analysis

Application

HPGe Spectrometer with shield is designed for defining the composition and activity of radionuclides in the flow of liquids and gases in automated technological processes such as those in nuclear energetics, environmental monitoring and industrial applications.

Complete set

- •HPGe coaxial detector
- Multichannel Analyzer
- Lead Shield with a supporting table
- Control unit with valves
- Sensors for liquid and gas flow
- Emulation and analysis software
- Cable set

Features

- Definition of composition and activity of radionuclides in real time mode
- Display of current values for specific activity of controlled radionuclides
- Indication of activity level increase of any chosen radionuclide
- High registration efficiency
- Wide range of measured activities
- Operation rates in fully-automatic mode: measurement, washing, purging, pre-starting
- Liquid nitrogen level indicator with alarm system

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Specification

Parameter	Value
Energy resolution, MeV	0.05 - 2.8
HPGe detector efficiency, %	10*
Detection limit for 131 radionuclide specific activity,	
measurement time 600 s, Bq/l	0.8×10^{3}
Absolute sensitivity to gamma flux for 30% efficiency	
detector, pulse/quantum	7.3 x 10 ⁵
Continuous autonomous operating time after filling	
with liquid nitrogen, days	18
Ambient temperature, °C	+5 to +40
Supply voltage, V/Frequency, Hz	220+10 / 50+60
Overall dimensions	
Lead shield, support and detector, mm	1300 x 580 x 480
Spectrometric device Multispectrum, mm	490 x 230 x 490
Lead shield, support and detector weight, kg	170

^{*} Detectors with higher efficiency are available

Installations



