

AT6102

SPECTROMETER

Small-size multifunctional scintillation gamma radiation spectrometer to identify gamma radiation radionuclides and measure ambient equivalent gamma and neutron radiation dose rate

Natural, industrial, medical radionuclide and nuclear material identification

Features

- Multifunctionality
- Single-unit instrument
- Gamma and neutron radiation source searching and detection and dose rate measuring
- Operating and expert operation modes
- Automatic continuous built-in LED stabilization of spectrometer energy scale
- Digital temperature compensation of measuring path
- Audible and visual alarm at gamma radiation radionuclide identification and dose rate threshold exceeding
- Saving and keeping up to 500 spectra in the spectrometer non-volatile memory
- Operation within wide temperature range under field conditions (IP65)
- Data transfer to PC
- Three power types



Application

- Environmental monitoring
- Nuclear industry
- Radioactive waste monitoring
- Radioactive and fission material trafficking control
- Emergency
- Nuclear medicine
- Scientific research



ATOMTEX

INSTRUMENTS AND TECHNOLOGIES FOR
NUCLEAR MEASUREMENTS AND RADIATION MONITORING

Specification

Detectors	scintillation NaI(Tl) gas-discharge counter helium proportional counter in moderator	Temporal instability for 24h operation	not more than 1 %
Gamma radiation energy range	30 keV - 3 MeV	Intrinsic dose rate measurement error	not more than $\pm 15\%$
Relative energy resolution on gamma line of 662 keV	7.0 - 7.5%	Operating temperature range	-20 +50 °C
Maximum input statistical load	$5 \cdot 10^4 \text{ s}^{-1}$	Operation mode setup time	not more than 10 min
Channel number	512	Protection class	IP65
Ambient equivalent gamma radiation dose rate measuring range	0.03 Sv/h - 100 mSv/h	Radio disturbance characteristics CEI/IEC CISPR 22:1997	
Detected neutron radiation energy range	$2.5 \cdot 10^5 \text{ keV} - 10 \text{ MeV}$	Electromagnetic compatibility CEI/IEC 61000-4-2:1995 IEC 61000-4-3:1995	
Ambient equivalent neutron radiation dose rate (from Pu-Be sources) measuring range	0.1 - 10^4 Sv/h	Weight	not more than 1.6 kg
Continuous operation time AC mains, 220 V	not less than 24 h	Dimensions	150x220x80 mm
built-in accumulator unit	not less than 14 h		

Complete set: the spectrometer, AC adapter A51211DG, packing case, Manual.

By additional order it is possible to include into the spectrometer complete set alpha, beta and gamma radiation dosimetry and radiometry intelligent detection units (BDKG-01, BDPA-01, BDPB-01), head-phones, charger for accumulators, cable to connect "+12V", cable to connect PC, applied software and other accessories.



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