

Nuc Scout

Portable Gamma Identifier – Quantifier – Dose Rate Meter



Applications:

- the detection of radioactive sources by disposal companies or security forces
- the assessment of large-scale contamination based on geographic information systems (GIS)
- monitoring measurements of food and building materials
- in nuclear medicine

Features:

- the local dose rate and the activities of 28 user-definable individual nuclides can be measured over long periods of time
- large, bright touchscreen
- adjustable time interval with spectrum
- integrated GPS receiver for local assignment of the measurement data
- internal wireless network interface for sending measurement data to a base station up to several hundred meters away (optional)
- detachable 2 x 2" NaI(Tl) detector for flexible positioning
- optional measuring table for Marinelli cups
- activity calculation of the individual nuclides with PSV algorithm and trapezoidal method
- the scope of delivery includes an extensive software package for the transfer, display and export of the measurement data. The software allows full remote operation of the device via USB or a wireless network

Gamma probe

Detector	Nal(Tl) with integrated photo multiplier and HV supply
Detector size	2" x 2"
Energy range	25 keV – 3 MeV
Resolution	< 7,5 % (7 % typ.) @ 662 keV
Efficiency	net count rate > 1100 cps / (μSv/h) for Cs-137
Max. count rate	100.000 cps
Dose rate range	0 ... 15 μSv/h for Cs-137
Spectrum	512 channels
Results	single shot or over time identification of up to 28 emission lines in four nuclide lists; nuclide-lists can be either created by user (based on a library) or loaded as pre-defined list calculation of net activity based on pre-defined or user created efficiency calibrations energy compensated local dose rate measurement
Stabilization	electronic temperature stabilization, peak-pickup by PSV analysis algorithm

General

Sampling cycles	storage of up to 16 different measurement programs (defined or infinite repetition) with intervals from 1s to weeks predefined cycles: 10s, 30s, 60s continuous and 5min, 15min, single shot
Data storage	SD-Card to store more than 780.000 data records
Display	touch screen 6cm x 9cm with back light, good readable even in direct sun light shows: status/ results / spectra
Interfaces	USB and optional NetMonitors (ZigBee)
Power supply	18V mains adapter / NiMH battery with int. charger operation: min. 8 h (typ. 14 h)
Dimensions	265 mm x 195 mm x 210 mm
Weight	2,5 kg

Software (included in delivery)	dVISION: device control and data transfer, visualization, data management, calibration, library management, export of KLM files for direct opening by Google Earth™ dCONFIG: system configuration, creation of sample cycles
NetMonitors wireless network interface (ZigBee Standard)	frequency 2,4 GHz, power rate 100 mW protocol IEEE 802.15.4 (range >300m in case of intervisibility)
GPS	SIRF 3 (12 channels), GPS coordinates are recorded and stored together with measurement results GIS compatible KML files can be exported and opened with Google Earth™
Alert	buzzer 85dB, red LED, display turns on automatically showing the reason of alert
Scope of delivery	USB cable, charger, transport case, SW and manual (electronic version), calibration certificate
Optional accessories	Sampling table for usage with Marinelli beaker (standard or version with lead shield and scale), charger, USB cable, transportation case, NetMonitors network coordinator (connected via USB to PC) & instrument's adapter (must to be built-in)