NUVIATECH INSTRUMENTS

SPECIFICATION SHEET

PORTAL P

Deployable Modular Radiation Screening System for Pedestrians

PORTAL P is a compact modular emergency radiation screening system (designed according to the FEMA-REP-21 standard) suitable for inspecting pedestrians. The big advantage is its portability and operative assembly which enables rapid deployment at temporary events with larger concentration of population, at borders, in nuclear facilities and for other homeland security tasks. The system is operated via a control panel equipped with a userfriendly operating software. PORTAL P assembly can be customized to meet specific customer requirements.

Benefits

- Turnkey solution for various emergency tasks
- Lightweight construction
- Operative fast deployment
- Modular system enabling multiple uses, adaptable to pedestrian screening
- Easy to fully decontaminate
- Power supply from various independent sources (car battery/battery/mains/diesel generator)

Key Figures

50 keV – 3 MeV
➥ *Gamma energy range*

37 kBq
➥ *Detection threshold for ^{137}Cs at 662 keV*

8 h
➥ *Independent battery operation*

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Product Description

The main supporting durable frame of PORTAL P is composed of precisely shaped lightweight aluminum girders facilitating fast assembly of the system. Depending on the given task, a portal monitor for pedestrians can be constructed. By default, the system is equipped with two 5-litre high-sensitivity plastic scintillation detectors housed in water and dust-resistant boxes that can be easily decontaminated due to their special surface treatment. Their size can be customized as well as the number or types of detectors. Detection units mounted on the aluminum frame are connected with cables to a control unit that serves also as a power supply, battery back-up and enables to connect PC with a SW control application. The control unit is capable to provide power for up to 8 hours of the system operation. The system can also be powered from the mains (230/110 V AC), from the car or a mobile gas/diesel generator. The system is delivered as a kit that comprises all the necessary components, like connecting cables, and optional components such as a motion sensor, a rain-proof canopy, a printer of protocols and stickers, a LED light for night illumination of the workplace, a power source, a computer and other accessories.

Specification

Power supply	Diesel generator, 230 (110) V/50 (60) Hz, lithium accumulators
Detectors	By default two 5 litre plastic scintillation detectors
Gamma energy range	50 keV to 3 MeV
Dimensions of built portal	1150 x 1300 x 2100 mm
Alarms	acoustic and visual
Control unit	Box with electronics for power supply management, connection of detectors and in-built PC with a SW application and other functions.
Software	PortIS package for data processing and system setting
Detection threshold	37 kBq for Cs-137 at 662 keV for each detector and a source at a distance of 0.5 m from the middle of the total length of the detector.
Weight	< 50 kg
Operating temperature	From 0°C to +35°C
Relative humidity	93% (non condensing)

Product Application

- Emergency situations caused by terrorist attacks or incidents in nuclear facilities
- Events with high concentrations of population
- Detection of illicit transportation of nuclear materials
- Other homeland security tasks

Portal Management SW PortIS provides:

- Signal processing from all sensors
- Analysis and evaluation of measured data
- System setting
- Automatic check of the system status
- Management of visual and acoustic alarm indicators
- Entering identification data of measured objects
- Displaying measured results
- Reporting events, alarms and operational information