



VF NUCLEAR



NUCLEAR
POWER PLANTS



WASTE
MANAGEMENT



RESEARCH
CENTRES



INDUSTRY
& MANUFACTURING



NUCLEAR
MEDICINE



Portex-2

PERSONNEL PORTAL MONITOR

KEY FEATURES

- Gasless plastic scintillation detectors
- High sensitivity
- Advanced measurement time statistical algorithms for high throughput
- Walk-through or stop-go measurement mode
- One-way or two-way operation
- All results and events stored in an internal database
- User friendly graphic interface
- Reliable and stable PLC control unit
- Easy access to all components for easy maintenance

PURPOSE

The Portex-2 is a highly sensitive personnel portal monitor to check for contamination by gamma and neutron emitting radionuclides on personnel passing through it. For example, it can be used in nuclear power plants, radiochemical plants, research institutes etc.

An array of six scintillation detectors is used to provide good detection geometry and high sensitivity. Detectors are located in both sides of the portal as standard, optionally also at the top and bottom part to monitor the head and feet respectively. The detectors are positioned in the monitor to cover as much of the surface of the human body as possible.

The monitor allows you to select one of two basic measurement modes:

- walk-through
- stop-go

Measurement starts when a person enters the monitor. The user is informed of the progress and results of the measurement by voice and visual instructions. If the measured values are higher than the preset threshold values, both the visual and audible alarms are activated.

Alarm levels can be set for both individual detectors and the monitor as a whole.

Based on the preset alarm levels, the time required for measuring contamination is automatically determined.

When no one is passing through the monitor, the background level is continuously measured and the stored value is updated.

SPECIFICATION

Detector type	plastic scintillator
---------------	----------------------

Number of detectors	6 - 8
---------------------	-------

Measurement range (^{137}Cs) (assembly with 15 mm shielding)	850 Bq – 40 MBq
--	-----------------

Personnel height range	150-200 cm
------------------------	------------

Dimensions	
• w/o ramp, tower (W×H×D)	(980×2236×715) mm
• with alarm tower (W×H×D)	(980×2590×715) mm
• with ramp (W×H×D)	(980×2236×1669) mm

Pb shielding	
• integrated	0 mm (optional 15 mm / 25 mm)
• external	0 mm (optional 25 mm)

Approximate weight	
• w/o shielding	310 kg
• with 15 mm shielding	560 kg
• with 25 mm shielding	740 kg

Power supply	100 – 240 V, 45 – 65 HZ
--------------	-------------------------

Operational temperature	
Model K1148-02	(+5 to +50)°C
Model K1148-03	(-20 to +55)°C

Interface	Ethernet, USB
-----------	---------------

Units	cps, cpm, dpm, %, ratio, Bq, Ci, Bq/cm ² , Ci/cm ²
-------	---

Ingress protection	
Model K1148-02	IP 40
Model K1148-03	IP 52

RELATED PRODUCTS

ExitScan-2	Personnel Exit Monitor
HF	Hand-Foot Contamination Monitor with 6 detectors
HF-4	Hand-Foot Contamination Monitor with 4 detectors
HM-4	Hand Contamination Monitor
FCM-11	Frisking Contamination Monitor
PAM-100	Portable Activity Meters
PAM-170	Portable Activity Meters

MODELS

K1148-02	Portex-2, standard model
K1148-03	Portex-2, model for outdoor use with an increased temperature range and ingress protection



Portex-2 with entry ramps and an additional optical-acoustic signalling unit

OPTIONAL FEATURES

Head detector

Foot detector

Personal ID card reader

Integrated IP camera with configurable recording

Integrated lead shielding of 15 mm or 25 mm

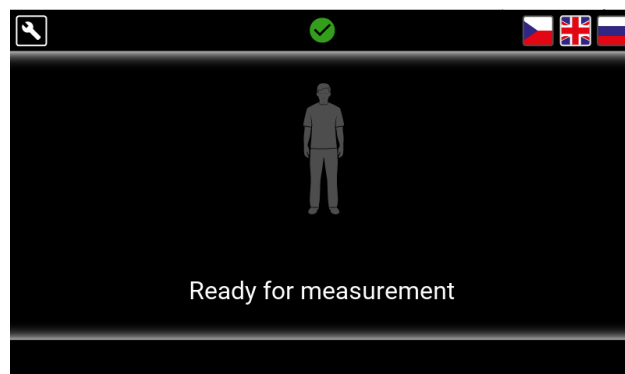
Additional external shielding of side walls 25 mm

Battery backup power supply

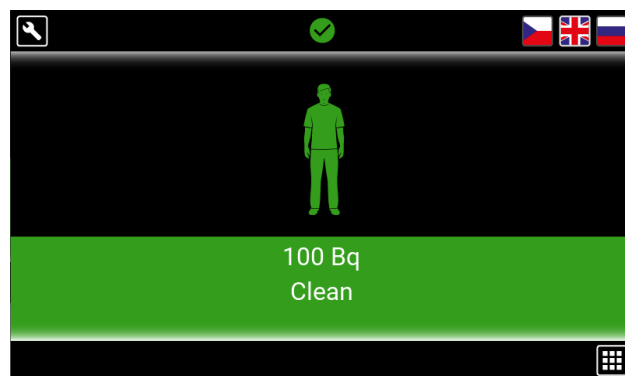
Entry ramps

Additional optical-acoustic signalling unit

Additional push-button or lock and key for the alarm acknowledgement



"Ready for Measurement"



„Not contaminated“