

PERSONAL RADIATION DETECTORS PM1401P PM1401PB

COMBINE THE AMBIENT DOSIMETER AND A PORTABLE GAMMA
RADIATION MONITOR FUNCTIONS

Purpose

PM1401P and PM1401PB implement an improved search algorithm for detecting and localizing gamma radiation sources, as well as for measuring ambient dose equivalent rate and ambient dose equivalent.

Functions

- **Search (detection and localization)** of radioactive and nuclear materials
- Measurement of gamma radiation **ambient dose equivalent rate $\dot{H}^*(10)$ (DER)** and **ambient dose equivalent $H^*(10)$ (DE)**.

Features

- Highly sensitive combination of CsI(Tl) and plastic scintillator with DER and DE extended range
- In search mode instrument displays the gamma channel count rate in pulses per second
- Sound, visual and vibration alarms warn of set thresholds exceeding
- Instrument complies with the GOST P 51636-2000 detection requirements
- It is possible to record and store the instrument operation history in non-volatile memory
- PC connection via USB-C (PM1401P and PM1401PB) and Bluetooth (PM1401PB)
- Long battery life
- IP67 sealed housing, small weight and size.

Applications

- Customs and border services
- Emergency and fire services
- Civil defense units
- Radiation, Chemical, and Biological Protection Forces
- Scrap metal collection industry
- Transport organizations
- Nuclear power plants (NPP).



GAMMA PERSONAL RADIATION DETECTORS PM1401P PM1401PB



Specification

Detector	CsI(Tl) SiPM and plastic scintillator
Gamma radiation sensitivity <ul style="list-style-type: none"> for ^{137}Cs, not less than for ^{241}Am, not less than 	100 c^{-1} ($\mu\text{Sv/h}$) 200 c^{-1} ($\mu\text{Sv/h}$)
Gamma count rate indication range	from 1.0 to 9999 c^{-1}
Registered energies range	from 0.033 to 3.0 MeV
Gamma radiation DER measurement range	from 0.1 $\mu\text{Sv/h}$ to 300 mSv/h
DER measurement error	from -17% to +25%
Measurement range of gamma radiation DE	from 0.1 μSv to 2.0 Sv
DE measurement error	$\pm 20\%$
Threshold levels in the entire measurement range of DER and DE	two threshold levels for DER two threshold levels for DE
Alarm types	light, sound, vibration (the signal frequency increases with gamma radiation increasing intensity)
Memory	non-volatile, up to 2000 events
PC communication (OC Windows)	USB Type C Bluetooth (PM1401PB)
Power supply	one battery or accumulator (type AAA)
Battery lifetime	no less to 800 hours for battery no less to 500 hours for accumulator
Operating conditions <ul style="list-style-type: none"> ambient air temperature relative humidity 	from $-30\text{ }^{\circ}\text{C}$ to $50\text{ }^{\circ}\text{C}$ up to 95 % at $35\text{ }^{\circ}\text{C}$
Ingress protection	IP67
Drop test on concrete floor	1.0 m
Dimensions	74 × 67 × 40 mm
Weight	$\leq 200\text{ g}$

Design and specifications of the product can be changed without further notice.

Radmetron Ltd.
51, Skorina st., Minsk
220084 Republic of Belarus
phone: +375 17 33-66-860
+375 17 33-66-868
info@radmetron.com



radmetron.com

