



Innovating Radiation Detection Technologies Since 1992

RADIATION MONITOR PM1405



The PM1405 Radiation Monitor is designed for a wide range of radiation safety applications.

The instrument measures beta radiation flux density from contaminated surfaces and ambient dose equivalent rate of gamma and X-ray radiation, alerts the user with audible alarms when preset radiation levels are exceeded, and has the search mode with beeps at every detected count.



Application-specific user software allows for the remote control of the instruments connected to a PC through USB interface from any PC integrated into the network.



This function allows an administrator to monitor and control operation of each instrument.

Features

- Measurement of gamma and X-ray radiation
- Measurement of beta-particles flux density
- Mode of searching for beta, gamma and x-ray radiation sources
- Large LCD display with backlight
- Audible alarm
- Data logging capability
- PC communication via USB interface
- Universal power supply: two AA batteries or from PC via USB
- Light weight and small dimensions

Applications

- First responders
- Custom and border patrol officers
- Radiological and isotope laboratories
- Bank personnel
- Wide range of experts whose activity involves the control of radiation sources

ALARM

LOCATION

**MEASUREMENT
BETA, GAMMA**



USB



RADIATION MONITOR

PM1405

SPECIFICATIONS

Gamma detector	Geiger-Mueller counter
Dose equivalent rate (DER) indication range	0.01 $\mu\text{Sv/h}$ - 130 mSv/h
Maximum intrinsic relative error of DER measurement in the range 0.1 $\mu\text{Sv/h}$ - 100 mSv/h	$\pm(20+(1,0 \mu\text{Sv/h})/X)\%$, where X - DER value in $\mu\text{Sv/h}$,
X-ray and gamma radiation energy range	0.04 to 3.0 MeV
Energy dependence relative to 0.662 MeV (^{137}Cs) in DER measurement mode in the energy range 0.06 - 3.0 MeV, not more than	$\pm 30 \%$
Beta flux density indication range	0.1 - $10^4 \text{ min}^{-1}\cdot\text{cm}^{-2}$
Maximum intrinsic relative error of beta flux density measurement relative to ($^{90}\text{Sr}+^{90}\text{Y}$) in the range $6.0 - 10^3 \text{ min}^{-1}\cdot\text{cm}^{-2}$	$(20 + A/\phi) \%$, where ϕ -beta-flux density, $\text{min}^{-1}\cdot\text{cm}^{-2}$, $A = 60 \text{ min}^{-1}\cdot\text{cm}^{-2}$
Beta radiation energy range	0.1 to 3.5 MeV
Beta sensitivity relative to ($^{90}\text{Sr}+^{90}\text{Y}$), not less than	3.5 counts $\cdot\text{cm}^2$
Communication with computer	USB interface
Power requirements	two AA batteries or external from PC via USB
Batteries lifetime	6 months typical
Environmental: - temperature range - relative humidity	-10 to +50°C up to 95 % at 35°C
Weight, max	290 g
Dimensions	148x85x40 mm

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

