



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**



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## 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 ( $^{137}\text{Cs}$ ) 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 $\phi$ -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.

