POLIMASTER®

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.

ALARM

LOCATION

MEASUREMENT BETA, GAMMA

USB

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

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

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SPECIFICATIONS

Gamma detector	**Geiger-Mueller counter**
Dose equivalent rate (DER) indication range	**0.01 μSv/h - 130 mSv/h**
Maximum intrinsic relative error of DER measurement in the range 0.1 μSv/h - 100 mSv/h	**±(20+(1,0 μSv/h)/X)%, where X - DER value in μSv/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	**±30 %**
Beta flux density indication range	**0.1 - 10^4 $min^{-1} \cdot cm^{-2}$**
Maximum intrinsic relative error of beta flux density measurement relative to (^{90}Sr+^{90}Y) in the range 6.0 - 10^3 $min^{-1} \cdot cm^{-2}$	**(20 + A/ϕ) %, where ϕ-beta-flux density, $min^{-1} \cdot cm^{-2}$, A = 60 $min^{-1} \cdot cm^{-2}$**
Beta radiation energy range	**0.1 to 3.5 MeV**
Beta sensitivity relative to (^{90}Sr+^{90}Y), not less than	**3.5 counts·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.

CE ISO 9001

POLIMASTER,112, M. Bogdanovich st., Minsk, 220040, Republic Belarus, phone: (375 17)217 70 80, fax: (375 17)217 70 81