

X-RAY AND GAMMA RADIATION PERSONAL DOSIMETER PM1621 PM1621A



HIGH SENSITIVITY, POWER-EFFICIENCY AND RELIABILITY

Purpose

The most efficient dosimeter, available on the market. These are highly sensitive, durable, reliable instruments with number of unique features.

The PM1621/PM1621A series dosimeters are designed for continuously monitoring of personal dose equivalent of external photon radiation $H_p(10)$, personal dose equivalent rate of external photon radiation $\dot{H}_p(10)$ and time of dose accumulation. PM1621/PM1621A personal electronic dosimeters designed to monitor and measure dose equivalent and dose equivalent rate of X-ray and gamma radiation and record even slightest fluctuations in the ambient background.



Functions

- Continuous measurement of ambient dose equivalent $H^*(10)$ and ambient dose equivalent rate $\dot{H}^*(10)$ of gamma and X-ray radiation
- Indication of automatically calculated time of safe stay close to the detected radiation source with alternate display of the current dose rate level
- Visual and audible alarm when the user-specified dose rate and dose thresholds are exceeded
- Two independent alarm thresholds for dose and dose rate
- Storage of up to 1000 history events
- Communication with a PC via IR

Features

- Wide dose rate measurement range: from natural background to 1 Sv/h
- Ease of use, two-button control
- Impact-resistant, sealed enclosure with IP67 protection rating
- Lightweight and compact

Application

- First responders and fire services
- Customs and border services
- Radioisotope laboratories
- Nuclear power plants
- Medical workers



PERSONAL DOSIMETER PM1621 PM1621A



Specifications

Detector	Geiger-Muller tube
Dose rate measurement range <ul style="list-style-type: none">• PM1621• PM1621A	0.1 µSv/h – 0.1 Sv/h 0.1 µSv/h – 1.0 Sv/h
Dose rate thresholds range	within all dose rate measurement range
Dose measurement range	1 µSv – 9.99 Sv
Dose thresholds range	within all dose measurement range
Dose rate measurement accuracy	$\pm(15+0.0015/H+0.01H)$ %, where H is the dose equivalent rate, mSv/h
Dose measurement accuracy	± 15 %
Energy range	10.0 keV – 20.0 MeV
Energy response relative to 0.662 MeV (^{137}Cs) within the energy range	± 30 %
Response time at discontinues variation of dose rate (according to IEC 61526), no more	5 s at increase 10 s at decrease
Variation coefficient	< 15 %
Maintains performance after short-term exposure to the maximum permissible gamma radiation <ul style="list-style-type: none">• PM1621• PM1621A	10 µSv/h 10 Sv/h
Alarm types	audible
PC communication	IR
Drop test on concrete floor	0.7 m
Power supply	one AA battery
Battery lifetime	12 months
Battery discharge indication (partial and critical)	LCD indication
Operating conditions <ul style="list-style-type: none">• temperature range• relative humidity• atmosphere pressure	from –40 °C to 60 °C up to 95 % at 35 °C from 84 to 106.7 kPa
Ingress protection	IP67
Dimensions	87 × 72 × 39 mm
Mass (with battery)	≤ 165 g

Radmetron Ltd.

51, Skorina St., Minsk
220141 Republic of Belarus
phone: +37517 3963675
+37517 2686819
fax: +37517 2642356
info@radmetron.com



radmetron.com



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