

# X-RAY AND GAMMA RADIATION PERSONAL DOSIMETERS PM1621M PM1621MA



DOSIMETERS WITH THE SEARCHING  
ALGORITHM FOR DETECTION AND LOCATION  
OF RADIOACTIVE MATERIALS

## Purpose

PM1621M and PM1621MA dosimeters are designed for continuous round-the-clock monitoring of the radiation situation.

The device can be used stand-alone or as part of an operational system adapted to the individual needs of the client for routine and emergency dosimetry monitoring.

## Functions

- Measurement of personal dose equivalent rate of gamma and X-ray radiation  $\dot{H}_p(10)$
- Measurement of personal dose equivalent of gamma and X-ray radiation  $H_p(10)$
- Measurement of dose accumulation time
- Search (detection and localization) of radioactive and nuclear materials

## Features

- Combines the functions of a dosimeter and a search device
- Sound, light and vibration alarms
- Non-volatile memory
- Communication with PC using IR interface
- Wide energy and dose rate measurement range
- Simplicity and convenience of operation
- Sealed IP67 shockproof housing
- Lightweight and compact

## Application

- Medical institutions
- State security agencies
- Emergency and fire services
- Customs and border services
- Radiological and isotope laboratories



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## Specifications

Detector	Geiger-Muller tube
Dose rate measurement range <ul style="list-style-type: none"><li>• PM1621M</li><li>• PM1621MA</li></ul>	0.1 $\mu$ Sv/h – 0.1 Sv/h 0.1 $\mu$ Sv/h – 1.0 Sv/h
Dose rate thresholds range	within all dose rate measurement range
Dose measurement range	1 $\mu$ Sv – 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	$\pm 15$ %
Energy range	10 keV – 20 MeV
Energy response relative to 0.662 MeV ( $^{137}\text{Cs}$ ) within the energy range	$\pm 30$ %
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 %
Alarm types	audible, visual, vibration
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"><li>• temperature range</li><li>• relative humidity</li><li>• atmosphere pressure</li></ul>	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)	$\leq 185$ g

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

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