

# X-RAY AND GAMMA PERSONAL DOSIMETER PM1611 / PM1611B

## MEASUREMENT OF CONTINUOUS AND PULSED X-RAY AND GAMMA RADIATION

### Purpose

PM1611 is a compact electronic personal dosimeter designed for real-time control of radiation situation and measurement of personnel exposure. Device is an excellent instrument for personnel, exposed to pulse X-ray and gamma radiation.

### Functions

- Measurement of **personal dose equivalent rate** (dose rate  $H_p(10)$ ) of continuous and pulsed X-ray and gamma radiation
- Measurement of **personal dose equivalent** (dose  $H_p(10)$ ) of continuous and pulsed X-ray and gamma radiation
- Indication of user's safe stay time in the current radiation background
- Audible, visual and vibration alarms when preset dose/dose rate threshold levels are exceeded
- Indication of current time in hours, minutes
- Transfer of information stored in the dosimeter permanent memory to a personal computer (PC)
- Save up to 7500 events of history

### Features

- Measurement of pulsed X-ray and gamma radiation with pulse duration 1 ms and up
- Wide dose rate and dose measurement range
- Control with two buttons
- Wide dose rate and dose measurement range
- Wide energy range from 20 keV to 10 MeV
- Two independent alarm thresholds for dose and dose rate
- Audible, visual and vibration alarms
- PC communication via USB (Type-C)
- Shockproof hermetic case IP67
- Light weight and small dimensions

### Modifications

- **PM1611:** built-in rechargeable battery,
- **PM1611B:** one battery type AAA/LR03

### Applications

- Medical professionals
- Transport staff
- Customs and border services
- Nuclear power plants
- Radiological and Radionuclide isotope laboratories
- First responders
- Professionals exposed to pulse radiation



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## SPECIFICATIONS

Complies with the requirements of IEC 61526.

Detector	Geiger-Mueller tube
Dose rate measurement range	0.1 $\mu$ Sv/h – 10 Sv/h
Dose rate measurement accuracy	$\pm 15$ %
Dose rate threshold range	two threshold levels within all measurement range
Dose measurement range	0,05 $\mu$ Sv – 20 Sv
Dose measurement accuracy	$\pm 15$ %
Dose threshold range	two threshold levels within all measurement range
Energy range	20 keV – 10 MeV
Energy response (relative to 0.662 MeV)	–80/+5% from 15 keV to 33 keV –40/+29% from 33 keV to 48 keV $\pm 29$ % from 48 keV to 3 MeV $\pm 50$ % from 3 MeV to 10 MeV
Response time at increase in dose rate (according to IEC 61526), no more	2 s
Alarm type	audible, visual, vibration
PC communication	USB (Type-C)
Drop test on wood floor	1.5 m
Power supply	PM1611: built-in rechargeable battery, charging via USB PM1611B: one battery type AAA/LR03
Rechargeable battery capacity	2 months
Low battery (partial and critical)	Indication on LCD
Operation conditions: <ul style="list-style-type: none"><li>• - temperature from</li><li>• - humidity</li><li>• - atmospheric pressure</li></ul>	–20 °C up to 50 °C up to 98 % at 35 °C from 84 to 106.7 kPa
Ingress protection	IP67
Dimensions	PM1611: 60 × 65 × 22 mm PM1611B: 60 × 65 × 25 mm
Mass	PM1611: $\leq 70$ g PM1611B: $\leq 80$ g

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

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