POLIMASTER®

CONTINUOUS AND PULSE X-RAY AND GAMMA RADIATION PERSONAL DOSIMETERS

PM1610
PM1610A

These electronic personal dosimeters are excellent instruments for personnel, exposed to pulsed X-ray and gamma radiation.

The instruments provide measurement of dose equivalent and dose equivalent rate of continuous and pulsed X-ray and gamma radiation, as well as time of dose accumulation.

Devices have audible, visual and vibration alarms to warn the user when preset dose/dose rate threshold levels are exceeded.

For reading data from dosimeters the special software Personal Dose Tracker is provided. It allows to record and monitor radiation exposure of users of dosimeters.

Devices have long life built-in rechargeable battery, charging via USB.

γ X-ray

ALARM

PULSE RADIATION

MEASUREMENT

USB

Features

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

Applications

- Medical professionals
- First responders
- Customs and border patrol
- Radiological and Radionuclide isotope laboratories
- Professionals exposed to pulse radiation

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SPECIFICATIONS

	PM1610	PM1610A
Detector	Geiger-Mueller tube	
Dose equivalent rate (DER) range	0.01 µSv/h - 12.0 Sv/h	
DER threshold range	Two threshold levels within all measurement range	
DE measurement range: - continuous photon radiation (current) - pulsed photon radiation (pulse duration ≥1 ms)	0.05 µSv to 10.0 Sv 10 µSv to 10.0 Sv	0.05 µSv to 20.0 Sv 10 µSv to 20.0 Sv
DE threshold range	Two threshold levels within all measurement range	
Minimum pulse duration of X-ray and gamma radiation	1 ms at multiple exposure (more than 10 pulses) 10 ms at single exposure	
Accuracy of DER measurement in the range 0.1 mSv/h - 10 Sv/h	±(15+0.0015/Ḣ)% where Ḣ is DER value in mSv/h	±(10+0.0015/Ḣ+0.0015Ḣ)% where Ḣ is DER value in mSv/h
Accuracy of DE measurement in the range 0.05 mSv - 10 Sv	±20%	
Energy range	20 keV - 10 MeV	
Energy response relative to 0.662 MeV (^{137}Cs)	- 60 % from 20 to 33 keV - 40 % from 33 to 48 keV ± 30 % from 48 keV to 3 MeV ± 50 % from 3 to 10 MeV	
Communications	USB interface	
Automatic data logging	7500 data points	
Features	- audio, visual, vibration alarm - holder with clip	
Power supply	Built-in rechargeable battery, charging via USB	
Rechargeable battery capacity	30 days	
Low battery (partial and critical)	Indication on LCD	
Operating conditions: - temperature range - pressure	-20…+50°C 70-106.7 kPa	
Case Protection Class	IP65	
Dimensions	58x58x18 mm	
Weight	70 g	

The instrument design and specifications can be changed without further notice.

CE

TÜV International Certification TÜV THÜRINGEN TIC
Quality management system ISO 9001
• Customer focus
• Customer satisfaction
• Continuous improvement
• System/process effectiveness
ID 15 100 148764
www.tuev-thueringen.de

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