POLIMASTER®

Radiation Detection Technologies

ELECTRONIC PERSONAL DOSIMETER PoliSimeter™ ERB

PoliSimeter series of electronic personal dosimeters (EPDs) is a **next generation** of the well-known **PM1610 series** by Polimaster, which was a trusted solution on the market for nearly 15 years, with over 20,000 dosimeters sold. Building on the legacy of the PM1610, the PoliSimeter offers enhanced capabilities for extended measurement of **personal dose Hp(10)** and **dose rate Ḣp(10)** of both continuous and pulsed X-ray and gamma radiation. The PoliSimeter is designed to meet the latest industry requirements and features a USB-C port for convenient connectivity and data transfer.

Equipped with shockproof rubberized case, a bright high-contrast display with LED backlight, and large, easy-to-press buttons PoliSimeter is designed for convenient use, even with protective gloves on.

PoliSimeter ERB model has an **extended range** of dose measurement **up to 20 Sv** for use in high-radiation environments, providing critical safety and monitoring functionality. Instead of a rechargeable battery, this model is powered by **AAA (LR03) battery** which is easy to replace, affordable and safe to handle.

Applications

- First responders
- Industrial facilities
- Police and security
- Nuclear power plants
- Healthcare professionals
- Customs and border control
- Anyone working under the risk of X-ray and gamma radiation exposure

Features

- Small and lightweight
- Shockproof hermetic case
- USB-C communication with PC
- Audible, visual and vibration alarms
- Simple navigation with two large buttons
- Measurement of pulsed photon radiation
- Wide dose and dose rate measurement ranges
- Easily replaceable long-life AAA battery: 500 hours

γ XRAY IP65

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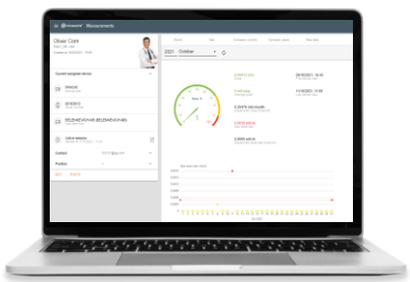
SPECIFICATIONS

Detector	Geiger-Mueller tube
Types of radiation	X-ray and gamma radiation
Measurement quantities	Hp(10); $\dot{H}$p(10)
Dose measurement range	0.05 µSv to 20 Sv
Dose rate measurement range	0.1 µSv/h to 10 Sv/h
Energy range	20 keV to 10 MeV
Combined energy and angular response (Ref. ^{137}Cs)	−29 % to +67 % (48 keV to 1.25 MeV; 0° to 60°) *IEC 61526:2024 compliant*
Accuracy (Ref. ^{137}Cs at 300 µSv/h)	±5 %
Dose rate linearity (0.1 µSv/h to 1 Sv/h)	-13 % to +18 % *IEC 61526:2024 compliant*
Statistical fluctuations for dose and dose rate	*IEC 61526:2024 compliant*
Pulsed radiation	
– pulse width	>1 ms
– dose range	10 µSv to 20 Sv

Memory	7500 events
Alarms	visual, audible, vibration
Communication	USB-C
Power supply	AAA (LR03) battery
Battery lifetime (average dose rate < 0.3 µSv/h, active alarms < 20 s / 24 h)	500 hours (typical)

Ingress protection	IP65
Drop test	1 m (concrete surface)
Dimensions	≤ 71 × 59 × 20 mm
Weight	≤ 90 g
Operating conditions	
– ambient temperature	–20 °C to 50 °C
– atmospheric pressure	84 kPa to 106.7 kPa
– relative humidity	up to 98 % at 35 °C

Holder with a clip for secure fastening



Compatible with PoliRead® Automated Personal Dosimetry System

OPTIONAL

Factory calibration approved under LST EN ISO/IEC 17025:2018 (LA NAB accreditation certificate No. LA.225-02) is available upon request.

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