



**POLIMASTER**<sup>®</sup>  
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  $\dot{H}_p(10)$**  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



### SPECIFICATIONS

<b>Detector</b>	Geiger-Mueller tube
<b>Types of radiation</b>	X-ray and gamma radiation
<b>Measurement quantities</b>	Hp(10); Ĥp(10)
<b>Dose measurement range</b>	0.05 $\mu$ Sv to 20 Sv
<b>Dose rate measurement range</b>	0.1 $\mu$ Sv/h to 10 Sv/h
<b>Energy range</b>	20 keV to 10 MeV
<b>Combined energy and angular response</b> (Ref. $^{137}\text{Cs}$ )	-27 % to +67 % (48 keV to 1.25 MeV; 0° to 60°) <i>IEC 61526:2024 compliant</i>
<b>Accuracy</b> (Ref. $^{137}\text{Cs}$ at 300 $\mu$ Sv/h)	$\pm 5$ %
<b>Dose rate linearity</b> (0.1 $\mu$ Sv/h to 1 Sv/h)	-13 % to +18 % <i>IEC 61526:2024 compliant</i>
<b>Statistical fluctuations for dose and dose rate</b>	<i>IEC 61526:2024 compliant</i>
<b>Pulsed radiation</b>	
– pulse width	> 1 ms
– dose range	10 $\mu$ Sv to 20 Sv

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

<b>Ingress protection</b>	IP65
<b>Drop test</b>	1 m (concrete surface)
<b>Dimensions</b>	$\leq 71 \times 59 \times 20$ mm
<b>Weight</b>	$\leq 90$ g
<b>Operating conditions</b>	
– 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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