



**POLIMASTER**<sup>®</sup>



Innovating Radiation Detection Technologies Since 1992

# X-RAY AND GAMMA RADIATION ELECTRONIC PERSONAL DOSIMETER

## PM1621 PM1621A



The most efficient dosimeter, available on the market. These are highly sensitive, durable, reliable instruments with number of unique features.

Recommended to use by Law Enforcement and Security agencies, scientists, medical and other professionals, exposed to gamma and X-ray radiation.

**PM1621/PM1621A** personal electronic dosimeters designed to monitor and measure dose equivalent and dose equivalent rate of X-ray and gamma radiation and record even slightest fluctuations in the ambient background.

The PM1621/PM1621A series dosimeters are designed for continuously monitoring of:

- Personal dose equivalent rate of external photon radiation Hp(10)
- Personal dose equivalent of external photon radiation Hp(10)
- Time of dose accumulation.



### Features

- Easy to use, two-button operation
- Wide energy range 10 keV – 20 MeV
- Wide dose rate range: from natural background levels up to 2Sv/h
- Two independent dose and dose rate alarm thresholds
- Adjustable audio and visual alarms
- Non volatile memory for 1000 events readings of dose accumulation history (dose rate changes)
- LCD display, electroluminescent backlight
- Shockproof hermetic case
- PC communication via IR interface
- Light weight and small dimensions

### Applications

- Medical professionals
- Personnel of nuclear facilities
- Radiological and radionuclide isotope laboratories
- Emergency services
- Scientists
- Other professionals, exposed to gamma and X-ray radiation

### Versions

- **PM1621** - up to 0.2 Sv/h
- **PM1621A** - up to 2.0 Sv/h

**ALARM**

**LOCATION**

**MEASUREMENT**





# X-RAY AND GAMMA RADIATION ELECTRONIC PERSONAL DOSIMETER PM1621/PM1621A

## SPECIFICATIONS

<b>Detector</b>	<b>Geiger-Muller tube</b>
<b>Dose equivalent rate (DER) range Hp(10)</b> PM1621 PM1621A	<b>0.01 μSv/h - 0.2 Sv/h</b> <b>0.01 μSv/h - 2.0 Sv/h</b>
<b>Dose rate and dose threshold range</b>	<b>within all measurement range</b>
<b>Dose equivalent (DE) range Hp(10)</b>	<b>0.01 μSv - 9.99 Sv</b>
<b>Accuracy of DER measurement in the range:</b> 0.1 μSv/h - 0.1 Sv/h for PM1621 0.1 μSv/h - 1.0 Sv/h for PM1621A	<b>±(15 + 0.0015/H + 0.01H)%</b> H is the dose equivalent rate, mSv/h
<b>Accuracy of DE measurement</b> in the range 1.0 μSv- 9.99 Sv	<b>±15%</b>
<b>Energy range</b>	<b>10 keV - 20 MeV</b>
<b>Energy response relative</b> to 0.662 MeV (Cs-137) within the full energy range	<b>±30%</b>
<b>Response time at discontinuous variation of DER</b> (according to IEC 61526), no more than	<b>5s - at increase</b> <b>10s - at decrease</b>
<b>Coefficient of variation</b>	<b>&lt; 15 %</b>
<b>Survive after momentary influence of maximum permissible gamma radiation:</b> PM1621 PM1621A	<b>1 Sv/h</b> <b>10 Sv/h</b>
<b>Additional functions</b>	<b>PC communication mode</b>
<b>Drop test on concrete floor</b>	<b>0.7 m</b>
<b>Power supply</b>	<b>One AA battery</b>
<b>Battery lifetime</b>	<b>12 months</b>
<b>Battery discharge indication</b> (partial and critical)	<b>indication on LCD</b>
<b>Operating conditions:</b> - temperature range - LCD indication - relative humidity (at 35°C) - pressure	<b>- 40 ... + 60 °C</b> <b>- 20 ... + 60 °C</b> <b>up to 98%</b> <b>84 - 106.7 kPa</b>
<b>Protection degree of case</b>	<b>IP67</b>
<b>Dimensions</b>	<b>87 x 72 x 35 mm</b>
<b>Weight</b> (with battery), no more than	<b>150 g</b>

### Meets most relevant parts of IEC 61526, and ANSI N42.20

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



### PACIFIC-TEC SCIENTIFIC PTE LTD

33 Ubi Avenue 3, #06-48 Vertex Tower A, Singapore 408868

Tel: +65 6342 1530 Fax: +65 6342 1531 WhatsApp: +65 8874 6269

Email: sales@pacific-tec.sg

Website: www.pacific-tec.sg