



**POLIMASTER®**



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**Innovating Radiation Detection Technologies Since 1992**

## **PERSONAL RADIATION DETECTOR/DOSIMETER**

### **PM1621M PM1621MA**



**PM1621M/PM1621MA are unique personal electronic radiation detector/dosimeter which is capable to detect and search for radiation source as well as monitor for dose accumulation.**

**Recommended to use by first responders and Homeland Security professionals who must be able to detect and locate the radiation source as well as determine the users's exposure levels to gamma and X-ray radiation sources.**



**PM1621M/PM1621MA is designed to provide continuous measurement of:**

- Personal dose equivalent rate of external gamma and X-ray radiation
- Personal dose equivalent of external gamma and X-ray radiation
- Time of dose accumulation



**PM1621M/PM1621MA series instruments are also designed to search for radiation sources as regular Portable radiation Detectors with the response time corresponding to **ANSI N42.33 type 2 standard****

#### **Applications:**

PM1621M/PM1621MA can operate as independent field units or in conjunction with other instruments as part of a system. In this way they provide efficient everyday and emergency monitoring of the personnel and facilities where is the risk of exposure to external X-ray or gamma radiation.

**ALARM**

**LOCATION**

**MEASUREMENT**

#### **Features**

- Combines Personal Radiation Detector and Dosimeter functionality
- Easy to use, two-button operation
- Shows the user accumulated dose
- Four independent dose and dose rate alarm thresholds
- Allows searching for radiation sources
- Vibration/Audible/Light Alarms
- Wide energy and dose rate range
- PC communication by IR interface
- Storage of 1000 events history
- Shockproof hermetic case
- Light weight and small dimensions

#### **PM1621M/PM1621MA**

Instruments have a unique combination of radiation detection and dose accumulation capabilities. They are perfect low cost solution for first responding agencies giving them an opportunity to detect and evaluate radiation levels as well as determine exposure levels from gamma and X-ray radiation sources, alerting user when preset thresholds for the dose and/or dose rate levels are exceeded.



**IRDA**



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# PORTABLE RADIATION DETECTOR

## PM1621M/PM1621MA

### SPECIFICATIONS

Detector	Advanced Geiger-Muller tube
<b>Dose equivalent rate range (DER):</b> PM1621M PM1621MA	<b>0.01 <math>\mu</math>Sv/h - 0.2 Sv/h</b> <b>0.01 <math>\mu</math>Sv/h - 2 Sv/h</b>
<b>Dose equivalent rate threshold range</b>	<b>Two thresholds within all DER measurement range</b>
<b>Dose equivalent range (DE)</b>	<b>0.01 <math>\mu</math>Sv - 9.99 Sv</b>
<b>Dose equivalent threshold range</b>	<b>Two thresholds within all DE measurement range</b>
<b>Accuracy of DER measurement in the range:</b> - 0.1 $\mu$ Sv/h - 0.1 Sv/h for PM1621M - 0.1 $\mu$ Sv/h - 1.0 Sv/h for PM1621MA	<b><math>\pm(15 + 0.0015/H + 0.01H)\%</math></b> H is the dose equivalent rate, mSv/h
<b>Accuracy of DE measurement</b> in the range 1.0 $\mu$ Sv- 9.99 Sv	<b><math>\pm 15\%</math></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><math>\pm 30\%</math></b>
<b>Time of response at discontinuous variation of DER</b> (in compliance with IEC 61526 and ANSI N42.33 Type2), no more than	<b>4s - at increase</b>
<b>Additional functions</b>	<ul style="list-style-type: none"> <li>- <b>PC communication mode</b></li> <li>- <b>Vibration alarm</b></li> <li>- <b>Sound operations mode</b> 85 dB(A) at 1 foot</li> <li>- <b>Metal belt clip</b></li> </ul>
<b>Automatic data logging</b>	<b>1000 point data log</b> (adjustable recording intervals from 1 second)
<b>Power supply</b>	<b>one battery AA</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 - pressure	<b>- 40 ... + 60 °C</b> <b>70 - 106.7 kPa</b>
<b>Degree of protection provided by housing</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>

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

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

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