



POLIMASTER[®]



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



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

SPECIFICATIONS

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

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

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



North America

Polimaster Inc.
44873 Falcon Place, Suite 128
Sterling, VA 20166, USA
Phone: +1 703 525 5075
Fax: +1 703 525 5079
info@polimaster.us

www.polimaster.us

Europe

Polimaster Europe UAB
Ezero Str. 4, LT-13264 Didziasalis,
Vilnius region, Republic of Lithuania
Phone: +370 5 210 2323
Fax: +370 5 210 2322
polimaster@polimaster.lt

www.polimaster.eu

Asia, Africa, Latin America, Australia and Oceania

Polimaster Ltd.
51, Skoriny St.,
Minsk, 220141, Republic of Belarus
Phone: +375 17 3963675, +375 17 2686819
Fax: +375 17 2642356
polimaster@polimaster.com
www.polimaster.com

Japan

Polimaster Japan K.K.
AUBE2 5-177 Kuratsuki
Kanazawa, Ishikawa Prefecture
920-8203 Japan
Phone: + 81 076 201 8623
Fax: + 81 076 201 8624
pacific@polimaster.jp
www.polimaster.jp