



POLIMASTER®



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Innovating Radiation Detection Technologies Since 1992

CONTINUOUS AND PULSE X-RAY AND GAMMA RADIATION PERSONAL DOSIMETER PMT610



This personal dosimeter is an excellent instrument for personnel, exposed to pulsed X-ray and gamma radiation

The instrument provides measurement of dose equivalent and dose equivalent rate of continuous and pulsed X-ray and gamma radiation, as well as time of dose accumulation

It incorporates audible, visual and vibration alarms to warn the user when preset dose/dose rate threshold levels are exceeded.

The instrument also has an additional audible signal for every registered gamma quantum.



Features

- Easy to use
- Measurement of pulse X-ray and gamma radiation with pulse duration 1 ms and up
- Wide dose rate and dose measurement range from background to 10 Sv/h and 12 Sv, respectively
- Two independent alarm thresholds for dose and dose rate
- Audible, visual and vibration alarms
- Wide energy range from 20 keV to 10 MeV
- PC communication via USB
- Shockproof hermetic case
- Light weight and small dimensions

Applications

- Medical professionals
- First responders
- Customs and border patrol
- Radiological and Radionuclide isotope laboratories
- Other professionals exposed to pulse radiation

ALARM

LOCATION

MEASUREMENT

USB

CE ISO 9001

Zetalab



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PM1610

SPECIFICATIONS

| | |
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| Detector | Geiger-Mueller tube |
| Dose equivalent rate (DER) range | 0.01 µSv/h - 12.0 Sv/h |
| DER threshold range | Two threshold levels within all measurement range |
| DE measurement range: - continuous photon radiation (current) - pulsed photon radiation (pulse duration not less than 1 ms) | 0.05 µSv to 10.0 Sv 10 µSv to 10.0 Sv |
| DE threshold range | Two threshold levels within all measurement range |
| Minimum pulse duration of X-ray and gamma radiation | 1 ms at multiple exposure (more than 10 pulses) 10 ms at single exposure |
| Accuracy of DER measurement in the range 0,01 µSv/h - 0,1 Sv/h | ±(15+0.0015/H+0.001 H)% where H is DER value in mSv/h |
| Accuracy of DE measurement in the range 0,05 µSv - 10 Sv | ±20% |
| Energy range | 20 keV - 10 MeV |
| Energy response relative to 0.662 MeV (¹³⁷Cs) | 50% from 20 keV to 30 keV 25% from 30 keV to 3 MeV 50% from 3 MeV to 10 MeV |
| Response time at discontinuous DER variation (in compliance with IEC 61526) | 5 s - at increase |
| Features | - PC communication via USB - Audio alarm - Visual alarm - Vibration alarm - Alligator clip on chain |
| Automatic data logging | 1000 data points |
| Power supply | Built-in rechargeable battery, charging via USB |
| Rechargeable battery capacity | 30 days |
| Low battery (partial and critical) | Indication on LCD |
| Operating conditions: - temperature range - pressure | -20...+50°C 70-106,7 kPa |
| Case Protection Class | IP65 |
| Dimensions | 57x58x17,5 mm |
| Weight | 70 g |

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



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