



Innovating Radiation Detection Technologies Since 1992

## CONTINUOUS AND PULSE X-RAY AND GAMMA RADIATION PERSONAL DOSIMETERS

### PM1610 PM1610A PM1610-01 PM1610A-01



**These electronic personal dosimeters are excellent instruments for personnel, exposed to pulsed X-ray and gamma radiation.**

The instruments provide measurement of dose equivalent and dose equivalent rate of continuous and pulsed X-ray and gamma radiation, as well as time of dose accumulation.

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

For reading data from dosimeters the special software Personal Dose Tracker is provided. It allows to record and monitor radiation exposure of users of dosimeters.

All versions have long life built-in rechargeable battery, charging via USB.

**PM1610-01/PM1610A-01** versions can be used with different types of wireless readers in compliance with ISO 15693.



#### 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
- 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
- Professionals exposed to pulse radiation

**ALARM**

**LOCATION**

**MEASUREMENT**





## CONTINUOUS AND PULSE X-RAY AND GAMMA RADIATION PERSONAL DOSIMETERS

# PM1610      PM1610A PM1610-01   PM1610A-01

### SPECIFICATIONS

	PM1610	PM1610-01	PM1610A	PM1610A-01
Detector	Geiger-Mueller tube			
Dose equivalent rate (DER) range	0.01 $\mu\text{Sv/h}$ - 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 $\mu\text{Sv}$ to 10.0 Sv 10 $\mu\text{Sv}$ to 10.0 Sv		0.05 $\mu\text{Sv}$ to 20.0 Sv 10 $\mu\text{Sv}$ to 20.0 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 0.1 $\mu\text{Sv/h}$ - 10 Sv/h	$\pm(15+0.0015/\dot{H})\%$ where $\dot{H}$ is DER value in mSv/h		$\pm(10+0.0015/\dot{H}+0.0015\dot{H})\%$ where $\dot{H}$ is DER value in mSv/h	
Accuracy of DE measurement in the range 0.05 $\mu\text{Sv}$ - 10 Sv	$\pm 20\%$			
Energy range	20 keV - 10 MeV			
Energy response relative to 0.662 MeV ( $^{137}\text{Cs}$ )	- 60 % from 20 to 33 keV - 40 % 33 to 48 keV $\pm 30\%$ 48 keV to 3 MeV $\pm 50\%$ 3 to 10 MeV			
Communications via USB interface	+	+	+	+
Communications via ISO15693 interface	-	+	-	+
Features	- Audio alarm - Visual alarm - Vibration alarm - Holder with clip			
Automatic data logging	7500 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	58x58x18 mm			
Weight	70 g			

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