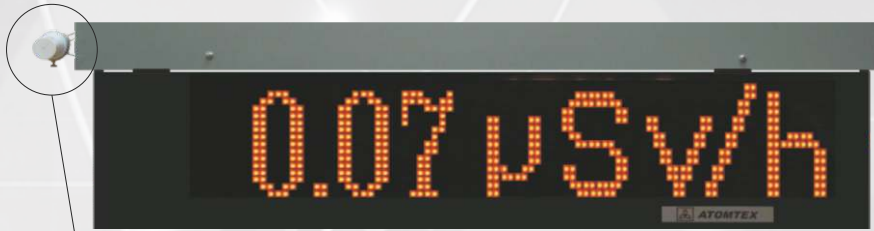


AT2327 Alarm Dosimeter with data display



Gamma radiation
detection unit

*Information about radiation
environment for citizens and staff*



Control unit

Alarm dosimeter is intended for radiation monitoring of radiation-sensitive and radiation-dangerous areas and facilities.

Operating principle

Gamma smart probe is used for measuring of radiation background level.

Dosimeter operation algorithm provides measurement continuity, rapid reaction to background radiation level change and real time display of detection unit data on external display.

Ambient temperature and current time and date is additionally displayed.

Control unit is responsible for controlling the operation modes, performing necessary calculations, storing and backing-up measurement results, as well as for supplying power to devices.

It hosts command console, interface adapter and backup power supply. Control unit is to be installed indoors.



Applications

- Coach and railway terminals, airports, underground railway systems
- Civil defence and security services facilities, high-security objects
- Manufacturing facilities
- Radiation detection and dosimetric laboratories
- Radiological health care facilities
- Nuclear industry facilities

Features

- Wide range of gamma radiation dose rate measurement from background to emergency values
- Smart probe for gamma radiation measuring
- Automatic compensation of intrinsic detector background
- Can operate over a wide temperature range
- High reliability
- Operational self check and fault diagnostics
- Internal backup power supply for up to 3 hour of off-line operation
- History logging of dose rate levels and cases of threshold crossing
- Detection unit and temperature probe can be installed up to 1 km away from data display
- Additional protection from direct weather impact
- No dismantling for servicing



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INSTRUMENTS AND TECHNOLOGIES FOR NUCLEAR
MEASUREMENTS AND RADIATION MONITORING

AT2327 Alarm Dosimeter with data display

Specification

Registered radiation type	Gamma radiation
Detector	Geiger-Muller counter tube
Measurement range of ambient dose equivalent rate	0.1 $\mu\text{Sv/h}$...10 Sv/h
Limits of intrinsic relative measurement error	$\pm 15\%$ max.
Energy range	60 keV...3 MeV
Sensitivity	4.0 cps/ $\mu\text{Sv}\cdot\text{h}^{-1}$
Response time for dose rate measurement (for dose rate $\geq 1 \mu\text{Sv/h}$)	≤ 3 s (accuracy error $\leq \pm 10\%$)
Energy dependence of sensitivity within energy ranges of 60 keV to 1.25 MeV	-25%...+35%
Ambient temperature monitoring range	-30°C...+50°C
Data display	LED display with step brightness control
Displayed information	Dose rate, ambient temperature, current time and date
Time format	Hours:Minutes, Days:Months
Maximum legibility distance at any time of day	30 m
Working temperature range	
Detection unit and data display	-30°C...+50°C
Control unit	+5°C...+40°C
Relative humidity with air temperature $\leq +35^\circ\text{C}$ without condensation	$\leq 95\%$
Protection class	
Detection unit	IP57
Data display	IP53
Control unit	IP31
Burn-up life	≥ 100 Sv
Power supply	110-230 VAC, 50-60 Hz
Backup power supply	Integrated backup power supply +24 V
Power consumption	100 W max.
Overall dimensions	
Data display with detection unit	1095x392x300 mm
Control unit	500x650x150 mm
Weight	
Data display with detection unit	25 kg
Control unit	30 kg

Design and specifications are subject to change without notice

Capabilities

Dose rate



Ambient temperature



Current date and time



AT2327 Alarm Dosimeter meets

Safety standard requirements: IEC 61010-1:2001

EMC requirements:

EN 55011:2009, IEC 61326-1:2006,
IEC 61000-4-2:2008, IEC 61000-4-3:2008,
IEC 61000-4-4:2004+A1:2010,
IEC 61000-4-5:2005, IEC 61000-4-6:2008,
IEC 61000-4-8:2009, IEC 61000-4-11:2004

AT2327 Alarm Dosimeter has the pattern approval certificates of Republic of Belarus, Russian Federation, Ukraine and Kazakhstan.



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