



*Hygienic
conclusion
of the State
Sanitary-Hygienic
Expertise
5.10/6300 of
February 20, 2002*

*State Sanitary-
Epidemiological
Conclusion for use
in educational
establishments
05.03.02-04/
20545 of
April 09, 2009*

TY Y 33.2-22362867-006:2001

Branches of Use

- Educational programs
- Household use

Purpose of Use

- Measurement of gamma and X-ray radiation ambient dose equivalent rate (DER).
- Measurement of gamma and X-ray radiation ambient dose equivalent (DE).
- Evaluation of surface contamination by beta radionuclides.
- Clock, alarm clock.

Household Application

- Apartment, building and construction monitoring; personal radiation safety; ground-surface of infields and vehicles monitoring.
- Evaluation of radiation contamination of food products, in particular forest berries and mushrooms.
- Visual aids for educational institutions.

Specifications

Measurement ranges and main relative errors:

- Gamma and X-ray radiation ambient dose equivalent rate	0.1 ... 999.9 $\mu\text{Sv/h}$; $\pm (25+2/\dot{H}^*(10))\%$, where $\dot{H}^*(10)$ is a numeric value of measured DER equivalent to $\mu\text{Sv/h}$
- Gamma and X-ray radiation ambient dose equivalent	0.001 ... 9 999 mSv; $\pm 25\%$

Specifications (continued)

- Beta-particles flux density with possible evaluation of surface contamination by beta radionuclides ($^{90}\text{Sr}+^{90}\text{Y}$)	$1/(\text{cm}^2 \times \text{min})$	10 ... 100 000
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Energy ranges of measurement and energy dependence:

- Gamma and X-ray radiation	MeV	0.05 ... 3.0 ; $\pm 25\%$
- Beta radiation	MeV	0.5 ... 3.0

Measurement time intervals	seconds	5 ... 70
Battery life*	hours	6 000
Operating temperature range	$^{\circ}\text{C}$	-10 ... +50
Weight	kg	0.15
Dimensions	mm	120 x 52 x 26

* under gamma background not more than $0.3 \mu\text{Sv/h}$, switched off alarm system

Features

- Three independent measuring channels with alternate indication of data on the single liquid crystal display.
- Built-in gamma, beta sensitive Geiger-Muller counter.
- Automatic setting of measurement intervals and ranges.
- Audio signaling of each registered gamma-quantum or beta-particle.
- Programming of audio alarm threshold level of gamma radiation dose rate.
- Liquid crystal display.
- Two AAA batteries.
- Four-level indication of battery discharge.
- Shock-resistant body.
- Small weight and dimension parameters.

Delivery Kit

- MKS-05 "TERRA-P" dosimeter-radiometer;
- operating manual;
- leather case;
- packing box.

***"TERRA-P" dosimeter-radiometer
is recommended by
the Scientific-Methodical Council under
the Ministry of Education of Ukraine
for use in educational process in secondary
schools***

