

TERRA-P

Dosimeter-Radiometer MKS-05
for Household Use



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

Branches of Use

TY Y 33.2-22362867-006-2001

- 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 farm products.
- Visual aids for educational institutions.

Specifications

Measurement ranges and main relative errors:

- Gamma and X-ray radiation ambient dose equivalent rate	$\mu\text{Sv/h}$	0.1 ... 999.9 ; $\pm(25+2/H^*(10))\%$, where $H^*(10)$ is $\mu\text{Sv/h}$
- Gamma and X-ray radiation ambient dose equivalent	mSv	0.001 ... 9 999 ; $\pm 25\%$
- Beta-particles flux density with possible evaluation of surface contamination by beta radionuclides ($^{90}\text{Sr}+^{90}\text{Y}$)	$1/(\text{cm}^2 \cdot \text{min})$	10 ... 100 000

ECOTEST
Radiation Measurement Instruments

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Specifications (continued)

Energy ranges of measurement and energy dependence:

- Gamma and X-ray radiation	MeV	0.05 ... 3.0 ; ±25%
- Beta radiation	MeV	0.5 ... 3.0
Measurement time intervals	seconds	5 ... 70
Battery life*	hours	6 000
Operating temperature range	°C	-10 ... +50
Weight	kg	0.15
Dimensions	mm	120 x 52 x 26

* under gamma background not more than 0.3 µSv/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 detected gamma-quantum or beta-particle.
- Programming of audio alarm threshold level of gamma radiation dose rate.
- Liquid crystal display.
- Two AAA size 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.

**MKS-05 "TERRA"
dosimeter-radiometer
is recommended by
the Scientific-Methodical Council
under the Ministry of Education
of Ukraine for use in educational
process in secondary schools**

