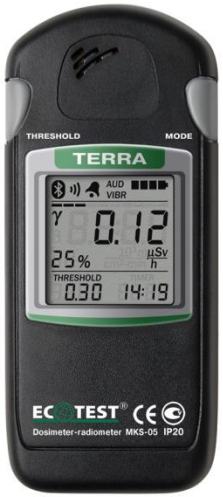
TERRA with Bluetooth channel

Dosimeter-Radiometer MKS-05

- Conforms to the **CE** standards
- Number U1524-07 in State Register for Measuring Instruments
- 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
- ТУ У 33.2-22362867-006-2001
- ТУ У 33.2-22362867-006-01-2003 (military accepted)




THRESHOLD
MODE
TERRA
0.10
23%
0.30 0909
ECOTEST
Dosimeter-radiometer MKS-05 IP20

Description

A top famous product of “ECOTEST” trademark, which is exported to over 70 countries. This is a professional device for official measurements, which measures the level of gamma background, beta contamination, accumulated dose and its accumulation time. Prompt evaluation of gamma background is performed within 10 seconds. With the help of GS Ecotest application measurement results are transferred to smartphones and tablets running Android™ OS via Bluetooth channel in real time. The GS Ecotest application is available on Google Play.
Measurement results can also be transferred to a personal computer.

TERRA has a large display with luminescent backlight, which simultaneously indicates units of measurement, measurement error, threshold level and real time, as well as ten-segment analog indicator of registered radiation intensity. The dosimeter has a built-in memory for 1200 measurements. Sound, vibration and sound-vibration alarms are provided for convenience of use.

The device is in operational service with the Ukrainian Army, it is included in the equipment list of the State Emergency Service of Ukraine, and used for the purposes of the Security Service of Ukraine, Ministry of Internal Affairs of Ukraine, and the State Border Guard Service of Ukraine. TERRA is also supplied to the Army and the Ministry of Emergency Situations of Kazakhstan.

Since 2002 according to the international technical assistance programs TERRA devices have been supplied to the Border Guard Service of Ukraine, Internal Troops of the Ministry of Internal Affairs of Ukraine, the State Emergency Service of Ukraine, the Border Services of Kazakhstan and Uzbekistan.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ECOTEST®
Dosimeter-radiometer MKS-05 IP20

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)
- Measurement of surface beta-particles flux density
- Measurement of ambient dose equivalent accumulation time
- Real time measurement (clock), alarm clock

Branches of Use

Radiological laboratories

Educational programs

Medicine

Sanitary dosimetry and ecology

Features

- Big display with luminescent backlight.
- Simultaneous indication of units of measurement, measurement errors, threshold level and real time on the display.
- Analog ten-segment indicator of registered radiation intensity.
- Ability to perform measurements with a preset error.
- Four-level indication of battery discharge.
- Built-in memory which allows storing up to 1200 measurements.
- Mode of PC connection via Bluetooth.
- Five independent measuring channels with alternate indication of data on the single liquid crystal display.
- Built-in gamma, beta sensitive Geiger-Muller counter.
- Prompt evaluation of gamma background within 10 seconds.
- Automatic subtraction of gamma background at measurement of beta contamination.
- Measurement results averaging, manually and automatically interrupted.
- Automatic setting of measurement intervals and ranges.

- Audio, vibration and vibration-audio alarm of each detected gamma-quantum or beta-particle that can be switched off.
- Two-tone audio, vibration and vibration-audio alarm of exceeded programmed threshold levels.
- Two AAA batteries.
- Shock-resistant body.
- Small weight and dimension parameters.

Specifications

Measurement ranges and main relative errors:

Gamma and X-ray radiation ambient dose equivalent rate (^{137}Cs)	μSv/h	0.1…9 999;
	%	±(15+2/H*(10)), where H*(10) is a numeric value of measured DER equivalent to μSv/h
Gamma and X-ray radiation ambient dose equivalent (^{137}Cs)	mSv	0.001…9 999; ±15%

Beta-particles flux density ($^{90}Sr+^{90}Y$)	1/(cm²×min)	10…100 000;
	%	±(20+200/φβ), where φβ is a numeric value of measured beta-particles flux density equivalent to part./(cm²×min)
Ambient dose equivalent accumulation time and accuracy of measurement		1 min…9 999 h; ±0.1 s per 24 h

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
Resolution of threshold level programming for: – dose rate – dose – flux density	 μSv/h mSv 10³/(cm²×min)	 0.01 0.001 0.01
Battery life*	hours	1 500
Operating temperature range	°C	-20…+50
Weight	kg	0.2
Dimensions	mm	120×52×26

Delivery Kit

- MKS-05 "TERRA" dosimeter-radiometer;
- operating manual;
- leather case;
- "Cadmium ECOMONITOR" software;
- packing box.