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Meets the requirements of IEC 61526 standard

Number U2514-07 in State Register for Measuring Instruments

*State Sanitary-Epidemiological Conclusion # 05.03.02-04/25552
of May 23, 2007*

Branches of Use

- Nuclear power industry
- Emergency Services and Civil Defense
- Radiological laboratories
- Labor protection
- Medicine
- Sanitary and epidemiological services
- Ministry of Internal Affairs
- Metallurgy
- Mining industry
- Radioactive waste storage sites

Purpose of Use

- Measurement of gamma and X-ray radiation individual dose equivalent rate (DER).
- Measurement of gamma and X-ray radiation individual dose equivalent (DE).
- Clock, alarm clock.

Application

The dosimeter may be used as an electronic direct reading device. It can be applied together with "PDC ECOMONITOR" software and as a stand-alone device.

Specifications

Measurement ranges and main relative errors:

- gamma and X-ray radiation individual dose equivalent rate $H_p(10)$	$\mu\text{Sv/h}$	0.1...1 000 000; (1...10 $\mu\text{Sv/h}$; $\pm 20\%$; 10 $\mu\text{Sv/h}$...1 Sv/h; $\pm 10\%$)
- gamma and X-ray radiation individual dose equivalent $H_p(10)$	mSv	0.001 ... 9 999 ; $\pm 15\%$
Energy range of detected gamma and X-ray radiation and energy dependence	MeV	0.05 ... 6.0 (0.05 ... 1.25; $\pm 25\%$)
Recording resolution of dose accumulation history in the nonvolatile memory	minutes	5 ... 255
Time of data storage in the nonvolatile memory	years	not less than 10
Data exchange rate through infrared port	bit/s	38 400
Positive data exchange distance between the dosimeter and the infrared port adapter	m	not more than 0.3
Lithium battery (CR2450) life*	hours	2 200
Operating temperature range	$^{\circ}\text{C}$	-10 ... +50
Weight	kg	0.08
Dimensions	mm	90 x 55 x 10

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

Features

- Stand-alone use or use within automated system of personal dosimetry control.
- Storage of dose accumulation history in the nonvolatile memory with real time reference.
- Transfer of dose accumulation history through the infrared port to the computer.
- Blocking the mode of power supply switch off until the data reading procedure finished.
- DER and DE threshold levels programming of gamma and X-ray radiation with the help of the computer or manually with control keys.
- Blocking certain indication modes in response to the computer command.
- Light and audio alarms when programmed threshold levels exceeded on DER and DE of gamma and X-ray radiation.

Features (continued)

- Display automatic switch off if current gamma background is lower than the preset threshold level with instant switching on at:
 - pressing any control key;
 - gamma background increase above the preset threshold level;
 - alarm clock ringing.
- Periodic self-testing of batteries and detector.
- Energy-compensated Geiger-Muller counter.

Delivery Kit

- DKG-21 "EcotestCARD" dosimeter;
- operating manual;
- case with a clip;
- packing box.

