ТУ У 33.2-22362867-010:2007

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 (see p.71) and as a stand-alone device.

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EcotestCARD | Personal Gamma Radiation Dosimeter DKG-21

Specifications

Measurement ranges and main relative errors:

- gamma and X-ray radiation individual dose equivalent rate $H_p(10)$	μSv/h	0.1...1 000 000; (1...10 μSv/h; ±20%; 10 μSv/h...1 Sv/h; ±10%)
- gamma and X-ray radiation individual dose equivalent $H_p(10)$	mSv	0.001 ... 9 999 ; ±15%
Energy range of detected gamma and X-ray radiation and energy dependence	MeV	0.05 ... 6.0 (0.05 ... 1.25; ±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	°C	-10 ... +50
Weight	kg	0.08
Dimensions	mm	90 x 55 x 10

[*] under gamma background not more than 0.3 μSv/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.

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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.

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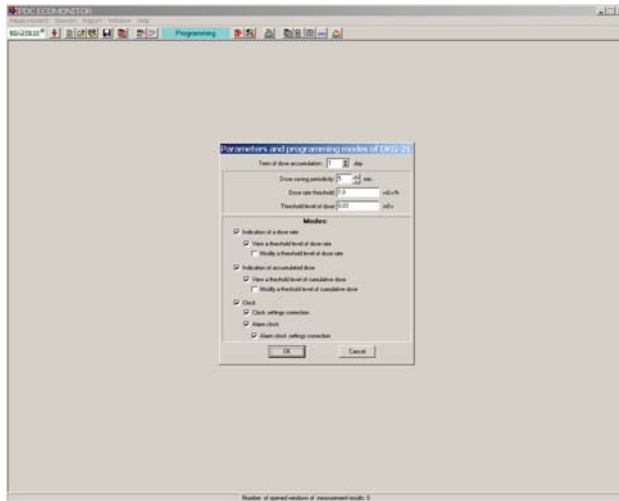
Purpose of Use

- Automated noncontact programming of the operating modes of DKG-21 "EcotestCARD" dosimeter.
- Automated noncontact reading of dosimetric measurement results of DKG-21 "EcotestCARD", MKS-U and MKS-07 "POSHUK" dosimeters.

Application

The program can be used by companies and institutions, as well as by individual users to program DKG-21 "EcotestCARD" dosimeters and also for reading and computer processing of dosimetric measurement results of DKG-21 "EcotestCARD", MKS-U and MKS-07 "POSHUK" dosimeters.

Specifications

"PDC ECOMONITOR" allows to:
- program parameters and operating modes of DKG-21 "EcotestCARD" dosimeters;
- read dosimetric measurement results of DKG-21 "EcotestCARD", MKS-07 "POSHUK", and MKS-U dosimeters;
- save the readout measurement results to files;
- load and process previously saved dosimetric measurement results;
- view and print the dosimetric information as reports;
- save the information as reports or text files for further processing by other word processors;
- export the readout information to Microsoft Excel for further processing in Excel.

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Operating Conditions

The "PDC ECOMONITOR" program operates on the computers running Windows XP Professional or Windows 7 Professional, and connected infrared port adapter (included in the delivery kit).

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