



NEW GENERATION TECHNOLOGIES

TOP PRODUCTS
CATALOGUE

A photograph of a green tarp with a black strap and a handheld electronic device. The device has a screen displaying a graph and several buttons. The background is a gravelly surface with some dry leaves.

Protection from invisible threats

The Scientific and Production Private Enterprise “Sparing-Vist Center” is a well-known developer and manufacturer of radiation measurement instruments of ECOTEST trademark in Ukraine and worldwide.

**Team of highly-qualified
and motivated specialists**

For almost three decades, our team of experienced experts helps people to protect themselves against radiation. We pride ourselves on our specialists and believe that it is due to the productive and coordinated work of our team we managed to achieve such striking results.

**Over 30 radiation
measurement instruments
and systems**

We offer a full line of instruments, including personal, hand-held dosimeters and radiometers as well as fixed systems. The majority of our products have been certified and included in the State Register for Measuring Instruments of Ukraine and other countries of the world.

**Export to more
than 80 countries
worldwide, more than
20 dealers abroad**

ECOTEST TM products are exported to more than 80 countries of the world (CIS, Europe, Asia, Africa, North and Latin America). Today, our company has more than 20 dealers abroad. The dealer network is represented in countries such as the Republic of Korea, the Czech Republic, Bulgaria, the Netherlands, Argentina, Brazil, Greece, Italy, Egypt, Kazakhstan, Germany, Canada, Turkey, Indonesia and Japan.

**International technical
assistance programs**

Our company has experience in participating in international technical assistance programs, including the Second Line of Defense equipment program. Under these programs, since 2002 the ECOTEST TM products have been supplied for the State Border Guard Service of Ukraine, Internal Troops, Ministry of Internal Affairs of Ukraine, State Emergency Service of Ukraine, State Border Service of the Republic of Kazakhstan and State Border Service of the Republic of Uzbekistan. During these programs, the company acquired experience in cooperation with the international departments of the relevant services.

The production of high-quality products, a full cycle of research and development, entrepreneurship and team spirit building are the key to success and long-term leadership of the ECOTEST TM products on the instrument making market.

Fulfilling orders from many ministries and departments

Among customers of the ECOTEST TM products are the Ministry of Defense of Ukraine, the State Service of Ukraine for Emergencies, the Border Guard Service of Ukraine, the Ministry of Environment and Natural Resources of Ukraine, the Security Service of Ukraine, the Ministry of Internal Affairs of Ukraine, the Ministry of Health of Ukraine, the State Security Service, the Border Guard Service of the Republic of Kazakhstan and the Border Guard Service of the Republic of Uzbekistan.

ISO 9001-2008 compliance certificate

Since 2006, the "Sparing-Vist Center" company has been operating under an established and certified quality management system as evidenced by a certificate of compliance with the ISO 9001-2008 standard issued by the International Society BUREAU VERITAS. The quality management system operating at the enterprise is a guarantee of the products' stable quality, including the development and manufacturing of devices, deliveries to a customer as well as warranty (2 years) and post-warranty services.

Continuous improvement and innovation

We improve our products and extend their functional capabilities in accordance with market needs, using the latest technologies, modern components and materials. We develop high-tech and ergonomic design solutions using the latest types of ionization radiation detectors. We use patented information processing equipment and methods coupled with wireless communication technologies.

Ready to take up any challenge

We believe that a long-term partnership is the most effective tool for the integrated solution to many radiation monitoring issues. We are always willing to offer our clients an individual approach and jointly find exactly such a solution that will best suit their needs.

Search Dosimeter- Radiometer

MKS-11GN SPRD SPECTRA

A high-sensitivity and compact device intended to detect and localize radioactive and nuclear materials by their external gamma and neutron radiation, as well as identify radionuclides by an amplitude gamma spectrum. It is used by the border guard service and other law enforcement agencies to prevent illicit transfer of these materials. Also, SPECTRA is used at companies and institutions dealing with gamma and neutron radiation sources.



PURPOSE OF USE

- Searches (detects and localizes) for and identifies radioactive and nuclear materials by their external gamma and neutron radiation.
- Measures dose rate $H^*(10)$ of gamma, X-ray and neutron radiation.
- Measures dose $H^*(10)$ of gamma and X-ray radiation.
- Determines gamma and neutron radiation intensity.
- Identifies a type of radionuclides by their amplitude gamma spectra (2048 channels).
- Saves amplitude gamma spectra and events in the nonvolatile memory.

High-sensitive and compact identifier of a new generation that is successfully used for radiation monitoring of borders of CIS member states according to the international technical assistance programs.

Complies with the international standard ANSI 42.48.

Real-time spectrum identification.

Built-in GPS/GLONASS-receiver.



DESCRIPTION

The device comprises high sensitivity CsI scintillation detectors of gamma and LiI of neutron radiation with solid state (silicon) photomultiplier.

Spectrum identification is carried out in real time. SPECTRA identifies radionuclides with indication of a category that they belong to (in compliance with the IAEA requirements):

- medical radionuclides: ^{18}F , ^{67}Ga , ^{51}Cr , ^{75}Se , ^{89}Sr , ^{99}Mo , $^{99\text{m}}\text{Tc}$, ^{103}Pd , ^{111}In , ^{123}I , ^{125}I , ^{131}I , ^{153}Sm , ^{201}Tl , ^{133}Xe ;
- industrial radionuclides: ^{57}Co , ^{60}Co , ^{133}Ba , ^{137}Cs , ^{192}Ir , ^{152}Eu , ^{22}Na , ^{241}Am , ^{226}Ra , ^{75}Se ;
- special nuclear materials: ^{233}U , ^{235}U , ^{237}Np , Pu [Reactor grade plutonium (more than 6% ^{240}Pu)];
- naturally occurring radioactive materials: ^{40}K , ^{138}La , ^{226}Ra , ^{232}Th -decay series and ^{238}U -decay series.

Note: The list of nuclides may be extended if needed.

A brand new search algorithm provides high sensitivity of the device and its instant actuation at the slightest change of gamma or neutron background level. A new type detector ensures high thermal stability of the device and entirely eliminates the “microphone effect”.

The device is ergonomic and exceptionally user-friendly due to its compact size, large color display and ability to operate continuously for more than 200 hours when turned on. Ingress protection rating is IP67.

When threshold levels are exceeded, sound and vibrating alarms are generated, as well as light color indication of threshold levels exceeding (gamma radiation – red color, neutron – blue) with its duplication on the device' front panel and end face.

The integrated GPS/GLONASS receiver and the new software make it possible to display the received radiation monitoring information on an electronic map.

The dosimeter can be connected to the PC via the USB port. The device stores and can transfer 250 complete gamma radiation spectra. It is powered from the built-in lithium polymer storage batteries that can be charged via the USB-cable.

BRANCHES OF USE



CUSTOMS AND BORDER SERVICES



SANITARY DOSIMETRY AND ECOLOGY



EMERGENCY SERVICES AND CIVIL DEFENSE



INDUSTRY



LAW ENFORCEMENT AGENCIES



RADIOACTIVE WASTE STORAGE SITES



Search Alarm Dosimeter

DKS-02 PN PRD

CADMIUM

A high-sensitivity device intended to detect and localize radioactive sources of gamma and neutron radiation. It is used by the border guard service and other law enforcement agencies to prevent illicit transfer of radioactive materials.



DESCRIPTION

The device comprises high sensitivity CsI scintillation detectors of gamma and LiI of neutron radiation with solid state (silicon) photomultiplier.

CADMIUM has the ingress protection rating IP67 and modern ergonomic design. It is equipped with a large color display with high resolution. The device has no “microphone effect” and ensures high thermal stability.

When threshold levels are exceeded, audible and vibrating alarms are generated, as well as light color indication of threshold levels exceeding (gamma radiation – red color, neutron – blue) with its duplication on the device' front panel and end face.

The integrated GPS/GLONASS receiver and the new software make it possible to display the received radiation monitoring information on the electronic map.

The dosimeter can be connected to the PC via the USB port. It is powered from the built-in lithium polymer storage batteries that can be charged via the USB cable. Time of continuous operation is more than 200 hours.

PURPOSE OF USE

- Searches (detects and localizes) for radioactive and nuclear materials by their external gamma and neutron radiation.
- Measures dose rate $H^*(10)$ of gamma, X-ray and neutron radiation.
- Measures dose $H^*(10)$ of gamma and X-ray radiation.
- Determines gamma, X-ray and neutron radiation intensity.

BRANCHES OF USE



CUSTOMS AND BORDER SERVICES



INDUSTRY



LAW ENFORCEMENT AGENCIES



RADIOACTIVE WASTE STORAGE SITES

High-sensitive search device of a new generation that is successfully used for radiation monitoring of borders of CIS member states according to the international technical assistance programs.

Complies with the international standards ANSI 42.32 and ANSI 42.33.

Built-in GPS/GLONASS receiver.



Multipurpose Dosimeter-Radiometer

MKS-UM



MKS-UM is a full-range radiation survey device in field conditions. It is designed on the basis of MKS-U, which gained an excellent reputation under severe desert conditions during peacekeeping mission in the Middle East. It is suitable for use by military forces, particularly NATO forces.

MKS-UM measures alpha, beta, gamma and X-ray radiation.

The high protection rating IP67 allows the device to be used under harsh climatic conditions, and a rubber protective case can safeguard it from mechanical damage.

New generation meter for replacement of SVG2 designed for use by NATO forces. In operational service with the Ukrainian Army and Law Enforcement Agencies of other countries.

Complies with the international military standards MIL-STD-810G and MIL-STD-461F as well as international standards IEC 60846 and IEC 60325.

Measures alpha, beta, gamma and X-ray radiation and has Integrated dual-system GPS/GLONASS receiver.



DESCRIPTION

The device measures dose rate of gamma radiation from background to emergency levels. It uses lithium-ion memory-effect-free battery. The display indicates a statistical error of measurements. Availability of the analog indicator and audio alarm of radiation intensity facilitates localization of radiation sources. It provides ease of use due to its small size and weight.

Its integrated dual-system GPS/GLONASS receiver enables MKS-UM to archive georeferenced measurement results.

The device has a nonvolatile memory of up to 4096 measurement results. The recorded results can be viewed on the display or transferred to the computer via the infrared port.

The device ensures a multilevel indication of battery discharge.

Storage battery of the device is charged with the help of the built-in charger from an integral solar battery, from an automobile battery or from an industrial network.

MKS-UM operates under the conditions of atmospheric precipitations, dusty conditions and in a wide temperature range. Back-lit display and controls allow the device to be used in dark areas.

PURPOSE OF USE

- Measures dose rate $H^*(10)$ of gamma and X-ray radiation.
- Measures dose $H^*(10)$ of gamma and X-ray radiation.
- Measures accumulation time of dose $H^*(10)$ of gamma and X-ray radiation.
- Measures beta-particles surface flux density and beta-particles surface activity.
- Measures alpha-particles surface flux density and alpha-particles surface activity.
- Archives measurement results referring to the location coordinates.

BRANCHES OF USE



LAW ENFORCEMENT AGENCIES



**EMERGENCY SERVICES AND
CIVIL DEFENSE**



NUCLEAR POWER INDUSTRY



**RADIOACTIVE WASTE
STORAGE SITES**



**RADIOLOGICAL
LABORATORIES**



Personal Gamma Radiation Dosimeter **EPD DKG-21M**

The personal dosimeter in a damp and dustproof body with a high ingress protection rating is designed for use by the Army, the subdivisions of the State Emergency Service and the Civil Defense as well as by emergency services of Nuclear Power Plants under conditions of significant temperature variations and dustiness of atmosphere.



DESCRIPTION

As an electronic direct reading dosimeter it can be used both within an automated system of personal monitoring and independently.

The dosimeter allows storing dose accumulation history with real time reference in the nonvolatile memory, and transferring it to the computer via the infrared port. Upon that the mode of dosimeter's power supply switching off is blocked until the procedure of reading the information accumulated in the dosimeter is finished. The special software makes it possible to keep a database of personnel radiation burden with the ability to represent reporting information in graphical and tabular form, as well as export it to various formats.

The values of threshold levels can be set for dose and dose rate. If the preset threshold levels are exceeded, light and audio alarms are actuated.

The device uses an energy-compensated Geiger-Muller counter. It is powered from the lithium battery whose continuous work time is above 3 months.

PURPOSE OF USE

- Measures dose rate $H_p(10)$ of gamma and X-ray radiation.
- Measures dose $H_p(10)$ of gamma and X-ray radiation.

BRANCHES OF USE



LAW
ENFORCEMENT
AGENCIES



EMERGENCY
SERVICES AND
CIVIL DEFENSE



NUCLEAR
POWER
INDUSTRY

In operational service with the Ukrainian Army and Law Enforcement Agencies of other countries.

Complies with the international standard IEC 61526.

High ingress protection rating IP54.

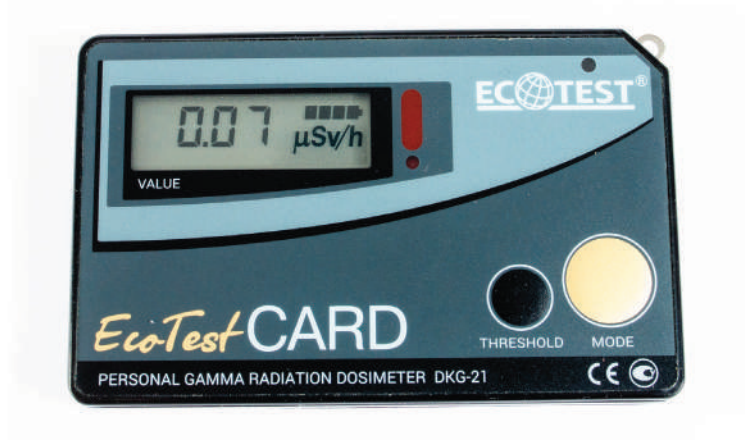
Meets the requirements of EU marking.



Personal Gamma Radiation Dosimeter

EPD DKG-21

EcotestCARD



As a direct reading personal dosimeter for personnel exposure monitoring it can be used either independently or within the automated system of personal monitoring.

DESCRIPTION

The dosimeter allows storing dose accumulation history with real time reference in the nonvolatile memory, and communicating it to the computer via the infrared port. Upon that the mode of dosimeter's power supply switching off is blocked until the procedure of reading the information accumulated in the dosimeter is finished. The special software makes it possible to keep a database of personnel radiation burden with the ability to represent reporting information in graphical and tabular form, as well as export it to various formats.

In 2011, the Ministry of Emergency Situations of Ukraine granted EcotestCARD dosimeters to Japan as humanitarian aid for recovery from the accident at the Fukushima NPP, where they gained a reputation of reliable and precise products.

Meets the requirements of IEC 61526 standard.

Conforms to the CE standards.

Its integral rechargeable battery can be powered from 220 V.



It is possible to set values of threshold levels for dose and dose rate. If the preset threshold levels are exceeded, light and audio alarms are actuated.

The device uses an energy-compensated Geiger-Muller counter. It is powered from the lithium-ion storage battery that can be further charged from 220 V through a USB port.

PURPOSE OF USE

- Measures dose rate $H_p(10)$ of gamma and X-ray radiation.
- Measures dose $H_p(10)$ of gamma and X-ray radiation.

BRANCHES OF USE



**NUCLEAR POWER
INDUSTRY**



MEDICINE



**RADIOLOGICAL
LABORATORIES**



**EMERGENCY
SERVICES AND
CIVIL DEFENSE**



**SANITARY
DOSIMETRY AND
ECOLOGY**



**RADIOACTIVE
WASTE STORAGE
SITES**



INDUSTRY



Data Panel

IT-09T

with Gamma Radiation
Detecting Unit

BDBG-09



IT-09T data panel together with BDBG-09 gamma radiation detection units offers an integrated solution for continuous monitoring of the radiation environment and for prevention of radiation hazardous emergencies.

DESCRIPTION

It displays information about dose rate $H^*(10)$ of gamma radiation, real time and ambient temperature. Data is transmitted from the BDBG-09 gamma radiation detecting unit, which can be used outdoors at a distance of up to 1200 m from the data panel.

IT-09T data panel together with BDBG-09 gamma radiation detecting units can continuously provide data transfer to a personal computer. The special software allows for the creation of an automated system for 24-h continuous monitoring of radiation background of all objects, where data panels are located.

It is possible to program the threshold levels of gamma radiation dose rate that when exceeded are followed by audible (with different soundings for each threshold level), and visual (color change from green to red of measurement result display) alarms.

Dimensions of IT-09T – 748 x 135 x 40 mm. For 24-hour continuous monitoring of radiation background, our company also offers a smaller-sized data panel. It performs the functions of IT-09T except for ambient temperature and real time display.

The standard version of the BDBG-09 detecting unit is designed with built-in Geiger-Muller counters. There is also a scintillation detector based modification of the detecting unit. At the customer's request, the housing of BDBG-09 can be made of duralumin or stainless steel. For use in water bodies and artificial reservoirs a special version of the detecting unit with a water-resistant housing has been developed.

IT-09T data panel and BDBG-09 detecting unit have been successfully used for many years at nuclear power plants in Ukraine, Canada, Bulgaria, Korea, and France. They are actively used by the subdivisions of the Ministry of Emergency Situations and Civil Defense, as well as law enforcement agencies. IT-09T is in operational service with the Ukrainian Army, and is included in the equipment list of the Ukrainian MES units.

PURPOSE OF USE

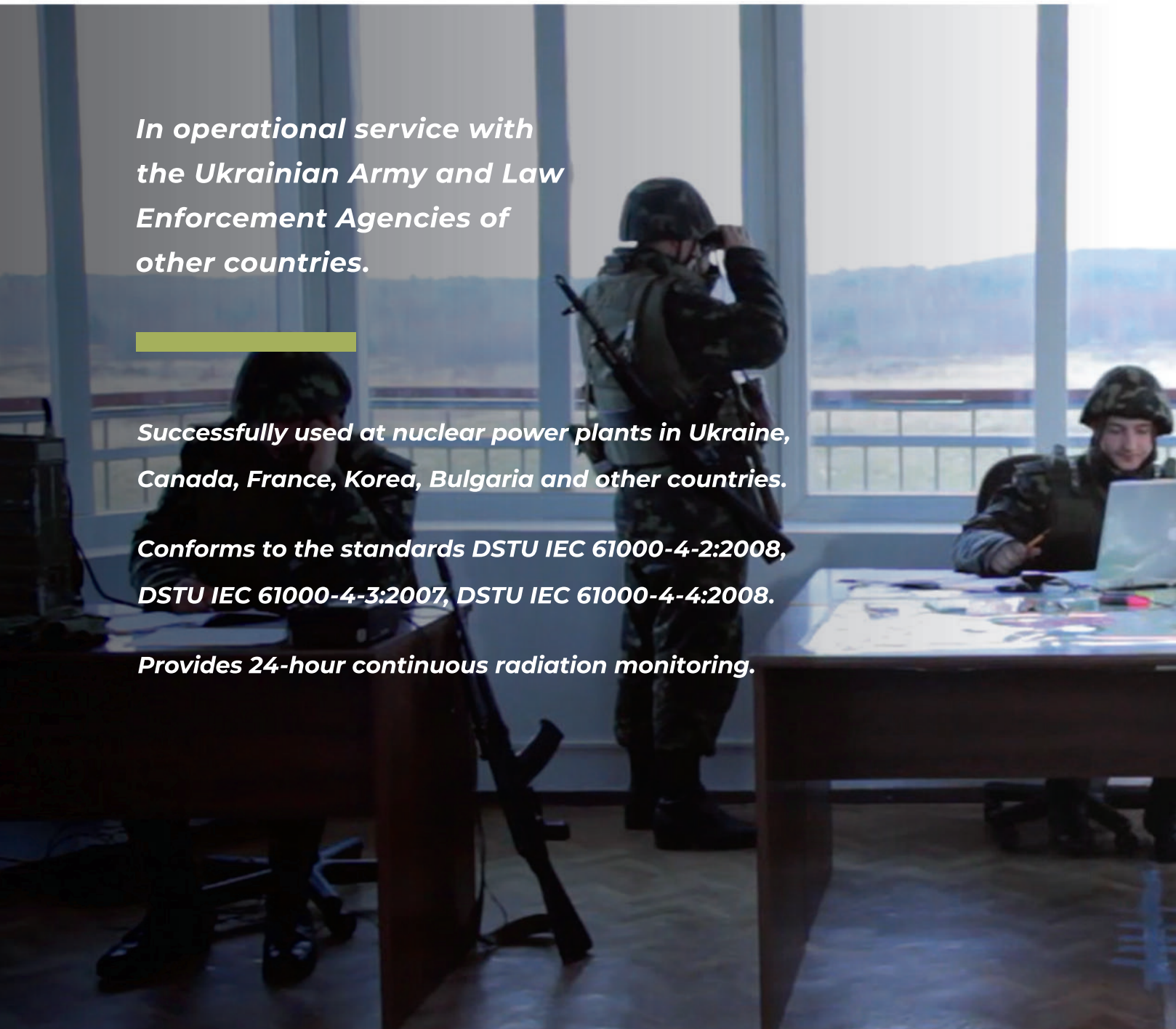
- Measures $H^*(10)$ gamma radiation dose rate and displays results on the data panel.
- Audible and visual alarms when threshold levels of $H^*(10)$ gamma radiation dose rate exceeded.
- Displays ambient temperature (in degrees Celsius).
- Real time display (clock).

In operational service with the Ukrainian Army and Law Enforcement Agencies of other countries.

Successfully used at nuclear power plants in Ukraine, Canada, France, Korea, Bulgaria and other countries.

Conforms to the standards DSTU IEC 61000-4-2:2008, DSTU IEC 61000-4-3:2007, DSTU IEC 61000-4-4:2008.

Provides 24-hour continuous radiation monitoring.



BRANCHES OF USE



LAW ENFORCEMENT
AGENCIES



RADIOACTIVE WASTE
STORAGE SITES



NUCLEAR POWER
INDUSTRY



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EMERGENCY SERVICES
AND CIVIL DEFENSE



INDUSTRY



Onboard Radiation Survey Device **DRG-T**

The board radiation survey device that provides continuous monitoring of external gamma radiation, and generates signals and commands for switching on crew life support systems as threshold level is exceeded on gamma background, and when nuclear explosion is registered.



DESCRIPTION

The device is designed for installation in special-purpose vehicles, in particular in radiochemical reconnaissance units of civil defense, and armed forces. It is used for continuous monitoring of gamma radiation dose rate, being able to display information on information displays installed in a vehicle or transfer data to the onboard computer. The device is endowed with high shock and vibration resistance.

Self-testing function of the device performance is ensured, which allows commands to be issued to the actuators of crew life support systems. DRG-T provides audio and light alarms of dangerous levels of gamma radiation, and generates commands to start the actuators of protection equipment.

The device is powered from the onboard vehicle network.

PURPOSE OF USE

- Measures exposure dose rate of gamma and X-ray radiation.
- Generates audio/visual alarms and issues commands to start the actuators of crew protection equipment.

BRANCHES OF USE



LAW ENFORCEMENT
AGENCIES

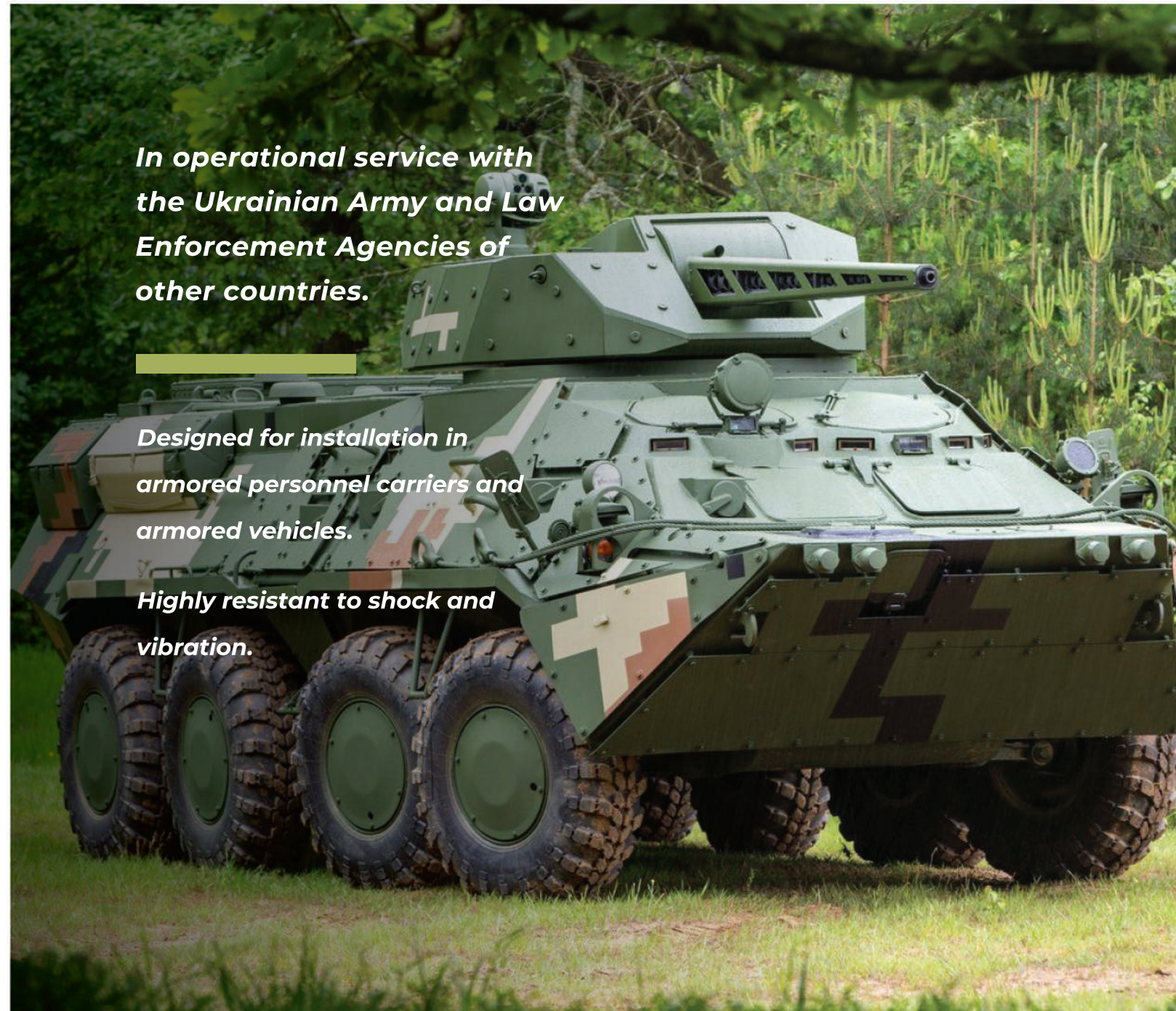


EMERGENCY SERVICES AND
CIVIL DEFENSE

*In operational service with
the Ukrainian Army and Law
Enforcement Agencies of
other countries.*

*Designed for installation in
armored personnel carriers and
armored vehicles.*

*Highly resistant to shock and
vibration.*



Multipurpose Environment Activity Radiometer

RKG-14 VIRTUOSO



It is a compact-size device for comprehensive radiological examination of food, agricultural products, construction materials, soil, etc. Also, it can be used in logging and woodworking industries for wood control.

PURPOSE OF USE

- Detects ^{137}Cs and ^{134}Cs cesium radioisotopes (hereinafter – radiocesium) in food and objects of the environment.
- Evaluates the detected radiocesium content in the quantities of specific, volume and surface activity.
- Controls the level of background radiation in the environment, including assessment of radiocesium radiation level as the value of dose rate $H^*(10)$ purely from radiocesium as the part of natural background.
- Measures specific and volume activities of naturally occurring radioactive materials ^{40}K , ^{226}Ra , ^{232}Th in the objects of the environment.
- Track recording with measuring points referenced to geographical coordinates (gamma tracking).

Innovative isotope activity radiometer that requires no sampling. Measurement is done by putting the device to the tested object (material, product, soil, etc.), or by holding it over the studied surfaces.

Works with Android-based smartphones and tablets via Bluetooth.

Product under test and its packaging remain undamaged.

Requires no special training of the user, operates in the interactive mode.



DESCRIPTION

The device is designed to detect cesium radioisotopes and naturally occurring radionuclides (potassium, radium, thorium), as well as to assess their specific, volume and surface activity.

Thanks to the use of the brand new technology, you can now control cesium radioisotopes and naturally occurring radioactive materials not only in specialized laboratories, but at home without help of professional radiologists!

VIRTUOSO works with the Android-based smartphones and tablets. Data communication is done via Bluetooth. The device is portable and practical without the need of special users training and operates in the interactive mode. Measurements can be performed in geometries “ 2π ”, “ 4π ”.

With VIRTUOSO you can easily check radiation purity of: soil, construction materials, mineral raw materials, wood, housing, vehicles and such food as: baby food, water, milk, meat, fish, fresh vegetables, fruit, grain, cereals, dried foods, dried herbs (tea).

BRANCHES OF USE



INDUSTRY



HOUSEHOLD USE



**SANITARY DOSIMETRY
AND ECOLOGY**



**NUCLEAR POWER
INDUSTRY**

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