



Branches of Use

- Emergency Services and Civil Defense
- Nuclear power industry
- Mining industry
- Environmental inspectorates
- Radioactive waste storage sites

Purpose of Use

- Measurement of ambient dose equivalent rate (DER) of gamma radiation.
- Display of measurement results on a PC screen.

Features

- Remote continuous computer-aided radiation monitoring of the environment.
- Acceptance and display of measurement results of ambient dose equivalent rate (DER) from BDBG type detecting units, located at considerable distances from the server.
- Acceptance and display of measurement results of ambient dose equivalent rate (DER) from BDBG type detecting units to the fixed or portable server (via GSM modem).
- Real-time visualization of measurement results in numeric and graphic form.
- Setting of a separate threshold level for each detecting unit.
- Generation of emergency and warning notifications when DER measurement results of the specified threshold levels are exceeded.
- Storage of DER measurement results on a PC hard drive.
- Possibility to expand functionality through integration of devices, equipped with RS-485 interface (e.g., weather stations or other types of detectors).
- For assessment of radiation situation directly at the installation site of the monitoring point, it is possible to connect IT-09 (T) data panel or to display the information on the PC screen with the help of "RadMonitor" software.
- Possibility to equip the system with reserve power supply to maintain its working efficiency in case of electric power supply shortages.
- Generation of printable reports.

Specifications

Name	Unit of measurement	Standardized values according to the technical specifications
Number of gamma radiation DER measurement channels per one processing unit	pcs	1 - 4
Method of data transfer from the monitoring points to the server	Batch communication via GPRS channel	
Instrument for gamma radiation DER measurement	BDBG-09 detecting unit of gamma radiation	
Measurement range of gamma radiation DER	μSv/h	0.1 ... 10 ⁷ (0.1 ... 10 ⁸ on demand)
Main relative permissible error limit of gamma radiation DER measurement when calibrated to ¹³⁷ Cs with confidence probability of 0.95	%	±(15+1/Ĥ*(10)), where Ĥ*(10) is a numeric value of measured DER equivalent to μSv/h
Energy range of registered gamma radiation	MeV	0.05 ... 3.00
Energy dependence of measurement results during gamma radiation DER measurement in the energy range from 0.05 MeV to 1.25 MeV	%	±25
Operating supply voltage range	VAC	220
Dimensions of the processing unit	Depending on the system's functionality and protection (IP) requirements. Minimal approximate dimensions are 300 × 120 × 200 mm	
Dimensions of the detecting unit without fastening elements	mm	170 × 60 × 60

Operating conditions

Operates on the IBM compatible computers running Windows 7 Professional

Delivery Kit

- BDBG type detecting units of gamma radiation (1 – 4 pcs. per one processing unit);
- Processing units of dosimetric information with GPRS antenna according to customer's requirements;
- "EcotestMonitor" software for server.