



TY Y 22362867.003-99

*Number U1207-07
in State Register for Measuring
Instruments*

*Hygienic conclusion of the State
Sanitary-Hygienic Expertise
B-7.02/28 of November 04, 1999*

Branches of Use

- Customs and Border Service
- Ministry of Internal Affairs
- Nuclear power industry
- Metallurgy and scrap metal storage
- Mining industry
- Vehicles monitoring, seaports and airports
- Construction industry
- Logging and woodworking industry
- Sanitary dosimetry and ecology (environmental inspectorates, sanitary and epidemiological services, radiologic laboratories, labor protection)
- Medicine

Purpose of Use

- Measurement of gamma and X-ray radiation ambient dose equivalent rate.
- Measurement of gamma and X-ray radiation ambient dose equivalent.
- Measurement of surface beta-particles flux density.
- Measurement of surface alpha-particles flux density with the help of the BDPA-07 detecting unit of alpha radiation (on demand).
- Measurement of thermal and fast neutron flux density with the help of the BDPN-07 detecting unit of neutron radiation (on demand).

Specifications

Measurement ranges and main relative errors:

- Gamma and X-ray radiation dose equivalent rate (^{137}Cs)	0.1 $\mu\text{Sv/h}$... 2.0 Sv/h ; $\pm 15\%$
- Gamma and X-ray radiation dose equivalent (^{137}Cs)	1.0 μSv ... 9 999 mSv ; $\pm 15\%$
- Beta-particles flux density ($^{90}\text{Sr}+^{90}\text{Y}$)	1/($\text{cm}^2 \cdot \text{min}$) 5 ... 100 000 ; $\pm 15\%$

Specifications (continued)**Energy ranges of measurement and energy dependence:**

- Gamma and X-ray radiation	MeV	0.05 ... 3.0 ; $\pm 25\%$
- Beta radiation	MeV	0.15 ... 3.0
Measurement time intervals	seconds	2 ... 5
Storage battery life (four nickel-cadmium AA size batteries)	hours	not less than 400
Operating temperature range	°C	-25 ... +55
Weight and dimensions:		
Control panel	Weight (kg)	Dimensions (mm)
	0.5	154x86x35
Gamma radiation detecting unit	0.6	214x80x36
Beta radiation detecting unit	0.5	154x82x43
Delivery kit in packing	4.2	445x255x85

Features

- Geiger-Muller counters without return run of counting response.
- Analog indicator of radiation intensity.
- Up to 4096 measurement results recording in the nonvolatile memory with further transfer to the computer through infrared port.
- Review of the recorded measurement results on the display.
- "Precisely" channel with the average result indicated on the display for the fixed measurement time from 1 to 99 minutes, and "start-stop" measurement mode.
- Detection of soft beta radiation.
- Programmable threshold levels of gamma radiation dose equivalent rate and beta-particles flux density.
- Audio signaling of detected gamma-quanta, beta-particles, and exceeded programmed threshold levels of dose equivalent rate or beta-particles flux density.
- Display backlight.
- Multilevel indication of battery discharge.

Delivery Kit

- control panel;
- gamma radiation detecting unit;
- beta radiation detecting unit;
- telescopic tube;
- connecting cable;
- technical description and operating manual;
- logbook;
- battery charger;
- packing bag of close and waterproof cloth used to carry the device on one's shoulder;
- exchange infrared port adapter and software (at the customer's request).

