

INTELLIGENT GAMMA RADIATION DETECTION UNIT AT2343

Provides radiation monitoring of territories and industrial units as a part of automated system



Features

- Detection of upper limit exceeding of absorbed dose rate measuring range
- Measuring results keeping in the memory
- Serviceability self-testing and its result output on the display
- Real time watch
- Data transfer and control command receiving by interface RS 485
- Serviceable after short-term (not longer than 5 min) gamma radiation influence of dose rate of 20 Gy/h
- Dust- and water proof design
- Industrial radio-interference level meets GOST 23511-79 requirements

Application

- Environmental radiation monitoring
- Enterprises of radioactive waste treatment, storage and burial
- Nuclear power plants
- Radiation sensitive enterprises and companies

Six GM tubes of big volume provide high accuracy of low gamma radiation dose rate measuring for a short period of time. Built-in microprocessor system provides data transfer of measurement results and detection unit state on a request from an external device by RS 485. It is possible to switch GM tubes over to small volume and measure high radiation level.

Specification

Detectors - Geiger-Muller tubes	6 pc.
Absorbed gamma radiation measuring range in air	$2.5 \cdot 10^{-8}$ - 10 Gy/h
Relative intrinsic measurement error of absorbed dose rate	not more than ± 15 %
Detected gamma radiation energy range	50 keV - 1.5 MeV
Energy response respect to ^{137}Cs	not more than ± 30 %

Sensitivity	90000 cnt/ μ Gy
Response time to dose rate change if dose rate is not less than 0.01 mGy/h and variation coefficient is $\pm 15\%$	not more than 10 s
Interface	RS 485
Reading instability for 24 h	not more than 5 %
Operatrion mode setup time	not more than 2 min
Power	from 8 to 25 V
Consumed power at background measuring	not more than 1 VA
Opearating temperature range	-35 - +50°C
Relative humidity at the temperature of 40°C or less without moisture condensation	up to 100 %
Atmospheric pressure	from 84 to 106.7 kPa
Sine vibrations in frequency range with bias amplitude	5 - 35 Hz 0.35 mm
Average mean-time-between-failures	not less than 20000 h
Average service life	not less than 6 years
Average life time	not less than 1000 h
Dimensions diameter	127 mm
height	503 mm
Weight	not more than 2.7 kg

AT2343 meets IP67 GOST 14254-96 according to environmental influence protection. It is possible to perform decontamination because of its design, materials and surfaces.