

PURPOSE

BDZA-96 is designed to be used as a part of dosimeter-radiometer MKS-08 (with measurement console UIK-05, UIK-05-01 or UIK-06).

It is intended for measurement of contamination level of alpha particles flux density with radionuclides ^{239}Pu .



FEATURES

- wide measurement range of alpha particles flux density;
- high sensitivity and wide energy range;
- operation in harsh weather conditions.

SPECIFICATIONS

Type of registered radiation	flux density of α -radiation
Energy range of registered alpha particles	from 4 to 7 MeV
Measurement range of alpha particles flux density	$0,1 - 1 \cdot 10^4 \text{ min}^{-1} \cdot \text{cm}^{-2}$
Limits of tolerable intrinsic relative error	$\pm (15 + 5/Ax)$, %
Typical sensitivity, $\text{s}^{-1} \cdot \text{min} \cdot \text{cm}^2$, no less	$0,40 \text{ s}^{-1} \cdot \text{min} \cdot \text{cm}^2$
Registration efficiency of alpha-radiation ^{239}Pu , no less	45 %
Type of detector	scintillation ZnS(Ag)
Active area of detector, cm^2	70 cm^2
Own background, no more than	$0,3 \text{ min}^{-1} \cdot \text{cm}^{-2}$
Continuous operation time, no less	$\geq 24 \text{ h}$
Overall dimensions, mm	$\text{Ø}130 \times 240$
Weight, kg	1,0
<i>Note: where Ax – numerical value measured value</i>	

ENVIRONMENT

- operating temperature range: from minus $20 \text{ }^\circ\text{C}$ to $+50 \text{ }^\circ\text{C}$;
- relative humidity up to 95% at $+35 \text{ }^\circ\text{C}$;
- atmospheric pressure from 84 to $106,7 \text{ kPa}$;
- protection class – IP 67;
- housing easy to decontaminate

RELIABILITY AND GUARANTEES

- working resource before the complete overhaul is 10000 hours for 10 years of operation;
- overhaul period is 5000 hours upon condition of average amount of repairs for the service period;
- warranty period of operation is 18 months from the moment of putting into operation or if the guarantee period of storage is expired.
- guarantee period of storage is 6 months from the sale date.