

## PURPOSE

BDZA-96t 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  $^{239}\text{Pu}$  in hard-to-reach places, pipes, containers.



## 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 $\alpha$ -radiation
Energy range of registered alpha particles	from 4 to 7 MeV
Measurement range of alpha particles flux density	$0,3 - 1 \cdot 10^6 \text{ min}^{-1} \cdot \text{cm}^{-2}$
Limits of tolerable intrinsic relative error	$\pm (15 + 5/Ax)$ , %
Typical sensitivity, $\text{s}^{-1} \cdot \text{min} \cdot \text{cm}^2$ , no less	$0,18 \text{ s}^{-1} \cdot \text{min} \cdot \text{cm}^2$
Registration efficiency of alpha-radiation $^{239}\text{Pu}$ , no less	45 %
Type of detector	semiconductor
Active area of detector, $\text{cm}^2$	$5 \text{ cm}^2$
Continuous operation time, no less	$\geq 24 \text{ h}$
Overall dimensions, mm	$\text{Ø}50 \times 60$
Weight, kg	0,2
<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 54;
- 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.