

PURPOSE

BDZB-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 beta particles flux density with radionuclides $^{90}\text{Sr}+^{90}\text{Y}$.



FEATURES

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

SPECIFICATIONS

Type of registered radiation	flux density of β -radiation
Energy range of registered beta particles	from 0,12 to 3,5 MeV
Measurement range of beta particles flux density	from 1 to $1 \cdot 10^5 \text{ min}^{-1} \cdot \text{cm}^{-2}$
Limits of tolerable intrinsic relative error	$\pm (15 + 20/Ax)$, %
Typical sensitivity, $\text{s}^{-1} \cdot \text{min} \cdot \text{cm}^2$, no less	$0,15 \text{ s}^{-1} \cdot \text{min} \cdot \text{cm}^2$
Registration efficiency of beta-radiation $^{90}\text{Sr}+^{90}\text{Y}$, no less	45 %
Own background during measurement:	
• alpha-radiation, $\text{min}^{-1} \cdot \text{cm}^{-2}$, no more than	0,1
• beta-radiation, $\text{min}^{-1} \cdot \text{cm}^{-2}$, no more than	20
Type of detector	scintillation plastic detector
Active area of detector, cm^2	28 cm^2
Continuous operation time, no less	$\geq 24 \text{ h}$
Overall dimensions, mm	$\text{Ø}90 \times 230$
Weight, kg	0,9
<i>Note: where Ax – numerical value measured value</i>	

ENVIRONMENT

- operating temperature range: from minus 20 °C to +50°C;
- relative humidity up to 95% at +35°C;
- atmospheric pressure from 84 to 106,7 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.