

PURPOSE

BDPS-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 allowed to make selective radiometric control of surfaces contaminated with both alpha and beta emitting substances, search and localization of sources of alpha and beta radiation.



FEATURES

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

SPECIFICATIONS

Type of registered radiation	flux density of α - and β -radiation
Energy range of registered alpha particles	from 4,0 to 7,0 MeV
Energy range of registered beta particles	from 0,12 to 3,5 MeV
Measurement range of alpha particles flux density , $\text{min}^{-1}\cdot\text{cm}^{-2}$	0,1 - $3\cdot 10^4$
Measurement range of beta particles flux density , $\text{min}^{-1}\cdot\text{cm}^{-2}$	1 - $1\cdot 10^5$
Limits of tolerable intrinsic relative error, %:	
- α -radiation	$\pm (15 + 5/Ax)$
- β -radiation	$\pm (15 + 20/Ax)$
Typical sensitivity, $\text{s}^{-1}\cdot\text{min}\cdot\text{cm}^2$, no less%:	
- α -radiation	0,10
- β -radiation	0,10
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 ZnS(Ag)
Active area of detector, cm^2	28 cm^2
Continuous operation time, no less	≥ 24 h
Overall dimensions, mm	$\varnothing 90 \times 280$
Weight, kg	1,2
<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