

PURPOSE

BDKS-96s 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 dosimetric and radiometric monitoring of the radiation situation in conditions of an increased level of gamma background.



FEATURES

- wide measurement range;
- high sensitivity and wide energy range;
- operation in harsh weather conditions.

SPECIFICATIONS

Type of registered radiation	ADER γ , ADE γ , FD β
Energy range of registered gamma particles	50 keV - 3 MeV
Energy range of registered beta particles	0,12 - 3,5 MeV
Measurement range of ambient dose equivalent rate H*(10)	0,1 μ Sv/h - 1 mSv/h
Measurement range of ambient dose equivalent H*(10)	0,1 μ Sv - 10 Sv
Limits of tolerable intrinsic relative error, % <ul style="list-style-type: none"> • ADER γ, ADE γ, • flux density β 	$\pm (15 + 2/Ax)$ $\pm (15 + 20/Ax)$
Typical sensitivity, $s^{-1} \cdot \text{min} \cdot \text{cm}^2$, no less%: <ul style="list-style-type: none"> - α-radiation - β-radiation 	0,10 0,10
Energy dependence (gamma-channel)	$\pm 25 \%$
Typical sensitivity, no less: <ul style="list-style-type: none"> • gamma-channel • beta-channel 	$4,0 s^{-1} \cdot \mu\text{Sv}^{-1} \cdot \text{h}$ $0,10 s^{-1} \cdot \text{min} \cdot \text{cm}^2$
Own background during measurement: <ul style="list-style-type: none"> • beta-radiation, $\text{min}^{-1} \cdot \text{cm}^{-2}$, no more than 	1
Type of detector	Counter type Beta-2 Counter type Beta-2m
Active area of detector, cm^2	15 cm^2
Continuous operation time, no less	≥ 24 h
Overall dimensions, mm	$\varnothing 80 \times 80$
Weight, kg	0,4
<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