

PURPOSE

BDMN-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 measure the ambient dose equivalent rate $\dot{H}^*(10)$ of neutron radiation, the ambient dose equivalent $H^*(10)$ of neutron radiation, as well as to measure the neutron flux density.



FEATURES

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

SPECIFICATIONS

Type of registered radiation	ADER, ADE, FD n
Energy range of registered neutron-radiation	from 0,025 eV to 14 MeV
Measurement range of ambient dose equivalent rate $H^*(10)$ of neutron-radiation	0,1 μ Sv/h -0,1 Sv/h
Measurement range of ambient dose equivalent $H^*(10)$ of neutron-radiation	0,1 μ Sv -10 Sv
Measurement range of flux density of neutron-radiation	0,1-1·10 ⁵ s ⁻¹ ·cm ⁻²
Limits of tolerable intrinsic relative error, %	± (15 + 2/Ax)
Energy dependence	± 40 %
Typical sensitivity, no less:	1,00 s ⁻¹ · μ Sv ⁻¹ ·h
Own background	0,03 μ Sv/h (s ⁻¹ ·cm ⁻²)
Type of detector	thermal neutron detector (in polyethylene moderator, ball Ø 240 mm)
Active area of detector, mm ²	Ø 30 × 5
Continuous operation time, no less	≥24 h
Overall dimensions, mm	240 × 310 × 290
Weight, kg	8,3
<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 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