



SPC DOZA

UIM-MD

RADIATION
AREA / CONTAMINATION
MONITORING SYSTEM





UIM-MD

Local area radiation / contamination monitoring system

Permanently installed, online, easy-to-operate two-channel multipurpose system to monitor different types of radiation parameters.

Depending on the connected detectors the system is able to measure:

- Ambient doze equivalent rate of gamma (photon) radiation
- Ambient doze equivalent rate of neutron radiation
- Absorbed doze rate of photon radiation
- Flux density of alpha radiation
- Flux density of beta radiation
- Surface activity of radionuclides: Pu^{239} , Sr^{90} + Y^{90}

Comply with IEC 61098 Standard



UIM-3D

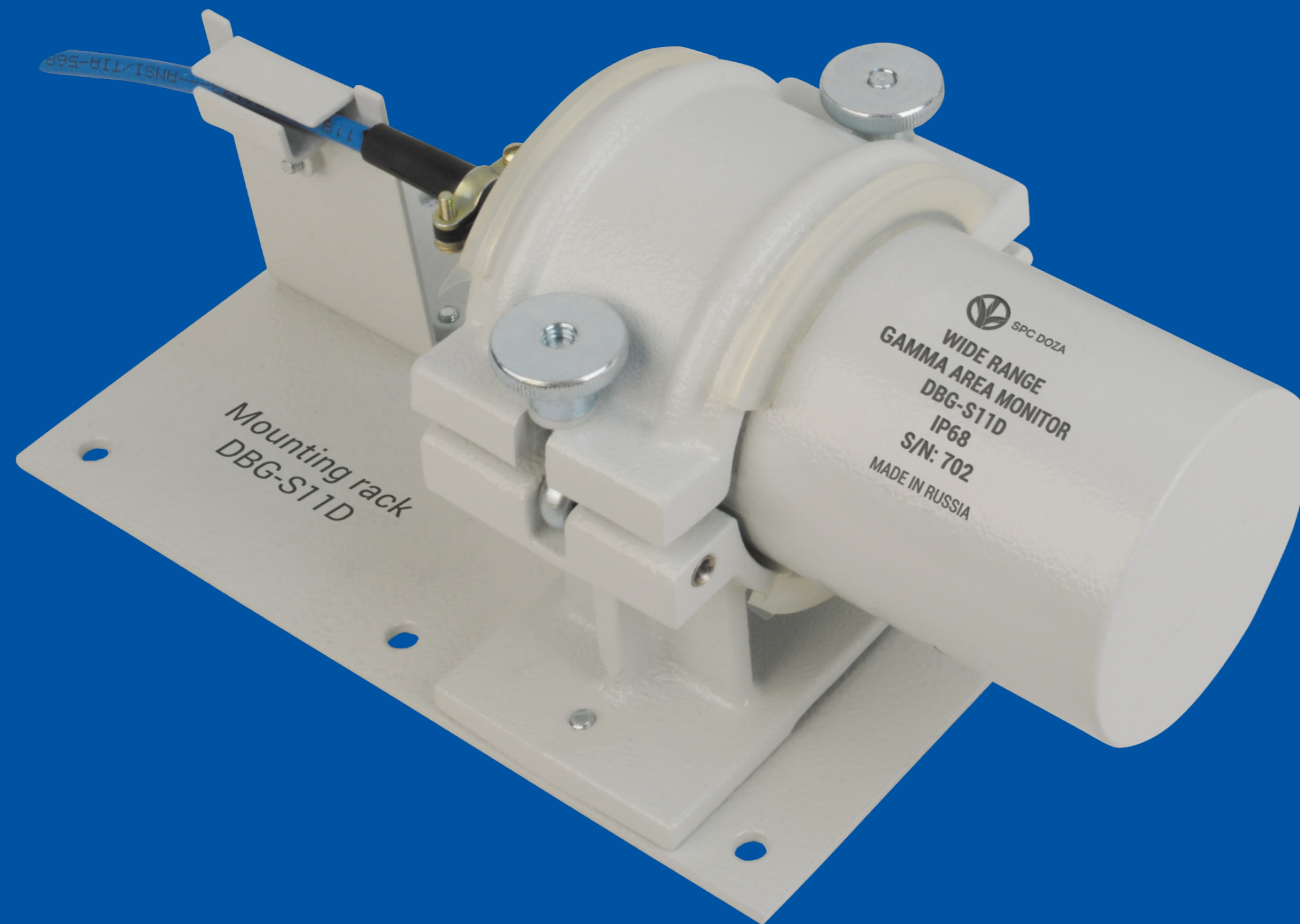
Local data processing and display unit

- One or two measuring channels per unit. A choice of 9 detectors to be connected.
- Color TFT screen to display the current measurement values and detectors' condition information.
- Configurable alarm threshold levels for each measuring channel.
- Light and sound alarm is case of alarm threshold exceeding.
- Up to 50 m cable length to detector unit.
- Dry contact relay output to external alarm or executive device.
- Wall or table-top mounting.
- Connection to PC for parameters configuration and archive reading.



Technical characteristics

- Power input: 220 V, 50 Hz; Power output: 12 V DC (to the connected detectors)
- Operating temperature range: $-20^{\circ}\text{C} \div +50^{\circ}\text{C}$
- Overall dimensions: 223×174×166 mm, weight: 3.9 kg
- IP65 wall-mount enclosure



DBG-S11D

Wide range gamma area monitor

Continuous measurement of ambient dose equivalent rate $H^*(10)$ for gamma radiation. Transfer of the measured values and self-check information to UIM-3D local display unit.

Measuring range:

- Basic version: $0.1 \mu\text{Sv/h} \div 10 \text{ mSv/h}$
- Version 01: $0.1 \mu\text{Sv/h} \div 10 \text{ Sv/h}$
- Version 02: $0.1 \mu\text{Sv/h} \div 100 \text{ Sv/h}$

Other Characteristics

- Energy range: $0.05 \div 3.0 \text{ MeV}$
- Temperature range: $-60^\circ\text{C} \div +80^\circ\text{C}$
- IP68 enclosure

Overall dimensions and weight:

- Basic version: $\varnothing 68 \times 141 \text{ mm}$, 0.65 kg
- Version 01 and 02: $\varnothing 68 \times 179 \text{ mm}$, 0.7 kg
- Wall-mount bracket: $200 \times 122 \times 117 \text{ mm}$, 2.24 kg



DBG-S101D

High range gamma and X-Ray monitor

Continuous measurement of ambient dose equivalent rate (ADER) for X-Ray and gamma radiation. Consists of ionization chamber module and electrometric interface unit.

Measuring range:

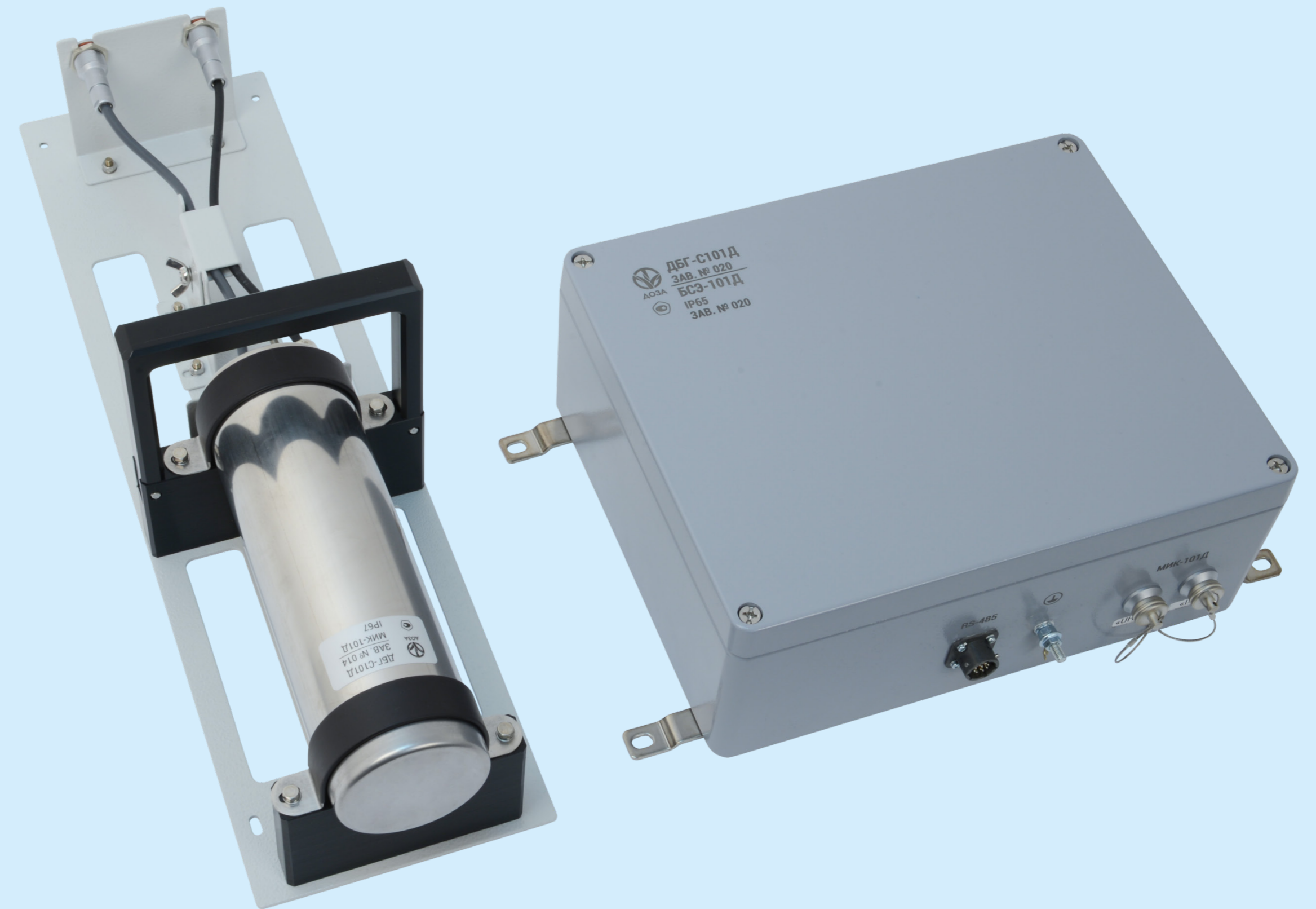
- 1·10Sv/h ÷ 10 Sv/h
- Energy range: 0.05 ÷ 3.0 MeV

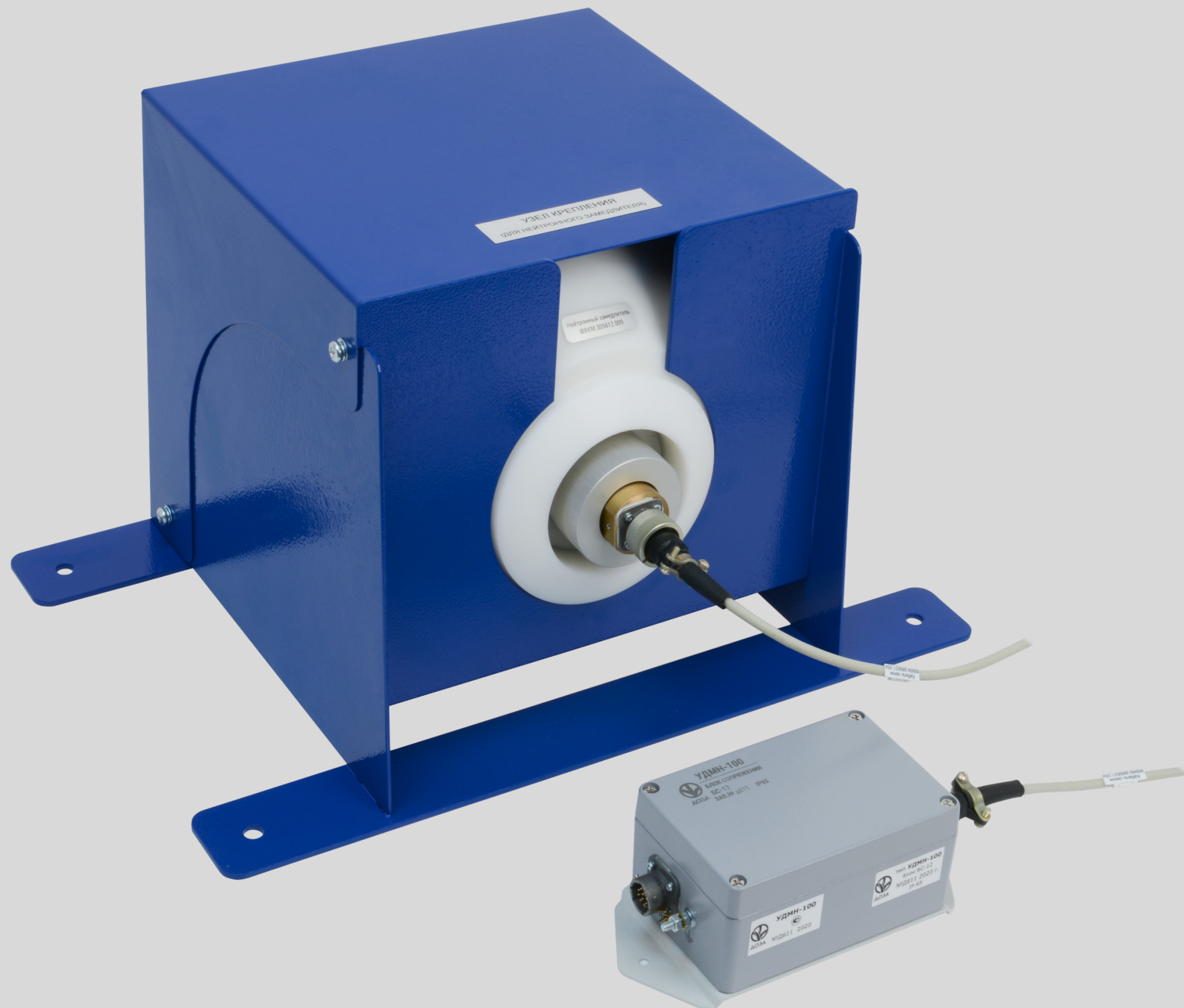
MIC-101D ionization chamber module:

- Temperature range: -40°C ÷ +80°C
- IP67 enclosure
- Overall dimensions and weight: 500×140×160 mm, 2.6 kg

BSE-101D electrometric interface unit:

- Temperature range: -40°C ÷ +55°C
- IP65 enclosure
- Overall dimensions and weight: 350×260×120 mm, 5.5 kg





UDMN-100 Neutron area monitor

Continuous measurement of ambient dose equivalent rate (ADER) for neutron radiation.

- Spherical polyethylene moderator \varnothing 239 mm
- Measuring range: $0.1 \mu\text{Sv/h} \div 0.1 \text{ Sv/h}$
- Energy range: $0.025 \text{ eV} \div 10.0 \text{ MeV}$
- Temperature range: $-45^{\circ}\text{C} \div +50^{\circ}\text{C}$
- IP65 enclosure
- Overall dimensions and weight: $428 \times 347 \times 258 \text{ mm}$, 13.8 kg



BDZA-07D

High sensitivity scintillator detector for Alpha radiation measurement

- Type of detector – Plastic scintillator
- Detector size: 146,4 cm²
- Energy range of detected alpha radiation: 4.0 ÷ 8.0 MeV
- Measurement range of alpha radiation flux density: 0.1 ÷ 1·10⁵ min⁻¹cm⁻²
- Measurement range of surface activity of Pu²³⁹ radionuclide: 1.0·10⁻² ÷ 3.4·10³ Bq/cm²
- Sensitivity to alpha radiation of radionuclide Pu²³⁹, no less: 1.2 s⁻¹/(min⁻¹·cm⁻²)
- Temperature range: -30°C ÷ +55°C
- Overall dimensions: 180×170×75 mm
- Weight: 1.2 kg
- Hand grip and wall-mount holder





BDZA-09D

High sensitivity scintillator detector for Alpha radiation measurement

- Type of detector – Plastic scintillator
- Detector size: 465 cm²
- Energy range of detected alpha radiation: 4.0 ÷ 8.0 MeV
- Measurement range of alpha radiation flux density: 0.1 ÷ 1·10⁵ min⁻¹cm⁻²
- Measurement range of surface activity of Pu²³⁹ radionuclide: 1.0·10⁻² ÷ 3.4·10³ Bq/cm²
- Sensitivity to alpha radiation of radionuclide Pu²³⁹, no less: 1.2 s⁻¹/(min⁻¹·cm⁻²)
- Temperature range: -30°C ÷ +55°C
- Overall dimensions: 360×200×85 mm
- Weight: 2.9 kg
- Wall-mount bracket (for hand measurement)
- Floor-mount support (for foot measurement)



BDZB-18D

High sensitivity scintillator detector for Beta radiation measurement

- Type of detector – Plastic scintillator
- Detector size: 465 cm²
- Energy range of detected Beta radiation: 0.156 ÷ 3.54 MeV (max); 0.049 ÷ 1.508 MeV (average)
- Measurement range of beta radiation flux density: 1.0 ÷ 5·10⁵ min⁻¹cm⁻²
- Measurement range of surface beta-activity of Sr⁹⁰+Y⁹⁰ radionuclide: 3.4·10⁻² ÷ 1.7·10⁴ Bq/cm²
- Sensitivity to beta-radiation of radionuclide Sr⁹⁰+Y⁹⁰, no less: 3.6 pulses·s⁻¹ / (min⁻¹·cm⁻²)
- Temperature range: -30°C ÷ +55°C
- Overall dimensions: 360×200×85 mm
- Weight: 2.9 kg
- Wall-mount bracket (for hand measurement)
- Floor-mount support (for foot measurement)





BDZB-19D

High sensitivity scintillator detector for Beta radiation measurement

- Type of detector – Plastic scintillator
- Detector size: 146.4 cm²
- Energy range of detected Beta radiation: 0.156 ÷ 3.54 MeV (max); 0.049 ÷ 1.508 MeV (average)
- Measurement range of beta radiation flux density: 1.0 ÷ 1·10⁶ min⁻¹cm⁻²
- Measurement range of surface beta-activity of Sr⁹⁰+Y⁹⁰ radionuclide: 3.4·10⁻² ÷ 3.4·10⁴ Bq/cm²
- Sensitivity to beta-radiation of radionuclide Sr⁹⁰+Y⁹⁰, no less: 1.2 pulses·s⁻¹ / (min⁻¹·cm⁻²)
- Temperature range: -30°C ÷ +55°C
- Overall dimensions: 180×170×75 mm
- Weight: 1.2 kg
- Hand grip and wall-mount holder



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All pictures are for illustrative purpose only. Technical characteristics are subject to change without prior notice.

