

# Criticality Accident Alarm System SRKS-01D



*Complies with the IEC 60860, ANSI/ANS-8.3, ISO 7753*

## **Purpose:**

- detection and recording of criticality accident (CA) by measuring the absorbed dose rate (ADR) of gamma-neutron radiation in the premises of monitored object, its comparison with a threshold value and generation of audible and visual signals;
- automatic collection, processing, storage and display of measurement data and related information as visual and graphical representation for operators of nuclear safety service.

## **Functions of the system:**

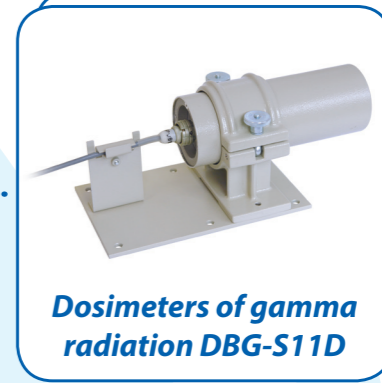
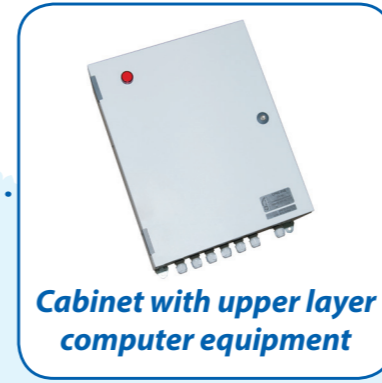
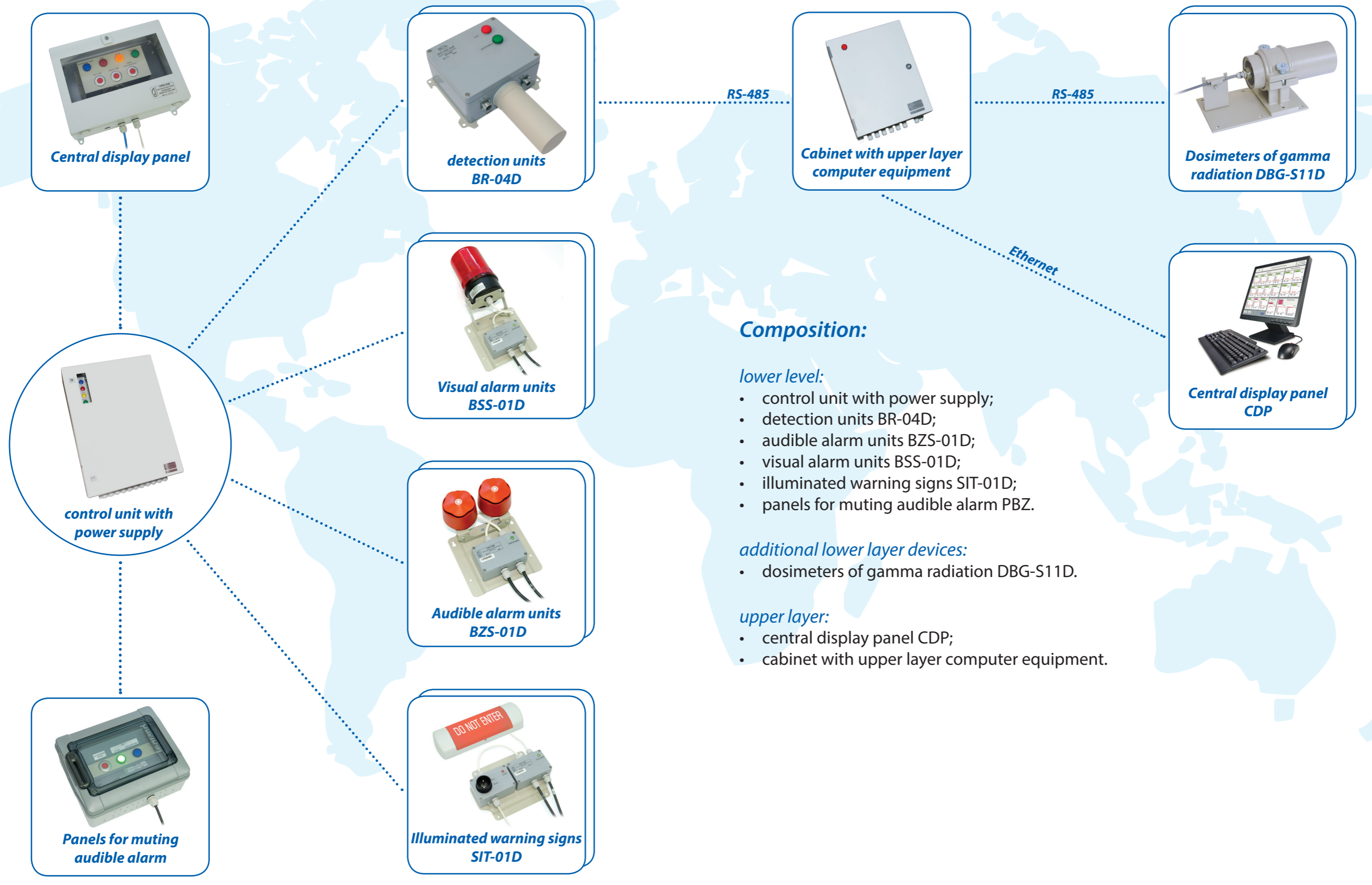
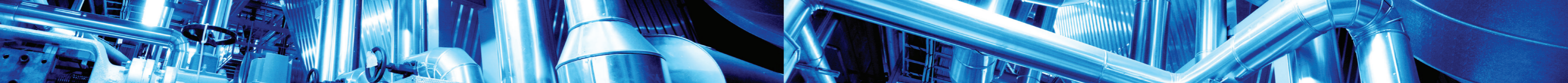
- detection and recording of CA events by continuous measurement of ADR of gamma radiation, comparison of measured values with preset thresholds, generation of signals to activate the alarm;
- activation of audible / visual alarm;
- in the event of CA: turning on warning signals "DO NOT ENTER!" at illuminated information panels placed at the entrances to the controlled area.

## **Features:**

- data can be transferred to external data communication channel using RS-485 interface (DiBus data exchange protocol);
- automatic self-testing of recording units BR-04D with display of information about the type of fault;
- possibility for connecting additional recording and signalling units and devices;
- ability to function in general, regardless of the functioning of components, within the agreed scope of nuclear safety tasks;
- radiation hardness up to 10 Gy.

## **Features of software:**

- collection of information via RS-485 network, displaying it on the monitor, transmission to remote users, archiving and storage;
- status monitoring and display of values measured by BR-04D and DBG-S11D in locations as per layout of premises;
- access to archived data with possibility to generate reports for periods determined by operator;
- maintenance and archiving of a log of dosimetric measurements data and events along with their time stamps;
- possibility to transfer data to external users via Ethernet network for integrating of CA into higher level systems.



**Composition:**

- lower level:*
- control unit with power supply;
  - detection units BR-04D;
  - audible alarm units BZS-01D;
  - visual alarm units BSS-01D;
  - illuminated warning signs SIT-01D;
  - panels for muting audible alarm PBZ.



- additional lower layer devices:*
- dosimeters of gamma radiation DBG-S11D.

- upper layer:*
- central display panel CDP;
  - cabinet with upper layer computer equipment.



# *Criticality Accident Alarm System*

## *SRKS-01D*

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