



RADIATION MONITOR RM-1SM-02

DETECTION OF FISSILE AND RADIOACTIVE MATERIALS CARRIED BY PEDESTRIANS

INTENDED USE

Automatic detection of gamma radiation sources carried by a pedestrian through the search area, in continuous mode.

APPLICATION

The RM-1SM-02 radiation monitor is used for radiation monitoring of pedestrians in crowded areas, at transport facilities, in offices and other institutions.

KEY FEATURES

- Operating mode - continuous, automatic
- Sound and visual alarms
- Settable detection thresholds
- Automatic classification of alarms into three safety categories set by the operator
- Possibilities of expansion and connection of external devices
- Generation of "dry contact" in case of an alarm event
- Automatic registration of events in a non-volatile archive
- Embedded automatic selftest system
- Access to the system parameters via RS-485 interface (optional Ethernet)
- Generation of video information on the target object (when video surveillance sets are connected)
- Service life is 12 years

DESIGN

RM-1SM-02 is designed as a metal case containing gamma detector and electronics units. The monitor is equipped with an embedded occupancy sensor and light and sound alarms.

Application of lead shields enhances efficiency of gamma radiation detection.

The monitor transfers data to a control panel or a computer and mobile device with the installed dedicated software.





RM-1SM-02

SPECIFICATIONS

Detection channels	gamma
Gamma detector	plastic scintillator
Detection thresholds (detection with probability of no less than 0.5 at a confidence level of 0.95) for a search area width of 0.8 m and height 2 m and object speed of up to 5 km/h	140 kBq (¹³³ Ba) 170 kBq (¹³⁷ Cs) 85 kBq (⁶⁰ Co)
False alarm rate	0.001
Ingress protection	IP54
Environmental	-50 to +50 °C, 95 %
Dimensions	(765×176×176) mm
Weight, max	14 kg
Power supply	(9–28) V, 10 V·A max
Installation place	indoor
Objects	pedestrians

CERTIFICATION

- Complies with the requirements for the functional properties of technical means of ensuring transport security, approved by the Decree of the Russian Federation Government dated September 26, 2016 No. 969
- Complies with the Customs Union Technical Requirements "Safety of Low Voltage Equipment" (CU TR 004/2011) and "Electromagnetic Compatibility of Technical Means" (CU TR 020/2011)



By 2023, over 8000 RM radiation monitors of various modifications have been produced and put into operation.