



RADIATION PORTAL MONITOR YANTAR-2P

FIXED-SITE SYSTEM FOR DETECTION OF FISSILE AND RADIOACTIVE MATERIALS CARRIED BY PEDESTRIANS

INTENDED USE

Automatic detection of gamma and neutron radiation sources carried by pedestrians through the search area.

APPLICATION

High sensitivity, reliability, ease of use and maintenance allow the Yantar-2P radiation monitors to be successfully operated at pedestrian checkpoints of various purpose, configurations and throughput.

KEY FEATURES

- Operating mode - continuous, automatic
- Sound and visual alarms
- Settable thresholds for each detection channel
- 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
- Storage and output of archive data to external devices (when connected)
- 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

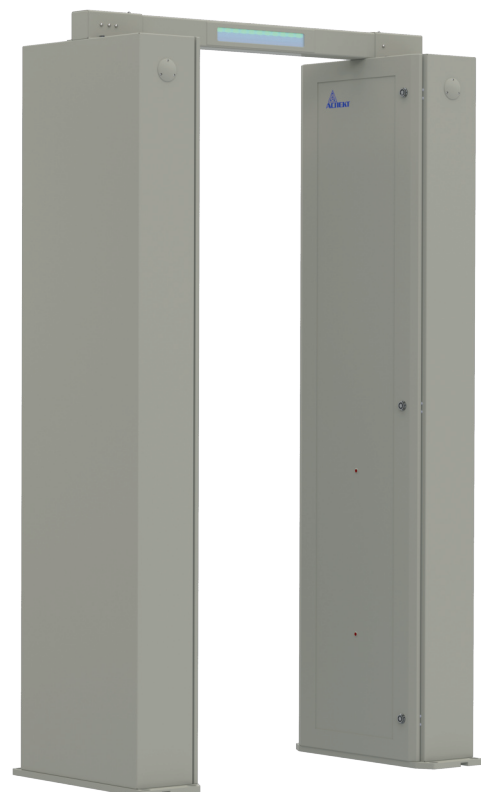
DESIGN

Yantar-2P consists of two metal pillars mounted opposite each other at the search area borders and joined with a box or pipe-like bridge. The pillars contain electronics units, gamma and neutron detectors. The bridge has sound and light alarming devices that set off when the detection threshold is exceeded.

Lead shields used for gamma detectors serve to enhance gamma detection efficiency.

Infrared occupancy sensors ensure reliable detection of vehicles in the search area even in extreme weather conditions.

The radiation monitors transfer data to the control panel or a PC with the application specific software installed.





YANTAR-2P

SPECIFICATIONS

Detection channels	gamma and neutron
Gamma detectors	plastic scintillators
Neutron detectors	^3He counters
Detection thresholds (detection with probability of no less than 0.5 at a confidence level of 0.95) for a search area width of 0.7 m and speed of up to 5 km/h	11 kBq (^{133}Ba) 11 kBq (^{137}Cs) 7 kBq (^{60}Co) 2100 neutron/s (^{252}Cf)
False alarm rate	0.001
Ingress protection	IP54
Environmental	-50 to +50 °C, 95 %
Dimensions	(2142×646×245) mm (1 pillar)
Weight, max	305 kg (1 pillar)
Power supply	(85-265) V, (47-63) Hz, max 70 V·A
Run time on the built-in batteries, min	10 hours
Installation place	indoor, outdoor under canopy
Objects	pedestrians, baggage

CERTIFICATION

- Registered in the State Register of Measuring Instruments under No 16756-10
- 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 2022, over 8000 Yantar radiation monitors of various modifications have been produced and put into operation.