

Small Items Monitors SIM-100, SIM-300



Small Items Monitors SIM-100 and SIM-300 are intended for checking and indicating contamination on small items by beta and gamma emitting radionuclides. Typical items are identification cards, keys, and other items carried out of the controlled area.

Purpose

The SIM-100 and SIM-300 Small Items Monitors are intended for checking and indicating contamination on small items by beta and gamma emitting radionuclides.

The result of SIM-100 and SIM-300 measurement is:

- Indication showing that the specified signal level has or has not been exceeded
- Indication of contamination rate (the contamination is indicated as a percentage of the preset alarm level)

The SIM-100 and SIM-300 Small Items Monitors may be connected to a whole-body personnel contamination monitor. Employees leaving the controlled area can therefore simultaneously measure the contamination of their body and small items carried out.

Based on customer requirements, it is possible to set the control logic so that the exit door of the whole-body monitor only opens when the results of measurements performed by both monitors are negative, i.e. under the preset alarm levels.

Description

Small Items Monitors consist of a detector, control and measuring unit and signal panel.

Plastic scintillators of various thicknesses are used as detectors.

Main Advantages

- Two types of detection devices for the measurement of various types of surface contamination
- Ability to work in connection with whole-body personnel contamination monitors
- Possibility to connect to a security system, such as doors, turnstiles, etc.



SIM-300 connected to a whole-body personnel contamination monitor

Description

The Small Items Monitors can be supplied with a detection window according to customer's requirements. The window can be composed either of a aluminized PET film with a protective grid that ensures good transmittance of beta radiation or a 0.5mm thick aluminium sheet that transmits only gamma radiation.

The control and measuring unit contains necessary power supply sources, ensures the processing of signals from the detector and output of the measured values to the signal panel, or optionally also to the host system.

The signal panel produces visual and acoustic alarms indicating the state of the device and measurement results.

During measurement, the items to be controlled are placed on the sensitive part of the detector which is on the top of the device. The measurement is performed continuously or initiated by external contact. The measurement result is indicated on the display by a red or green indicator and as a percentage of the preset alarm level. The acoustic alarm indicates either the beginning or the end of the measurement, or that the alarm level has been exceeded.

Monitor	SIM-100	SIM-300
Type	K0402	K0208
Radiation detected	Beta + Gamma	Gamma
MDA	From 30 Bq	From 300 Bq
Energy range	100 keV ~ 1.5 MeV	
Detector type	plastic scintillator	
Reference source	⁹⁰ Sr	¹³⁷ Cs
Detector thickness	0.7 mm (0.025 in)	50 mm (2 in)
Detector dimensions	(240 x 120) mm (9.5 x 4.7 in)	
Weight	App. 4 kg (8.8 lb)	App. 5 kg (11 lb)
Power supply	24 VDC	
Electrical protection	IP 51	
Illustrative image		

Model and Accessories

Type	Description
K0402	SIM-100 Small Items Monitor (beta + gamma)
K0208	SIM-300 Small Items Monitor (gamma)
Optional Accessories	
<ul style="list-style-type: none"> Power supply adapter 230 VAC Holders for fastening according to customer requirements 	
Related Products	
K130X	Personnel Exit Monitor ExitScan-2 series
K1112	Small Items Monitor SIM-02



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