

SpecMon

Identifying Portal Monitor



Features

- MMCA component widely used by IAEA and EURATOM Safeguards inspectorates
- Fast spectrum acquisition and isotope identification on industry PC
- Minimum response time = 1 sec (includes spectrum measurement and isotope identification)
- Relevant spectra are archived on hard disk for later in-depth investigation
- Configurable audio and visual alarms (signal lights)
- Neutron detection channel based on moderated He-3 counter, designed to meet ITRAP requirements
- Occupancy sensor to allow automated background update
- Triggered video camera system
- GBS provides full support with project planning, installation, maintenance and off-line isotope identification support in difficult cases
- Designed for low electromagnetic emission and not sensitive to EMI for cell phones, radar and other sources
- Gamma/Neutron Spectral pedestrian portal monitor with realtime isotope identification
- Identifies “innocent” medical isotopes in real time when the passengers are passing with their luggage
- Detects common industrial isotopes and nuclear materials; Alerts front line officer to prompt follow-up
- Reduces the workload of customs officers by an order of a magnitude
- For use at airports, seaports or other choke points where passengers and their luggage need to be screened for radioactivity

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Technical Data

Detection and isotope identification

Large volume NaI detector for

- gamma spectrometry
- source detection and
 - isotope identification
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Moderated He-3 neutron detector qualified for border monitoring

Gamma sensitivity, energy range

Total (detection): 25 to 3000 keV, for spectrometric evaluation: 25-1600 keV

Conditions for green ("innocent" alarm)

- dose rate at monitor <50 µSv/h AND
- medical isotope (F18, Ga67, Tc99m, In111, I123, I125, I131, Xe133, Tl201)
- AND no other isotope identified

Red alarm when other isotopes are identified

Alarm settings and conditions can be customized
Mechanical, power supply

Alarm, interfaces

three colour signal lamp:

- red for alarms,
- green for innocent alarms (medical isotopes)
- yellow for system status

PC camera: In case of alarm, pictures are stored.

Internal RJ45 plug (Ethernet) for connection to a Network.

Optional occupancy sensor (IR movement detector):

no alarm without occupancy sensor triggered.

Possibility to connect VGA monitor for instant viewing of evaluation results (spectra, isotopes).

Inconspicuous designed box:
1250 x 600 x 320 mm

Mains supply:

100-230 V~ 100 W; 50/60 Hz or 12 V, 6 A

Weight: 70 kg approx

Environmental conditions

housing corresponds to IP54

Temperature range -15 °C to +45 °C

Humidity up to 90 %, non condensing

Options

Devices with neutron and gamma sensitivity as requested by users

User customized alarm options

Documentation in English, Russian or German