

The Safety-Guard series of radiation detection systems offer a configurable approach to optimize screening of packages, people, or vehicles, for incident prevention and accident response

Safety-Guard

Intelligent radiation detection systems to maximize interdiction protection



Safety-Guard Protects:

- Borders
- Airports
- Seaports
- Government Buildings
- Power Plants
- Financial Institutions
- Banks
- Mints
- Military Bases
- Postal Service
- Courier Service
- Public Utilities
- Embassies



Thermo Electron Corporation's Safety-Guard Series of radiation detection systems offer optimized protection against illicit trafficking of nuclear materials. With over 1400 systems installed worldwide at borders, sea ports, couriers, government buildings and other critical infrastructure, Thermo has a dominant presence in supplying these mission critical type systems.

No one else offers the industry-leading "Natural Background Reduction" (NBR) technology. NBR offers significant gains in detection sensitivity, while lowering false alarms due to naturally radioactive materials of no consequence or concern. Large area, premium-grade scintillation detectors provide 24/7 maximum detection to any objects, persons or vehicles passing by. Neutron detectors are also available to enhance detection of Special Nuclear Materials (SNM).

Thermo offers a configured approach to best facilitate each site-specific criteria to optimize protection without compromise in fulfilling the mission. A variety of controllers, detectors, options, accessories and services all combine to ensure the highest level of security is assured.

Our mission at Thermo, to maximize protection by delivering the very best technology, detection sensitivity and reliability, is no less important than your own - protecting our families, friends, neighbors and properties.

Radiation Monitoring Systems

The advanced Safety-Guard series of radiation detection systems utilizes a modular design that offers selection between two configurable controllers (Series I & Series II). To optimize detection coverage, upwards of 8 detectors may be linked to a controller using either the gamma only (G) or gamma-neutron (GN) detectors equipped with either 500 in³ or 1500 in³ scintillation volumes. Contact our security specialists to configure a system optimized to meet your criteria.

Safety-Guard Specifications

Detector Specifications	500G	1500G
Volume:	8190 cm ³ (500 in ³)	24580 cm ³ (1500 in ³)
Sensitivity:	500 cps/μR/h	1500 cps/μR/h
Detector Plastic Size:	122 H x 13 W x 5 D cm (48" H x 5" W x 2" D)	122 H x 38 W x 5 D cm (48" H x 15" W x 2" D)
Detector Enclosure Size:	152 H x 20.5 W x 20.5 D cm (60" H x 8" W x 8" D)	183 H x 46 W x 30.5 D cm (72" H x 18" W x 12" D)
Weight:	90 kg (200 lbs.)	154 kg (340 lbs.)

Controller Specifications	SERIES I	SERIES II
NBR Technology	Yes	Yes
Maximum Detectors	2 Gamma, 2 Neutron	8 Gamma or 4 Gamma & 8 Neutron
Electronics System	Thermo FHT 6020 electronics	PC-based system
Data Logging	1300 points	Defined by Hard Drive Size (>20 Gb)
Data Collection	Every second	Every 200 milli seconds
Packaging	Wallmount outdoor enclosure NEMA 4 <ul style="list-style-type: none"> • (Door window optional NEMA12) • Key security locks 	
Options:	Desktop Pentium-class PC	
Self Shielding Algorithm	No	Yes
Enhanced Neutron Alarm	No	Yes
Sum Channels	No	Yes
Built-in Audible Alarm	Yes	No
Size:	18.2 H x 13 W x 6.6 D cm (7" H x 5" W x 2.6" D)	17.8 H x 49.3 W x 50 D cm (7" H x 19" W x 19.5" D)
Operating Temperature:	-20 to 50 °C (-4 to 122 °F)	0 to 50 °C (32 - 122 °F)
Humidity	10 - 90 % Non condensing	10 - 90 % Non condensing
Camera Support	No	Optional
Display	124 x 64 pixel monochrome LCD	38 cm (15") Color CRT (16 cm (6.5") built-in color LCD optional)
External Modem Support	Yes	Yes
Setup/Calibration	Via connection to laptop running Thermo program	Built-into existing program running on PC

Options

Neutron Detection Capability
Remote Alarm
Modem
Uninterruptible Power Supply (UPS)
Occupancy Sensor
Speed Sensor
Ethernet Connection
Camera (Series II only)
Mounting Stanchions

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