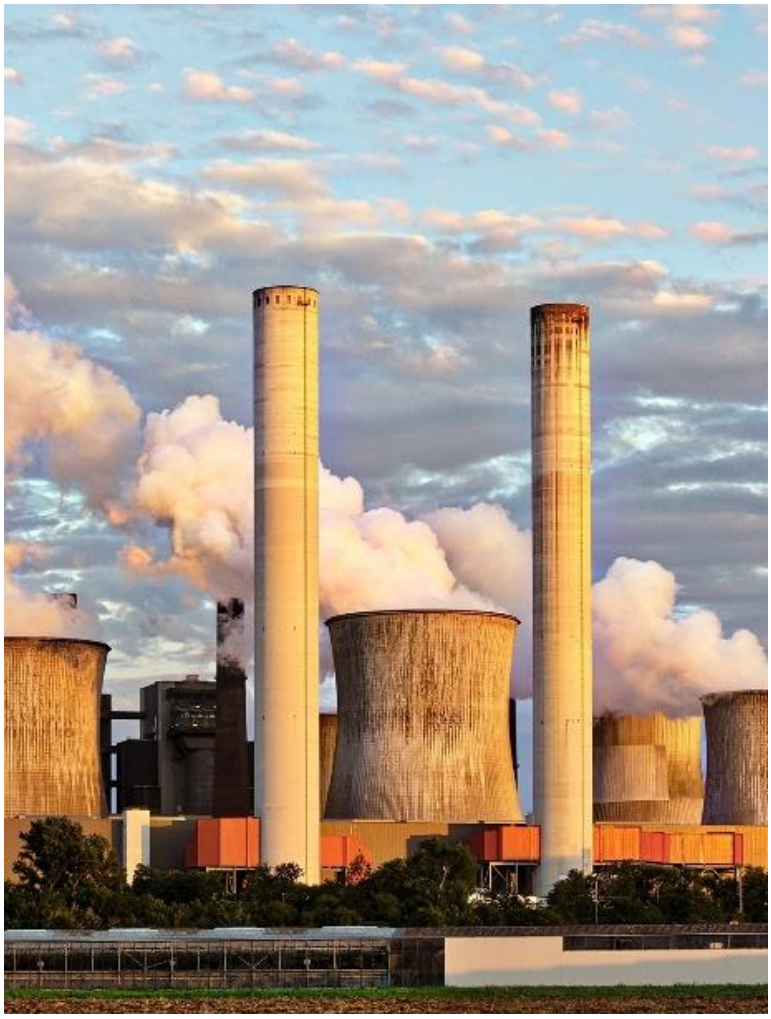
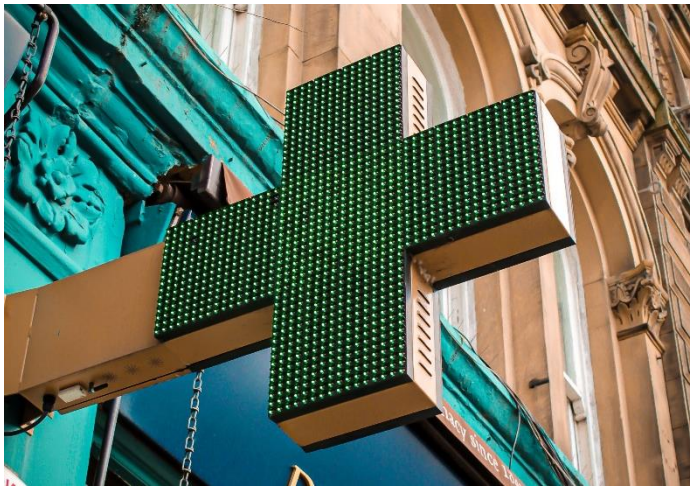
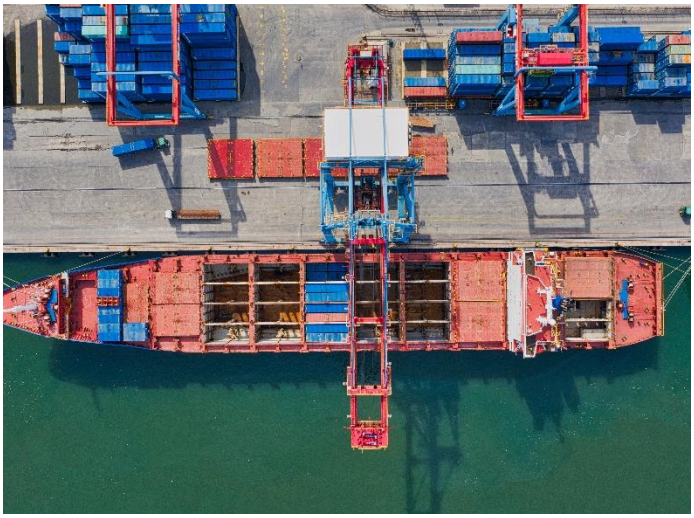
Model 960 Radiation Monitoring System







Features

- X & Gamma Radiation monitoring
- Real-Time Data Acquisition
- 100 nSv/h Background – Detect radiometric anomalies of 16 nSv/h
- Sturdy Plastic Scintillation Detector / Robust Housing
- Background Shielding: 10 mmPb
- Sensitivity: 150 kcps/µSv/h

Key Applications

- Discrete Perimeter Monitoring
- Unmanned Remote Monitoring
- Cargo Container Security
- Conveyor or Robotic System Integration
- Surveillance of Critical Infrastructure
- Other Moving Source Locations (*Medicine Departments, Personnel Doorways, Conveyer Belts*)

Model 960
Radiation Monitoring System

Model 960 Radiation Monitoring System

Model 960

About

The Model 960 Radiation Monitoring System works as the next best solution for the growing need for radiometric control systems in waste management and incineration facilities. The Model 960 is a high-sensitivity monitor designed to locate unwanted radioisotopes, regardless of varying backgrounds, that often runs the risk of radiological, economic, and legal issues. The Model 960 is optimized to fit anywhere in your facility.

The Model 960 discrete form factor holds a large plastic scintillation detector paired with counting electronics and a state-of-the-art algorithm that allows 100% detection probability. Features include an alarm beacon, a panel PC for system control, and they are available in dual configurations set to meet your exact needs.

Performance & Functionality

Even in standby, the Model 960 is still in "background mode," computing a new background average. Each second, the background is recalculated as the average of the last 5 minutes.

Suitable selective presence sensors stop background updates and start the measurement when an object passes (person, trolley, vehicle, etc.). This prevents unwanted alarms caused to the passage of unrelated people or objects. The system offers the possibility of selecting the alarm threshold and provides a sound and light alarm when this threshold is exceeded.

Each detector is shielded by 1 cm of Pb with the dual purpose of shielding the background and increasing measurement efficiency by providing some backscattering. It is possible to print alarm reports on a local or remote printer (via network). The system can also be fully managed remotely from any PC on the local network after entering the access password.

Berkeley Nucleonics Corporation
info@berkeleynucleonics.com | www.berkeleynucleonics.com
2955 Kerner Blvd, San Rafael, CA 94901 | 800-234-7858

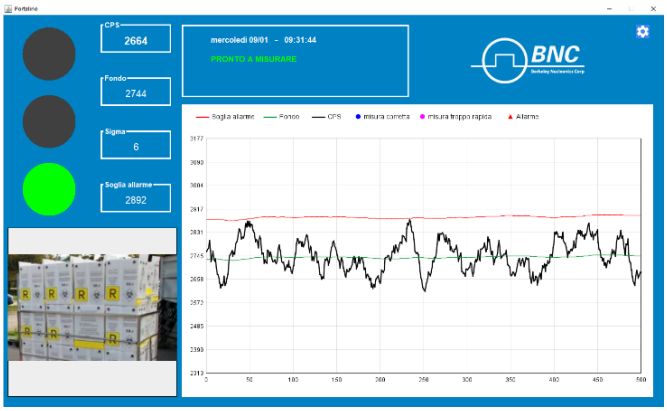
Model 960

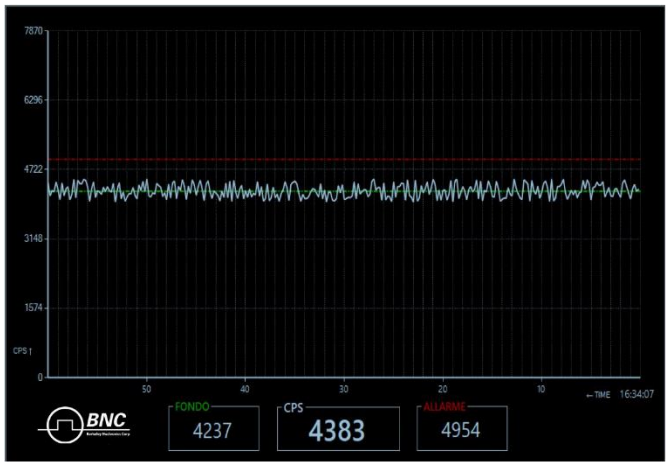
Operation

The averaging time is programmable by the operator, and the factory is set to 300 seconds. An alarm threshold is set at a level that is high enough to prevent false alarms.

When an object is signaled by the proximity sensors, the Model 960 enters in measurement mode. It sets the alarm threshold to a programmable value (“measurement with object”). The Model 960 accepts a wide variety of sensors to meet every requirement. The picture shows the actual count rate vs time (in black), average (light green), and alarm threshold (red line).

This dual operational mode is ideal for finding the balance between sensitivity and false alarms. If the sensors are expected to be always engaged (such as a conveyor belt or a highly crowded area), it is advisable to set the two thresholds at the same level.





Model 960

This option the best solution for an extra control, after your vehicle or portable monitor, featuring virtually 100% detection probability. Ideal for conveyor belt, near the mill or everywhere you need it. It is controlled by a PC placed nearby or in an office, the alarm could be local and/or remote.

Berkeley Nucleonics Corporation
info@berkeleynucleonics.com | www.berkeleynucleonics.com
2955 Kerner Blvd, San Rafael, CA 94901 | 800-234-7858

Model 960

Model 960 Specifications

Physical

Control Unit	1
Size - Weight	500 x 200 x 400 mm – 22.05 lbs
Power Supplies	110 – 220 VAC
Power Consumption	Negligible
Connection Cable to Detector Unit	10 m
Optional	Proximity sensors, camera

2A – Large Detector – 25 LITERS

Detector Box Size - Weight	1570 x 700 x 110 mm – 242.51 lbs
Actual Detector Size	1000 x 500 x 50 mm
Background Shielding	10 mmPb
Sensitivity	150 kcps/µSv/h
Acquisition Electronics	Preamplifier, HV and data acquisition
Housing	High-transparency robust housing (PVC in front of detector – stainless steel elsewhere)
Typical Performance	In a 100 nSv/h background, will detect radiometric anomalies of 16 nSv/h

2B – Small Detector – 5 LITERS

Detector Box Size - Weight	500 x 200 x 400 mm – 66.14 lbs
Actual Detector Size	220 x 220 x 50 mm
Background Shielding	Not available
Sensitivity	20 kcps/µSv/h
Acquisition Electronics	Preamplifier, HV and data acquisition
Housing	High-transparency robust housing
Typical Performance	In a 100 nSv/h background, will detect radiometric anomalies of 25 nSv/h

Berkeley Nucleonics Corporation
info@berkeleynucleonics.com | www.berkeleynucleonics.com
2955 Kerner Blvd, San Rafael, CA 94901 | 800-234-7858