

thermoscientific

Any scenario.
Maximum protection.



Radiation detection solutions for
safety and security

ThermoFisher
SCIENTIFIC

Radiation detection solutions for security personnel

Delivering dependable safety and security solutions for over 50 years, we offer the most comprehensive portfolio of products for any industry.

Key Products

Law Enforcement



RadEye SPRD pg. 3 & 4
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Customs & Border Patrol



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Fire Departments



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Maritime



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Military



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Event Planning



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We are constantly advancing technology to protect against the threat of radiation and radioactive material with real-time detection and immediate results. From mobile detection devices to mobile and portal detection monitors we have a solution for any scenario.

To view the full portfolio, visit www.thermoscientific.com/radiationsecurity

Handheld personal radiation detection instruments

Our portfolio of Thermo Scientific™ RadEye™ handheld radiation meters offers a comprehensive range of solutions for detection, dose rate and contamination measurements. These versatile pocket meters are small, easy to use, utilize low power and deliver superior measurement performance. Fully automated self-diagnosis minimizes required maintenance.

Natural background rejection

NBR is a technology used to eliminate fluctuating natural background levels while measuring radiation. This proprietary and patented technology is used to quickly differentiate between natural and artificial radiation by stripping away the natural background radiation that is registering, delivering you a more accurate result of artificial radiation levels.

Personalize your RadEye

Available with your custom colors and logos to meet your organizations needs.



In the Spotlight: RadEye SPRD

During A typical day walking the streets in a busy metropolitan area, an officer receives 5 alarms from his radiation detector. Most radiation detectors require time intensive investigations to determine if the radiation alarm is a true threat. However, with SPRD, the NBR immediately classifies 1 of the alarms as natural radiation from building material. Its identification algorithm automatically identifies 3 of the alarms as medical with the nuclide information, and the remaining alarm as an industrial nuclide, requiring a full investigation.

These added features keep the officer focused on the critical functions of their day because only one of the alarms requires a detailed investigation.

Handheld detection

Natural Background Rejection

We offer different levels of NBR to meet your application. Similar to standard definition, HD and 4K with your television, we offer 3 different levels of NBR across our RadEye line to meet your needs and budget.

Basic NBR (RadEye PRD series) - Simple, and low power consumption, Basic NBR can quickly determine if radiation is natural or artificial by placing gamma ray counts from the energy spectrum into 3 bins and evaluating the ratios.

Enhanced NBR with ID (RadEye SPRD) - Enhanced NBR improves performance over Basic NBR by leveraging a higher resolution detector and additional bins. With basic gamma spectroscopy capability, Enhanced NBR with ID provides results that increase confidence and reliability.

Advanced NBR with ID (RadEye SPRD-GN) - Leverages the Enhanced NBR features and adds an automatic detector energy stabilization algorithm for reliable classifications and identifications in any scenario.

Thermo Scientific RadEye PRD



Basic search and find instrument with NBR to quickly determine if alarms are due to natural or artificial radiation. Ideal for those with secondary identification capability

Who: Customs, counter terrorism, security, military, industrial

Measurement types: Low to medium levels of gamma radiation

Energy range: ($\pm 30\%$) – 60keV to 1.3MeV

Dose rate range: 1 μ R/h -25mR/h (0.01 μ Sv – 250 μ Sv/h)

NBR: Basic NBR

Thermo Scientific RadEye PRD-ER



Dual purpose search and find with extended range personal dose rate monitoring. For those whose job may require operating in a high dose rate environment

Who: Fire departments, hazmat teams, counter terrorism, military forces and other first responders who require sensitive search and find as well as operating in high dose environments

Measurement types: Background to critical safety levels of gamma radiation

Energy range: ($\pm 30\%$) – 60keV to 1.3MeV

Dose rate range: 1 μ R/h - 10R/h (0.01 μ Sv – 100 μ Sv/h)

NBR: Basic NBR

Thermo Scientific RadEye SPRD



The new standard for personal radiation detection. Accurate dose rate monitoring with search, find and nuclide classification

Who: Security/law enforcement, customs and border guards, counter terrorism teams, industrial applications, and any other users whose mission is to detect and identify illicit radiation

Measurement types: Accurate dose rate readings with identification of gamma radiation

Energy range: 40 keV- 3 MeV

Dose rate range: 1 μ R/h -25mR/h (0.01 μ Sv – 250 μ Sv/h)

NBR: Enhanced NBR with ID for improved accuracy

Thermo Scientific RadEye SPRD-GN



Gamma radiation detection, classification and identification with high sensitivity neutron detection

Who: Law Enforcement, Military personnel where combined primary and secondary screening is required or ideal: such as event support, maritime investigations and remote border monitoring

Measurement types: Accurate gamma dose rate readings with ID and high sensitivity neutron detection (thermal and fast neutrons)

Energy range: 50keV -3MeV gamma energy range

Dose rate range: 1 μ R/h-25mR/h (0.01 μ Sv – 250 μ Sv/h)

Neutron energy range: 0.025eV-14MeV

NBR: Advanced NBR with ID for fast and accurate response

Thermo Scientific RadEye GN Gamma Neutron Pager



Basic gamma and neutron search and find instrument with NBR to quickly determine if alarms are due to natural or artificial radiation

Who: Ideal for missions where supporting tools are limited, especially those with neutron detectors. Industrial, law enforcement, and first responders who require basic gamma and neutron detection in a single instrument

Measurement types: Accurate Gamma dose rate readings with ID, and Neutron detection (Thermal)

Energy range: (\pm 30%) – 60keV to 1.3MeV

Dose rate range: 1 μ R/h - 25mR/h, (0.01 μ Sv – 250 μ Sv/h)

Neutron detection: Meets ANSI N42.32-2006 (20,000 n/s Ca252)

NBR: Basic NBR

Handheld detection

Thermo Scientific RadEye G, G-10, GF and GF-10



Rugged and Reliable basic gamma dose rate survey meter for personal protection

Who: First responders whose job does not require location of hidden sources but may encounter high gamma dose rate environments

Dose rate range: G (G-10): 50µR/h to 10R/h (5µSv/h to 100mSv/h)

Dose rate range: GF (GF-10): 0.5mR/h – 300R/h (5µSv/h – 3Sv/h)

Energy range: G/ GF – 45 keV – 3MeV

Energy range: G-10/GF-10 - 50keV – 3MeV

Gamma sensitivity: G (G-10) – 17cps per mR/h (1.7 cps per µSv/h)

Gamma sensitivity: GF (GF-10) - 1.3cps per mR/h (0.13 cps per µSv/h)



Models available with ATEX certification for explosive environments



Thermo Scientific RadEye B20 and B20ER



Multipurpose surface contamination detector for alpha, beta and gamma radiation with configurable dose rate measurements

Who: Post accident first responders to measure surface contamination or quick dose rate surveys, industrial and medical applications

Measurement types: alpha, beta, gamma and X-Ray detection. Optional energy compensated filters for accurate dose rate readings

Dose rate energy range B20: 0-200mrem/h (0-2mSv/h)

Dose rate energy range B20-ER: 0-10rem/h (0-100mSv/h)

Contamination energy range B20: 0-10kcps

Contamination energy range B20-ER: 0-500kcps

Thermo Scientific RadEye SX, PX, and GX



Be prepared for virtually any radiation exposure scenario with multi-purpose survey meters that operate with external Geiger-Mueller (GM), scintillation or proportional counters.

Who: Configurable for security and law enforcement personnel to detect illicit radiation as well as first responders to detect radiation contamination post accident

Measurement types: Probe dependent. Capable of alpha, beta, gamma, neutron and X-Ray detection.

Features: • 16 different probes configurations can be stored on the instrument

- Automatic recording of 250 alarms and 1500 measured values
- 0-100,000 cps default measuring range

Accessories

Thermo Scientific RadEye Telepole

For safe, convenient detection at a distance

- Fits all RadEye models
- 2.3 meter (7.6 ft) and 4m (13.1 ft) versions available
- Fully adjustable
- Alarm vibration transferred from RadEye to handle
- RadEye automatically stores data for review later
- Live readings from RadEye can be read at the handle with optional Bluetooth transmitter and receiver



Thermo Scientific Probes

Variety and flexibility

- We have numerous probe options for a wide range of applications
- Custom probe kits can be generated upon request to meet your customer needs



Thermo Scientific Holsters

Versatile, rugged and field tested

- We offer a wide range stock or customizable holsters. Backed by the quality of DeSantis, our holsters are rugged enough for any application.
- We can work with your specific needs to design a custom holster to meet your specific needs.



In the Spotlight: Responding to Events

The first responders who help the general public during an accident require a high dose rate capable monitor beyond typical turnback levels (20mR/h) to alert them when they have exceeded their dose. During normal activities, they assist first preventers in large events and require a highly sensitive device to find threats. The RadEye PRD ER delivers the functionality to two devices in one small, portable instrument.

Radiation detection and identification for any scenario

Our range of radiation detection instruments offers you the latest technology and innovation to quickly and efficiently identify radiation sources. For over 50 years we have been providing those responsible for safety and security with dependable radiation detection instruments.

Solutions to meet any organizations' budget



Thermo Scientific™ RadEye™ SPRD
Spectroscopic Personal Radiation Detector



Thermo Scientific™ PackEye™ GN-2
Radiation Detection Backpack



Thermo Scientific™ RIIDEyeX™-GN
Handhold Radiation Isotope Identifier

Handheld radiation detection



Thermo Scientific™ RIIDEye™

Extraordinary performance and reliability with an unequaled cost of ownership

- Lightweight and balanced for comfortable long term use
- Automatic calibration and rugged design minimizes repairs
- He3 neutron detection performance without He3
- Withstands drops up to 1 meter from every angle
- Intuitive interface for new and seasoned users



In the Spotlight: Monitoring our ports

A Customs official assigned to monitor incoming cargo gets a radiation hit on a shipment by their portal monitor. The Official leverages his secondary screening process using RIIDEye X, locates and identifies the source in the shipment without entering the cargo container. The large, high sensitivity detector is capable of measuring and identifying sources at longer distances than typical RIIDs.

Mobile detection

Thermo Scientific™ RadHalo™ RDP & FM

Fast, autonomous, reliable radiation detection and identification

- Lightweight and balanced for comfortable long term use
- Automatic calibration and rugged design minimizes repairs
- Optional high sensitivity neutron detector
- Withstands drops up to 1 meter from every angle
- Intuitive interface for new and seasoned users



In the Spotlight: Simplified cargo scanning

Utilizing a network of RadHalo devices at a border port to inspect cargo eliminates the need for dozens of officers to be trained radiation detection experts. Deploy officers as you normally would and rely on 1 or 2 trained radiation experts to monitor all points and instruct officers if a threat is identified.

Thermo Scientific™ PackEye™ Radiation Detection Backpack

Quickly locate radiation threats

- High neutron sensitivity with either He3 or Li6 based detector option
- Lightweight and simple to use
- Stable product over lifetime with no need for regular optimization or stabilization
- Ideal for field use to quickly locate orphaned or hidden sources
- Optional rugged transport case for mobile and marine vehicle use. Monitor data nearby, in real time, using rugged PDA with Bluetooth





Thermo Scientific™ Mobile ARIS™ Detection System

Real-time, mobile and sensitive radiation detection, surveying and isotope identification

- Identify threats from further away
- Sweep target areas quickly and efficiently
- Real-time mobile detection and surveying
- Detect highly concealed sources
- Designed to withstand and be operational after a high speed crash per ANSI N42.43 -2006



Thermo Scientific MDS G(N)

Real time mobile detection with survey capability for security and post accident response

- Rapid set up in any vehicle from ground vehicle to boat to helicopter
- Quickly survey radiation in area and view visually on PC program
- NBR provides high sensitivity to detect low level gamma radiation even while in motion
- Optional high sensitivity neutron detector



Thermo Scientific™ Matrix Maritime RADspec™

Real time mobile detection with survey capability for security and post accident response

- Rapid set up in any vessel
- Quickly survey radiation in area and view visually on PC program
- Separate detector and controller allow for flexible mounting configurations in tight spaces.

Portal monitors

Thermo Scientific Portable TPM-903B Transportable Portal Monitors

Fast monitoring of large pedestrian crowds

- Accommodates pedestrians, wheelchairs, walkers, ambulance gurneys and strollers.
- Sets up in minutes with no tools required
- Head to toe coverage for maximum detection
- Sensitive, highly uniform responses to gamma radiation to FEMA levels
- Detects shielded sources



Thermo Scientific Mobile Portal Monitoring System (MPMS)

Rapid deploying NBR based portal for screening gamma and neutron radiation sources and threats

- Detector Fusion capable to link several MPMS together for added sensitivity
- Convenient transport capability with everything needed for the mission in a single container
- Rugged design for operations in any environment with long battery life
- High sensitivity neutron detection option built into pillar
- Onboard local audible and visible alarm notification with wireless data transmission to command center



Thermo Scientific Safety-Guard Series II (SGS II)

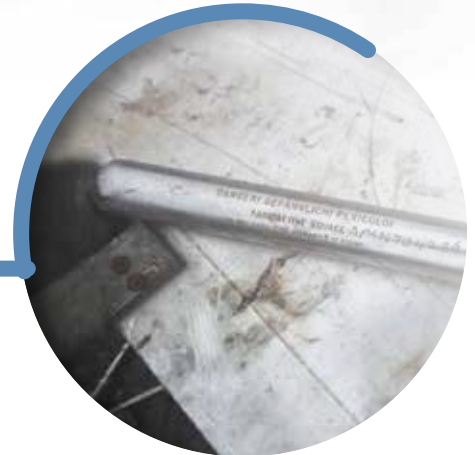
Detection solutions for containerized cargo and larger vehicles

- Modular system components for multiple scenarios and maximum protection
- Optional neutron detectors enhance detection of Special Nuclear Materials (SNM)
- Natural Background Reduction (NBR) technology



In the Spotlight: Hidden threats

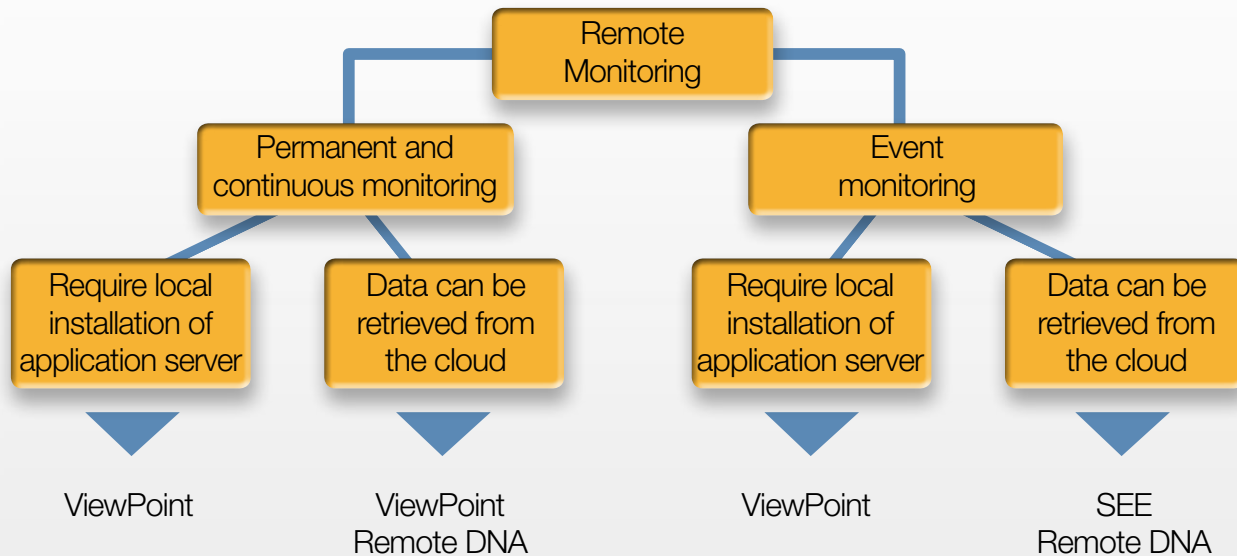
Radiation sources can be difficult to find to an untrained officer without proper equipment. Installing a portal monitor will ensure masked or hidden sources are located and properly removed.



Networking and remote monitoring

Flexible solutions to meet your needs and environment

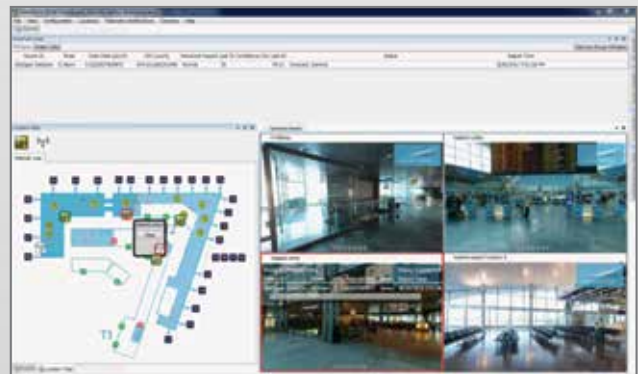
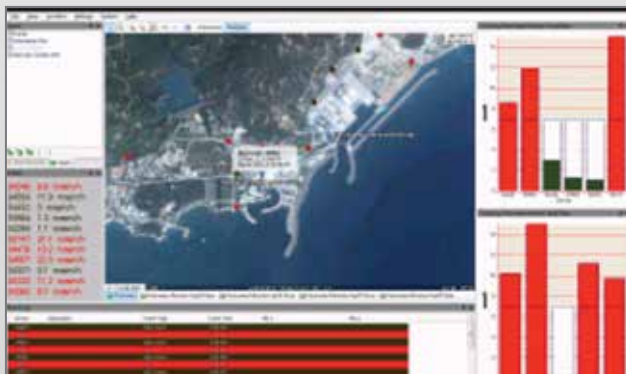
What solution is best for you?



ViewPoint

Ideal for comprehensive comprehensive initiatives and fixed monitoring programs

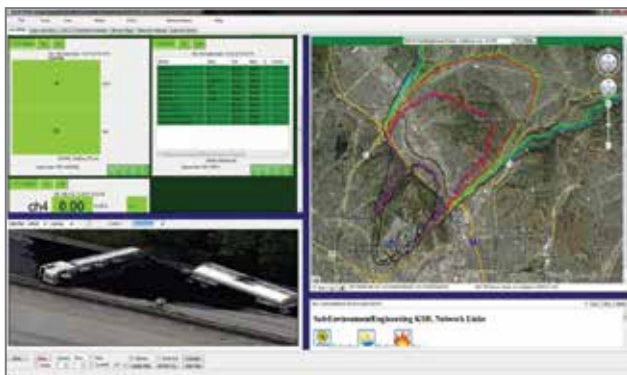
- Proven implementation with leading agencies
- Unmatched data storage capability and report generation
- Over 90 instruments already in plug-in database





Remote DNA

- Low yearly cost per instrument
- Cloud based solution
- Manage your fleet from your browser (requires all instruments to be internet connected)



SEE Multimeter Viewer

Ideal solution for large, coordinated security or response events

- Setup in minutes – connect LINKS with Life-Line connected meters
- Cloud based solution suited for event support
- Sophisticated plume tracker plug-in
- 50+ instruments already in Plug-in database



In the Spotlight: Radiation threats increase during key events and conventions

Local agencies participate in securing these events. The monitoring starts as a wide net (20 mi) and gets tighter with police forces from different communities working together. Quickly set up your system before the event to share data from RadEye SPRD and RadHalo RDP units deployed at the event entrance and PackEye, RadEye SPRD and MDS on the outskirts of the city. Viewing the data being collected in the Cloud allows teams to rapidly communicate threats easily and automatically.

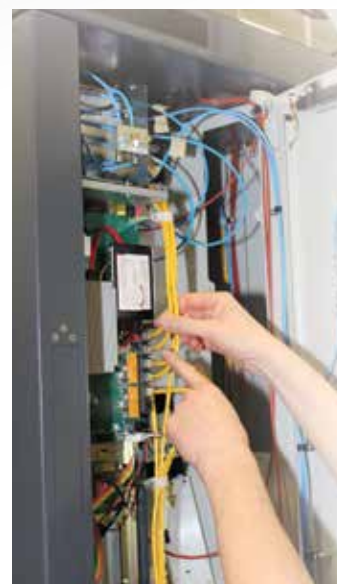


Thermo Scientific™ RADSafe™ Certified Services
Configurable services tailored to your specific needs

Select from a wide variety of service products to maximize the productivity of your assets while managing the high cost on unplanned maintenance and repair.

- Performance plans for customers who need standard service responses
- Essential plans for when rapid service response and uptime are business priorities

Configure your extended warranty, preventative maintenance, calibration and commissioning and start up services plan and enjoy peace of mind.



To learn more visit www.thermoscientific.com/radsafe

Find out more at www.thermofisher.com/radsafe

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