



# CBRNe Detection

for Security and Policing Applications

[www.southernscientific.co.uk](http://www.southernscientific.co.uk)



**Southern  
Scientific**

EXPERIENCE & EXPERTISE



Chemical

Griffin™ G510 ..... 3

Progeny ResQ CQL ..... 3

Griffin™ G400 Series ..... 4

Griffin™ X-Sorber ..... 4

MX908 Handheld Chemical Identifier ..... 4

MUVE™ C360 ..... 5

Agentase C2 ..... 5

Explosives

FLIR Fido X2 ..... 6

FLIR Fido X3 ..... 6

FLIR Fido X4 ..... 7

Progeny ResQ CQL ..... 7

MX908 Handheld Chemical Identifier ..... 7

Biological

BioThreat Alert™ Singleplex Strips ..... 8

BioThreat Alert™ Multiplex Strips ..... 8

BioThreat™ Alert Reader TX ..... 8

Tetracore T-COR 8 ..... 9

IBAC™ 2 ..... 9

Radiological / Nuclear

Tracerco PED Range ..... 10

Mirion DMC 3000 /DMC 3000 Personal Electronic Radiation Dosimeter ..... 11

Accurad PRD ..... 11

FLIR identiFINDER R200® ..... 12

FLIR identiFINDER R300® ..... 12

FLIR identiFINDER R400® ..... 13

FLIR identiFINDER R425® ..... 13

FLIR identiFINDER R440® ..... 14

FLIR identiFINDER R500® ..... 14

Mirion SPIR-Ace ..... 15

Mirion SPIR-Pack ..... 15

Mirion SPIR-Ident ..... 16

Mirion SPIR-Explorer Sensor ..... 16

Mirion SPIR-Ident Vehicle and Pedestrian Portal ..... 17

TSA PM700 Portal Monitor ..... 18

TSA VM250 ..... 18

Guardian Portal Monitor ..... 19

Griffin™ G510

The Griffin G510 is a next-generation chemical detector and identifier for military, civil, forensic, and environmental responders.

Versatile and person-portable, the G510 provides the user with the ability to quickly identify unknown threats and confirm known hazards which in turn gives responders the confidence to take immediate action.

- Completely self-contained, including vacuum system, batteries, and carrier gas – no service module needed.
- Accepts all phases of matter (liquid, solid, vapour).
- Analyses unknowns via quadruple mass analyser.
- Large, 9" touchscreen can be operated in the Hot Zone while wearing full PPE.
- Decon-ready with IP65-rated enclosure that is dust-tight, spray-resistant.



Progeny ResQ CQL

Ideal for use by Military personnel and First Responders, the Rigaku Progeny ResQ CQL is a robust, efficient and effective tactical tool for bulk screening of unknown chemical hazards, capable of identifying of solid and liquid chemical substances in seconds.

This easy to use handheld device is perfect for collecting data even in the most challenging conditions.

- Eliminates fluorescence interference (1064nm benefit).
- On-board camera (enhance your incident reporting!).
- Automatic precursor warning (4C combination warning of potential precursors).
- Non-visible sample detection (via integrated trace detection colorimetrics – Optional QuickDetect Mode).
- Measure through coloured packaging without sample preparation.
- Standard substance library of ~13,000 compounds including:
  - Explosives** – Includes military and civilian explosives, IEDs, precursors.
  - Narcotics** – Narcotic and psychotropic substances.
  - Hazardous Chemicals** – Toxic Industrial Chemicals/Materials (TIC/TIM).
  - Chemical Warfare Agents** – Includes blister, blood, nerve and choking agents, and precursors.
- MIL-STD-810G rugged.
- IP68 rated for easy decontamination.
- Connectivity (USB, WiFi).





## Griffin™ G400 Series

The Griffin™ G460 mobile GC/MS is designed to identify chemicals in complex samples.

The self-contained system accepts liquid, solid, and air samples as well as direct liquid injections via syringe or solid phase micro extraction (SPME) fibres.

- Prepless sampling of air, water, solids and trace.
- 24/7 continuous air monitoring.
- Chemical identification with MS/MS confirmation.
- Remote handheld air sampler (X-Sorber).
- Tested to MIL-STD-810G for shock and vibration.
- Source holder for reproducible QC positioning.

## Griffin™ X-Sorber

Designed for the collection and desorption of air samples, the Griffin™ X-Sorber is easy to operate weighing only 3 lbs. This handheld collection system is compatible with the Griffin G460 mobile GC/MS system.

The X-Sorber provides flexible options for a broad range of applications. Users can hand-carry the X-Sorber while sampling, utilise the clip accessory for hands-free operation in the field or employ the 'leave and retrieve' CONOP via programmable collection methods.

- Portable, intrinsically safe, and simple to use.
- Provides legally defensible data with sample time/date stamp and integrated GPS receiver.
- Dual-tube sampling allows for both identification and chain of custody evidence.

## MX908 Handheld Chemical Identifier

The MX908, is a handheld, portable device capable of detecting trace levels of drugs, explosives, chemical warfare agents and hazardous chemicals.

The MX908 uses innovative High-Pressure Mass Spectrometry to perform detection and identification of chemicals, giving high sensitivity and selectivity.

Capable of detecting nanogram/ppb levels of substances, device users can sample exteriors of suspect packages for trace residues, limiting their exposure to the substances inside.

- Fast start up time.
- Analysis in less than 60 seconds.
- Audio and visual alerts.
- Simple user interface.



## MUVE™ C360

The FLIR MUVE C360 is a multi-gas detector completely integrated with an unmanned aerial system (UAS) to provide real-time continuous monitoring of chemical hazards while on the move.

The sensor block boasts 8-channels, which includes a photoionisation detector (PID), Lower Explosive Limit (LEL) detector, and five other electrochemical sensors.

The MUVE C360 sensor block quickly latches to a proprietary integration dock mounted to the UAS. The FLIR calibration station features the same dock, so the operator can easily connect for routine sensor verification. Sensor readouts are prioritised based on alarm conditions and are displayed realtime through the pilot's user interface.

The MUVE C360 is a time-saving, game-changer for emergency responders, industrial safety officers, and environmental monitoring experts.

- Analyse air quality surrounding active scenes prior to entry.
- Select proper PPE before entering scene.
- Locate leak source and track incident progression.
- Cover difficult terrain from the air to assess hazards.
- Quickly draw a perimeter to assess and map hazards.
- Preset alarm thresholds to make quicker decisions on-scene.
- Understand the flow of hazardous vapours at the source, but also in the air.

## Agentase C2

Agentase C2 agent disclosure spray complements electronic sensors by providing the ability to map chemical agent contamination for emergency response missions, as well as aid in the decontamination of personnel or equipment after exposure to CWAs, specifically nerve agents (G- & V-series) and sulphur mustard (HD).

After being sprayed directly onto a surface, the Fido C2 enzymes react by changing colour to red within 5 minutes of detecting CWAs. This colour change reveals the specific location of contamination. The forensic spray is translucent yet allows the threat to be seen under UV-light, a critical feature for covert operations.

- Ability to detect submicrogram (trace) levels of agents.
- Three applicator sizes: handheld, man-portable backpack, and wide-area cart-based system.
- Reveals exact location of agent on surface to reduce decontamination costs.
- Optional fluorescent additive enhances the visual response when used with an ultraviolet (UV) light in poor lighting conditions.
- Rapid response (within 5 minutes).
- Training completed in less than 1 hour.





Fido® X2

Fido X2 is an ultra-lightweight, handheld explosives trace detector (ETD). It features FLIR's proprietary TrueTrace™ technology to detect a broad range of chemicals used in the manufacture of homemade, commercial, and military explosives with best-in-class sensitivity.

- TrueTrace detection in ≤10 seconds.
- Detects broad range of threats.
- Quick three-minute start-up.
- Rapid clear-down in seconds.
- Intuitive, go/no-go alarms.
- On-screen guided operation.
- On-device video training.
- Ultra-lightweight <680 g.
- Reusable sampling swipes.
- No radioactive ionisation source.
- No hazardous chemicals.

Fido® X3

Designed with transportation security in mind, the Fido® X3 is the lightest and most sensitive Handheld Explosives Trace Detector on the market.

Housed in a magnesium case with a splash-proof seal, the Fido's rugged design meets the rigorous MIL-STD 810-G specifications. It has an 8 hour battery, starts from cold in under 5 minutes, and clears in seconds, reducing time waiting and providing more time for sampling.

Adding to the capabilities of the previously fielded Fido® NXT, the Fido® X3 adds broad threat detection including Ammonium Nitrate, TATP, and emerging liquid threats like Hydrogen Peroxide and Nitromethane. Using FLIR's exclusive Sensing Element technology, the detection channels can be controlled to alert on the threat materials you care most about. As new threats emerge, the Fido® X3 will be field upgradable to incorporate new detection chemistries that are specifically designed to detect the new threats.

- Broad Threat Detection – responds to traditional, homemade and liquid explosive threats.
- Can readily identify threat materials by class.
- Weighs under 1.5 kg.
- MILSTD 810 g tested to survive the toughest environments.
- Long-lasting user replaceable 8 hour battery.
- Responds only to the threats you care about.
- Field upgradable potential for detection of new threats.
- Easy to use – simplified Go / No Go interface.
- Provides value-added capability to canine detection efforts.



Fido® X4

Fido X4 is an ultra-lightweight, handheld explosives trace detector (ETD). It features FLIR's proprietary TrueTrace™ technology to detect a broad range of chemicals used in the manufacture of homemade, commercial, and military explosives with best-in-class sensitivity.

- TrueTrace detection in ≤10 seconds.
- Detects broad range of threats.
- Quick three-minute start-up.
- Rapid clear-down in seconds.
- Intuitive, go/no-go alarms.
- On-screen guided operation.
- On-device video training.
- Ultra-lightweight <680 g.
- Reusable sampling swipes.
- No radioactive ionisation source.
- No hazardous chemicals.



Progeny ResQ CQL

A robust, efficient and effective tactical tool for bulk screening of military and civilian explosives, IEDs, precursors, this easy to use handheld device is perfect for collecting data even in the most challenging conditions.

- Eliminates fluorescence interference (1064nm benefit).
- On-board camera (enhance your incident reporting!).
- Automatic precursor warning (4C combination warning of potential precursors).
- Non-visible sample detection (via integrated trace detection colorimetrics – Optional QuickDetect Mode).
- Measure through coloured packaging without sample preparation.
- MIL-STD-810G rugged.
- IP68 rated for easy decontamination.



MX908 Handheld Chemical Identifier

The MX908, is a handheld, portable device capable of detecting trace levels of explosives.

The MX908 uses innovative High-Pressure Mass Spectrometry to perform detection and identification of chemicals, giving high sensitivity and selectivity.

- Fast start up time.
- Analysis in less than 60 seconds.
- Audio and visual alerts.
- Simple user interface.







## BioThreat™ Alert Reader TX Flex

The BioThreat Alert™ Reader TX offers a convenient, easy to use, consistent way of analysing unknown samples for the rapid detection of potential bio-warfare agents.

- Obtains results in less than 30 seconds.
- Handheld, (590 grams).
- Used with the BioThreat Alert Singleplex and Multiplex test strips.

## BioThreat Alert™ Singleplex Test Strips

The best defence option for rapid, on-site screening of unknown biological threats.

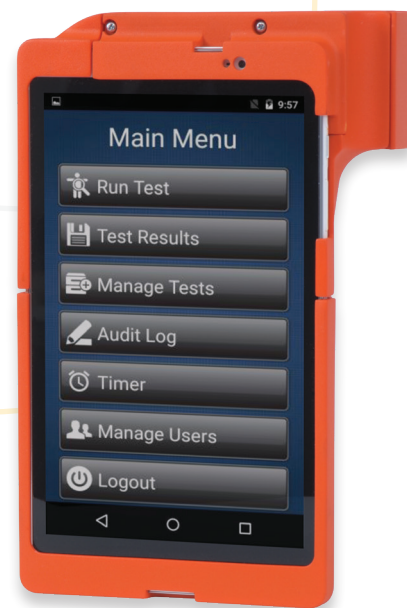
**LFA strips currently available:** Anthrax, Ricin, Botulinum Toxin (A&B), SEB (Staph Enterotoxin B), Abrin, Orthopox, Brucella, Plague and Tularemia.

Proficiency test kits are also available for training.

## BioThreat™ Alert Multiplex Test Strips

The bacterial strip can detect the following: Anthrax, Plague, Tularemia and Burkholderia.

The toxin strip can detect: Ricin, Abrin, SEB (Staphylococcal Enterotoxin B) and Botulinum Toxin A&B.



## C2T Sample Preparation Swab

Tetracore's C2T Sample Preparation Swab is an all-in-one sampling system which is ideal for use by first responders with the BioThreat Alert® strips.

Once a sample has been prepared with the C2T swab, it is suitable to use simultaneously with the BioThreat Alert® strips and the T-COR 8™ Multiplex assay cartridges.

## Tetracore T-COR 8

The Tetracore T-COR 8 Real-Time PCR Thermocycler analyses potential threats for the rapid confirmatory analysis of biothreats and high-impact veterinary diseases. In less than an hour, the T-COR 8 allows first responders in the field or scientists in the lab to confirm the presence or absence of a biothreat.

### T-COR 8™ Polymerase Chain Reaction (PCR) technology

Polymerase chain reaction (PCR) testing is a commonly used technique in molecular biology to identify and quantify bacteria and viruses via amplification of DNA, using thermal cycling to perform the amplification. PCR can be performed in real time (RT-PCR), allowing users to view data whilst it is being acquired.

It is an extremely sensitive technique for biological materials containing a significant quantity of DNA, such as bacteria, making it highly applicable to the detection and identification of biological warfare agents.



## IBAC™2

The IBAC™2 is a continuously operating monitor that provides early warning of biological aerosol threats.

It can operate independently or as part of a network configuration to form the 'first tier' of a building air-security system. In addition to providing real time alerts to biological aerosol threats, it can trigger a secondary aerosol sampler for subsequent identification.

- Rugged design and high sensitivity allow the IBAC to be deployed in severe environments such as HVAC systems and outdoor environments.
- Provides near real time warning capability for biological aerosol threats.
- Government validated with over 125,000 hours of run time in relevant environments.
- Alert can automatically trigger a particular sampler for subsequent identification.
- Operates unattended 24/7 without consumables.
- Complete self-diagnostic system.
- Battery or line powered with up to 16 hour run time per battery charge.
- Easily integrated with most building monitoring and control systems.
- Alert algorithms validated for both indoor and outdoor environments.





# Personal Electronic Dosimeter (PED)

Ideal for users who are not specially trained to measure radiation exposure, the PED family have been specially designed to be easy to use and understand. Encased in weather, shock and drop proof housings each PED features a smooth clean design and simple to use DoseVision™ software.

- Detects X-rays and gamma rays from 33 keV - 1.33 MeV.
- One touch operation.
- Easy to read large Amoled display screen displaying dose rate, accumulated dose and animated silhouette indicating dose received.
- Multiple languages.
- Multiple users.
- Waterproof up to 1 m.

## PED-IS

This intrinsically safe PED is perfect for both radiation specialists and those who do not work with radiation every day. Robust and reliable, it is safe to use in potentially explosive areas, making it ideal for challenging environments.

## PED-Blue

This is the non-intrinsically safe version of the PED-IS. Lighter, it retains the same high quality design and features a direct micro USB connection.

## PED+

An advanced version of the PED-Blue, it can be used as both a PED and a hand held dose rate survey meter. The PED+ has a number of added features, such as Bluetooth, GPS and pop-up message alarms.

## PED-ER

The PED-ER's extended dose rate range of 1 Sv/h (100 R/h) and an energy range of 48 KeV to 3 MeV, provides perfect radiation dosimetry for nuclear medicine environments.

## PED-ER+

Featuring an extended dose rate range of 1 Sv/h (100 R/h) and an energy range of 48 KeV to 3 MeV, the PED-ER+ allows the user to measure radioisotopes which could not have been measured previously. Lightweight, waterproof and compact, the PED-ER+ provides the perfect radiation monitoring solution for those working in challenging environments.



# DMC 3000 / DMC 3000 Personal Electronic Radiation Dosimeter

The DMC 3000 Personal Electronic Radiation Dosimeter features superior gamma and X-ray energy response, programmable alarms with visual LED, audible, and vibrating alarm indicators, simple 2-button navigation, and the ability to be fitted with external modules for expanded capabilities.

The DMC 3000 has a complete line of attachable modules that expand the detection and communications capabilities of the dosimeter these are: DMC 3000 Beta Module, DMC 3000 Neutron Module and DMC 3000 Telemetry Module.

- Designed for ruggedness and durability.
- Loud audible alarms, coupled with ultrabright LEDs and vibration capability.
- Simple 2-button operation and navigation of display options.
- Meets or exceeds applicable IEC and ANSI standards.
- Operates for up to 9 months on a single standard AAA battery.

The add-on PRD Module attaches to the DMC 3000 dosimeter and provides radiation counting information for source and hot spot location assessment, while providing dosimetry protection to the operator. It is powered by the DMC 3000 for over 1000 hours of use.



## AccuRAD™ PRD

A discreet yet robust PRD designed for law enforcement, fire rescue, and other emergency responders to detect and interdict nuclear and radioactive materials. It also provides dose measurement and alarming capabilities for event response.

The AccuRad PRD has your back with best-in-class radiation detection, search and localisation technology, all sealed up in a durable, discreet, easy-to-use device.

- IP67 rated.
- Discreet mode option.
- USB C connectivity.
- NFC and BLE data transmission.
- Smart Phone App available.
- >900hrs battery life.







## identiFINDER R200®

A rugged, pager-sized Spectroscopic Personal Radiation Detector (SPRD), it provides full ANSI N42.32 Personal Radiation Detector (PRD) compliance and features next-generation solid state detector read-out technology that delivers ANSI N42.48 SPRD compliance with nuclide identification.

- Pager-sized and wearable.
- SiPM technology with CsI provides  $\leq 7.5\%$  resolution.
- $\geq 36$ -hour battery life, plus additional 18-hour replaceable battery.
- Internal web server for easy data retrieval.
- Single-hand operation with three-button control.
- Common user interface with other FLIR radiation detectors.
- Crisp, clear display in full sunlight and low light conditions.
- No consumables or user maintenance.
- iOS/Android apps available.
- OneTouch Reachback.
- A neutron option is available.



## identiFINDER R300

Providing the highest detector resolution available in a pager-sized device, the R300 virtually eliminates the false alarms and false positives that are so common to personal radiation detectors.

- Transflective colour display.
- 24 hour battery life.
- IP63 compliant enclosure protection.
- Data storage for up to 600,000 identifications and spectra and over 1 million alarms.
- Designed to meet ANSI N42.48.
- Standard ANSI N42.42 data output format as preferred by triage teams as well as the government and scientific communities.
- Designed and built to meet the most rugged field environments.
- Easy to read display, even in bright sunlight.
- Ease of use in high background environments.
- Highly reliable, accurate results.
- Small enough to be carried on a belt or in a pocket.
- Almost identical user interface with other FLIR radiation detectors.
- No consumables and maintenance intervals of 5 years.
- Configuration and data download through a standard web browser. No need for a dedicated PC software.
- A neutron option is available.



## identiFINDER R400

The R400 is able to rapidly detect, quickly locate, accurately measure and precisely identify gamma emitting radionuclides.

- TFT LCD 64k colour display.
- LED stabilised.
- 12 channel, SIRF III GPS.
- Reachback via Bluetooth® connected to DUN capable cell phone.
- ANSI N42.42 output format.
- Web interface for monitoring and configuring instrument.
- Original three button operation.
- 1GB event data storage.
- Visible, audible and tactile alarm annunciators.
- Embedded windows CE operating system.
- Meets ANSI N42.34 shock conditions.
- A neutron option is available.



## identiFINDER R425

The identiFINDER R425 is a next generation instrument, vastly improving on its predecessor. The R425 uses the same algorithms that have proved themselves in the R400, whilst building and expanding upon its advantages. This new device raises the standard of the modern RIID, and should be at the forefront of a responder's arsenal.

This device comes packed with innovative features, including:

- 2 x 2 NaI Detector – The R425 is 3.5 x more sensitive than other all-purpose RIIDs, whilst including up to 10% superior resolution.
- Sourceless Stabilisation – Automatic stabilisation reduces false positives when taking measurements in the field, improving data collection and decision making.
- IP67-Rated – The R425 is protected from total dust ingress and water immersion, up to 1 meter in depth for 30 minutes. This covers you for rain, splashing and accidental submersion of the device.
- Rugged Construction – Built to survive rigorous use, the device is drop tested to 1 meter and has a fully enclosed crystal. Fully meeting the ANSI N42.34 standard.
- 360° Easyfinder Mode – Easily navigate and respond to threats. The 360° Easyfinder mode collects and interprets data, pinpointing the exact location of a source.
- Wireless Communications – This in-built feature enhances interagency standardisation, improving response options.
- A neutron option is available.





## identiFINDER R440

The identiFINDER R440 is a next generation instrument, vastly improving on its predecessor. The R440 uses the same algorithms that have proved themselves in the R400, whilst building and expanding upon its advantages. This new device raises the standard of the modern RIID, and should be at the forefront of a responder's arsenal.

This device comes packed with innovative features, including:

- 2 x 2 NaI Detector – The R440 is 3.5 x more sensitive than other all-purpose RIIDs, whilst including up to 10% superior resolution.
- Sourceless Stabilisation – Automatic stabilisation reduces false positives when taking measurements in the field, improving data collection and decision making.
- IP67-Rated – The R440 is protected from total dust ingress and water immersion, up to 1 metre in depth for 30 minutes. This covers you for rain, splashing and accidental submersion of the device.
- Rugged Construction – Built to survive rigorous use, the device is drop tested to 1 meter and has a fully encloses crystal. Fully meeting the ANSI N42.34 standard.
- 360° Easyfinder Mode – Easily navigate and respond to threats. The 360° Easyfinder mode collects and interprets data, pinpointing the exact location of a source.
- Wireless Communications – This in-built feature enhances interagency standardisation, improving response options.
- A neutron option is available.

## identiFINDER R500

The identiFINDER R500 is an extremely sensitive and accurate digital hand-held gamma radionuclide identification device (RIID).

Available in two configurations (NaI and LaBr), the R500 is able to quickly detect, rapidly locate, accurately measure and precisely identify sources of contamination from their gamma radiation signature.

- Rapidly determine the primary location of the radiation.
- Identify nuclides in as little as a few seconds.
- Alarms on doserate changes above background.
- Continually stabilises for temperature and other conditional changes.
- Real time visual, audible and tactile alarm annunciators.
- Reach-back via Bluetooth with event data.
- Easy operation with hazmat gloves.
- Radionuclides are labelled as NORM, industrial, medical or SNM.
- Gamma spectrometer functions.
- A neutron option is available.



## SPIR-Ace

The SPIR-Ace is a versatile Radio-Isotope Identifier (RIID), utilising SPIR technology in a compact, user-friendly package. Useful for a variety of applications that require efficient detection and identification of radiological threats. These include security applications, such as civil defence, border & customs. The SPIR-Ace is also useful for obtaining accurate assessments of nuclear materials for nuclear power plants, safeguarding labs, and more.

- Continuous acquisition: dose rate, count rate and detection.
- Multiple specific nuclide libraries depending on application.
- Source searching guidance.
- Enclosure class: IP54.
- Connection to external alpha/beta probe.
- Can be connected to other warning and surveillance devices (e.g. watch, tablet).



## SPIR-Pack

The SPIR-Pack is a backpack device which provides discrete search and identification of radiological and nuclear materials. It is also a powerful tool for mapping of contaminated areas that may be difficult to access by vehicle.

The SPIR-Pack is based on the 'detection by identification' concept, which limits alarms to cases of real threats only while filtering out any false alarms generated by background variation or anomalies such as medical isotopes. It is a high performing system for heavily shielded and complex masking scenarios seen in radiological security endeavours.

- Human portable radiation detection system.
- Real-time mapping.
- Hand-free operation.
- Discrete monitoring in densely populated areas or crowds during events.
- Instant identification of complex scenarios of masking and/or shielding.
- Direct confirmation of the detection and the nature of the threat.
- Expert or simplified mode.
- Information transfer to Smartphone or Tablet PC.
- Remote supervision with SpirVIEW MOBILE or any other installed supervision system.







## SPIR-Ident Mobile

The SPIR-Ident Mobile Platform utilises large advanced gamma spectroscopic detectors, various neutron detection modules and sophisticated algorithms to deliver fast and reliable detection and real-time nuclide identification capabilities for military, homeland security, law enforcement, and environmental applications. It is a modular and scalable system that can be configured for easy deployment in vehicles, compact transportable modules, or in low profile (stealth) configurations.

- Can be powered by a single USB connection from a Laptop computer.
- SPIR View software provides mapping, data reach back and mission replay capabilities.
- Very sensitive nuclear detection and real-time nuclide identification.
- Advanced algorithm for nuclide identification, categorisation into NORM, medical, industrial, and Special Nuclear Materials (SNM), and nuclear threat assessment.
- Post event contamination level mapping.
- Supervision software.



## SPIR-Explorer Sensor

The SPIR-Explorer Sensor allows detection, measurement and identification of radiological sources over a very large range. It is intended to be mounted on demanding carrier, such as UAVs or robots.

It may also be used within fixed or deployable systems. Typical uses are searching for any unexpected radiological sources and checking for radiological risk in case of accident, and mapping of contaminated areas.

Operation is fully automated and results are shown and memorised at an associated radiological base station. The SPIR-Explorer Sensor is using proven technology from the 'SPIR-Ident' and 'SPIR-ID' product family in a much smaller and lighter form factor.

- Real-time, instant detection, measurement and identification.
- Wide dose rate range: from natural background to high accident levels.
- Light and robust.
- Simple and fully automated use.



## SPIR-Ident Vehicle and Pedestrian Portal

The SPIR-Ident Vehicle and Pedestrian is a gamma and neutron spectrometric portal. It is intended for dynamic detection and identification mode for protecting sites and critical infrastructure from the intrusion of special nuclear materials (SNM) or radiological dispersion devices (RDD) by controlling pedestrian, luggage, small items, parcels and vehicles. It can be configured for use with occupancy detector or ancillary cameras to provide a complete protection solution.

- Gamma and neutron detectors.
- Dynamic pass through mode.
- Effective real-time Medical and NORM rejection.
- Single, double sided and multiple pillars for passage ways.
- Masked and shielded SNM and RDD identification.
- Automated operation with full camera support.
- 'Easy' display and advanced modes.
- Automated log with spectrum and image capture.
- Masked and shielded SNM and RDD identification.







## Guardian RPM Radiation Portal Monitor

A customisable system for vehicle and freight radiation monitoring.

- Permits throughput speeds up to 20 mph (30 kph).
- Gamma and neutron sensitive.
- NORM discrimination.
- Very low false alarm rate (1:15,000 typical).
- Fully digital systems design.



## TSA VM250 Automatic Vehicular Traffic Screener

The TSA VM250 automatically screens vehicular traffic without the need for frequent calibration.

High sensitivity allows the VM250 to be used at locations such as uranium enrichment plants, weapons manufacturing and storage plants, nuclear laboratories, and nuclear waste disposal and storage sites where detection of Special Nuclear Materials (SNM) is essential. The VM250 is designed for use in harsh environmental conditions.

- Portal monitor for vehicles.
- Continuously screens moving traffic.
- High throughput.
- Cost effective.

## TSA PM700 Portal Monitor

The PM-700AG's large detectors and unique detection algorithm improve its performance to the point that it can achieve ASTM Standard C 1169 Category III sensitivity for SNM (special nuclear materials).

All of the essential components are contained in the pillars: radiation monitors / detectors, controller, occupancy detector. The system operates from an internal battery which is constantly charged from the site's ac line during normal operation. In the event of a power outage, the battery permits continued operation for at least 12 hours.

The PM-700AGN adds neutron detection capability to the basic PM-700AG. Both models are equipped with RS-232 and Ethernet communications capability.

- Designed to automatically scan pedestrian traffic without the need for frequent calibration.
- Intended for applications where the relatively low energy emissions from  $^{235}\text{U}$  and  $^{239}\text{Pu}$  are the main concern.
- Currently in use at uranium enrichment plants, weapons manufacturing plants, weapons storage sites, nuclear laboratories, nuclear waste disposal, and storage sites where protection of SNM is essential.





## Service and Support

Southern Scientific has a team of fully qualified service engineers, who support customers spanning the length and breadth of the UK. We can provide factory or on-site service as required, based on single visits, planned maintenance or full support under contract. We maintain a high level of spare parts, ensuring lifetime support capability.

Our systems group can offer its service for the larger installed equipment, from initial planning to installation, completion and training. We can provide expert knowledge and experience, gained through involvement in a number of large-scale projects throughout the years.

## Validation Services

Southern Scientific Ltd is certified to ISO9001 and ISO 13485 representing the high level of quality assurance and management that we provide at every stage of the supply process, whether a product is distributed on behalf of our trusted manufacturers or constructed in our UK workshop. This accreditation means that our customers can place an order knowing that the delivered product will be suitable for its intended use, fully compliant with EU legislation and in full working order.

All our products are CE marked.

### **Southern Scientific Limited**

Scientific House, The Henfield Business Park  
Shoreham Road, Henfield, BN5 9SL, UK

**E-mail:** [info@southernscientific.co.uk](mailto:info@southernscientific.co.uk)

**Tel:** +44 (0)1273 497600

**Fax:** +44 (0)1273 497626

[www.southernscientific.co.uk](http://www.southernscientific.co.uk)

