A LabLogic Company

Monitoring and Analytical Equipment

for Health Physics

www.southernscientific.co.uk

southern scientific
EXPERIENCE & EXPERTISE

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Radhound Multi-purpose Digital Radiation Meter

A multi-purpose digital radiation survey meter suitable for all your contamination monitoring and radiation protection requirements, the Radhound is a cost effective, feature packed digital radiation monitor that is simple and easy to use.

Count rate is displayed in large clear numbers and also on a bar scale. Our smart averaging software means a steady display that can be read with confidence, yet provides a fast response.

For source finding, one button push changes the display to a histogram plot. Alpha and Beta/Gamma counts can be displayed separately or on the same screen.

For surveying operations the Radhound also has an integrator mode.

- Clear digital LCD display with backlight.
- GM and scintillation detector options.
- Scaler timer function.
- Ergonomic tilt stand.
- Wall mountable.
- Fully adjustable alarm levels.

Radhound X/E and X/I

The Radhound X/E is an advanced hand-held general purpose radiation monitor, suitable for a wide range of probes. The X/I is a Radhound X with an internal dose rate detector.

This feature-packed instrument boasts some unique features, such as the ability to switch between probes via the menu allowing, for example, a dose rate probe and a contamination probe to be configured for use with one instrument. This flexibility allows any standard probe to be used (300 - 1200 V).

- Clear digital LCD display with backlight.
- GM and scintillation detector options.
- Fully adjustable alarm levels.
- Scaler timer function.
- Peak mode.
- Over range.
- Multiple probe library/configuration.

Portable Radiation Monitoring

Handhound Voice Activated Monitor

Designed for use in 'wet-chemistry' radio-isotope handling situations where hands could be contaminated, the mains-operated Handhound voice activated monitor is an ideal solution.

The background is updated whilst the unit is not in use. A proximity sensor ensures the user's hands are underneath the detector, the user then speaks his/her name and says 'continue' to begin the process. The system will then begin counting for a predetermined period which can be set by the supervisor.

A touchscreen interface is also incorporated to allow configuration and manual triggering if needed.

- Entirely voice operated to avoid instrument contamination.
- Sensitive scintillation counter for gamma emitters.
- Automatic background updates.
- Fixed or dynamic alarm thresholds.
- Alternative detector options covering wide range of nuclides.
- Stainless steel housing for ease of cleaning and decontamination.
- Automatic record keeping against user names, to aid with HSE compliance.
- Touch-screen compatibility included as an alternative to voice operation.
- Data can be downloaded onto USB.

Radhound Alarm

A low cost digital area monitor available with a range of probe options for all your contamination monitoring and radiation protection requirements.

The Radhound Alarm has a large digital display, the option for mains or battery operation and can be easily wall mounted. The easy to use password protected configuration menu enables a choice of probe and alarm thresholds to be setup.

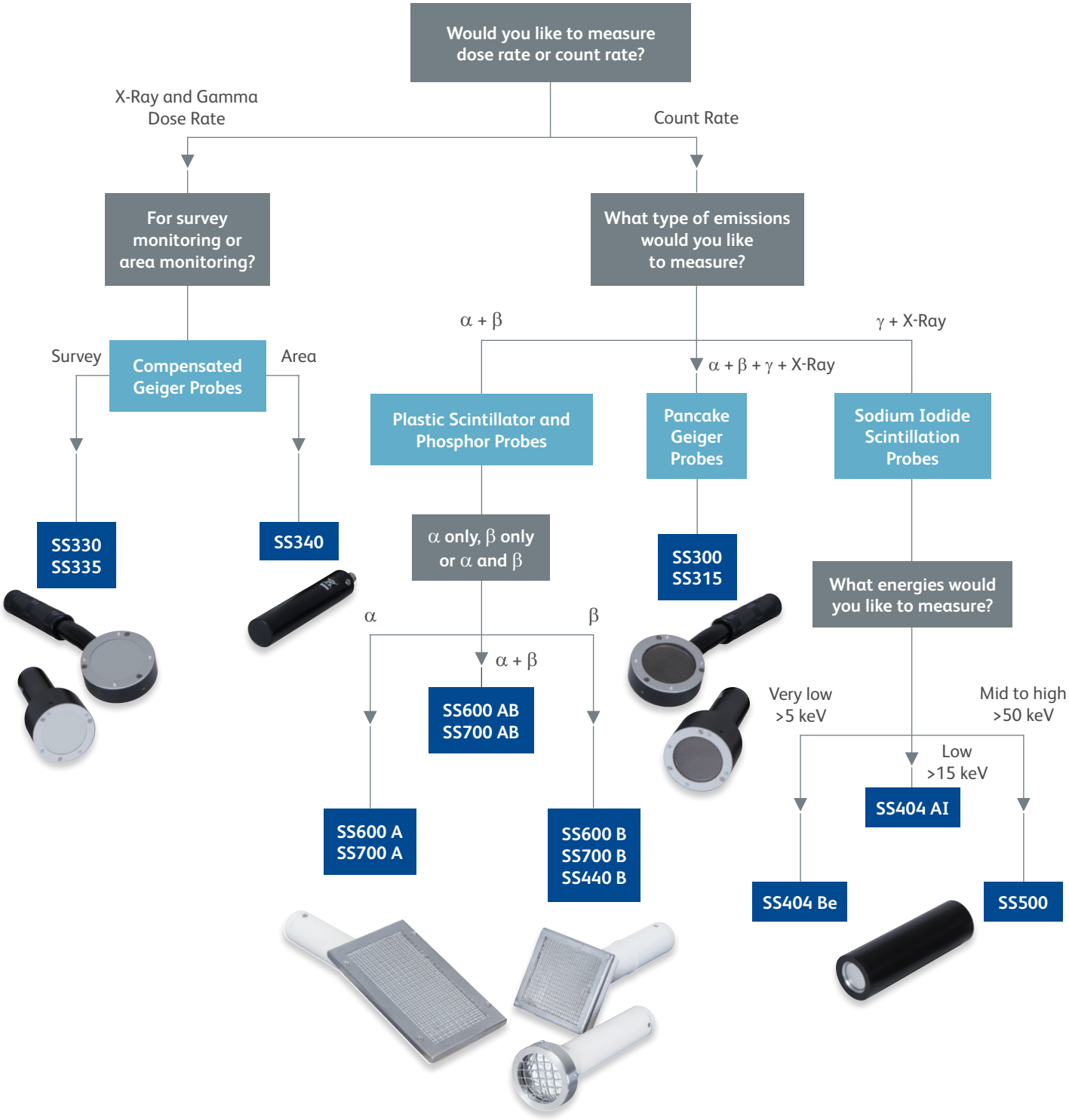
Alarm output is provided by remotely mounted audio sounder and visual beacon.

- Simple to operate.
- Programmable alarm threshold.
- Audible count rate (with on/off switch).

Radhound Probe Guide

All Radhound monitors are compatible with a range of probes to meet your detection requirements.

Southern Scientific supply a selection of probes with a variety of different detectors. Use the guide below to determine which probe (or probes) is best for you, or call to speak with one of our product specialists.



We have other styles of radiation monitor available.

Automess 6150 AD Series

An easy to use survey meter, the Automess 6150 AD can be used as a stand-alone survey meter or with a wide range of smart probes to cover a number of applications.

- Built-in compensated GM counter.
- Automatically recognises and calibrates to any smart probe in the Automess range.
- Displays both dose and dose rate.
- Programmable dose and dose rate alarm.
- Non-volatile dose memory (data is not lost if switched off).
- Display range and units adjusted automatically.
- Battery life: 1,000 service hours approx.
- PTB and GSF approved (recognised by HPA).
- Sturdy, waterproof aluminium die cast housing.
- Intrinsically safe available.
- Connects to PC for real time transfer of measurements.

6150 AD 5	2 µSv/hr - 10 mSv/hr, 45 keV - 2.6 MeV
6150 AD 6	200 µSv/hr - 1 Sv/hr, 60 keV - 1.3 MeV

Automess 6150 AD-B Probe

A high sensitivity dose rate scintillation probe.

- High sensitivity, down to 5 nSv/hr.
- ∅ 7.62 x 7.62 cm (3" x 3") plastic scintillator.
- Wide energy range: 23 kEV - 7 MeV.

Automess 6150 AD 5-Ex Dose Rate Meter and 18-Ex Low Dose Rate Probe

An intrinsically safe dose rate meter for use in potentially explosive atmospheres.

- Complies with ATEX 100A directive.
- Wide dose rate range.
- Easy to use.
- Use alone or with separate 6150 AD 18-Ex probe.
- Suitable for the oil and gas industry.

Automess 6150 AD-15 and 18 Probes

High and low dose rate gamma probes.

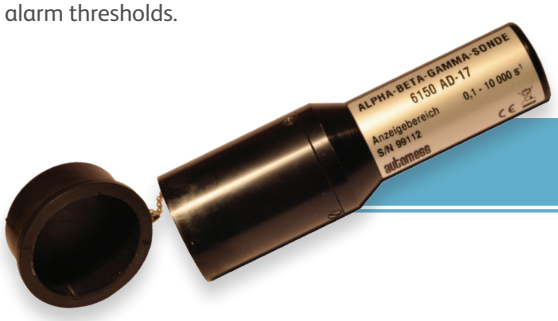
- GM tubes.
- Water resistant.
- Intrinsically safe version available.
- Energy range: 65 keV - 1.3 MeV

Model	Dose Rate Range
6150 AD-15	1 mSv/hr - 10 Sv/hr
6150 AD-18	2 µSv/hr - 10 mSv/hr

Automess 6150 AD-K Surface Contamination Monitor

A compact, light and manoeuvrable surface and floor monitor.

- Sealed proportional detector.
- 100 cm^2 active area.
- Switch for alpha, beta and gamma counting.
- Alpha and alpha/beta gamma discrimination.
- Microprocessor controlled compensation of detector.
- Automatic range switching.
- View count rate, average count rate, max. count rate or accumulated number of pulses.
- Settable alarm thresholds.



Automess 6150 AD-17 Probe

For alpha, beta and gamma contamination measurement.

- End window GM.
- Suitable for low intensity X-ray or gamma radiation.

Automess 6112M Teletector

A stand-alone telescopic detector with built-in digital analogue display.

- Gamma and beta detection.
- Automatically switches between 2 GM tubes to cover wide dose range of 2 µSv/hr - 10 Sv/hr (up to 10 mSv/hr (beta)).
- Extends to 4.12 m.

T401 and T403 Contamination Monitors

Designed to meet the challenge of combining operational reliability with excellent sensitivity the T401 offers a range of features including direct surface, peak and background readings. The T401 can be used one-handed, or detach the probe for two-handed operation.

The T403 is identical to the T401 except that its detector probe is attached to 10 metres of cable, allowing the monitor to be used to survey ceilings, chimneys, behind instruments, and other hard to reach areas.

Both monitors can be supplied with an extension pole kit to securely deploy the detector probe during monitoring operations.

- Dual bar graph meter display 0 - 1000 cps.
- Digital numeric display with automatic direct translation to Bq/cm^2 for 14+ pre-programmed nuclides (natural and man-made) including C-14, P-32, Cs-137.
- Optional extension arm.
- Detachable probe.
- Background reading and storage.
- Audible response with adjustable alarm thresholds.

T402 and T406 Dose Rate and X-ray Monitors

The T402 and T406 are lightweight, yet robust and comfortable to use over extended periods.

- T402 detects gamma and X-rays from 60 keV - 1.33 MeV.
- T406 detects gamma and X-rays from 17 keV - 1.33 MeV.
- Digital bar graph display: 0.1 - 1000 µSv/h.
- Digital dose rate indication: 0 - 10,000 µSv/h.
- Peak dose rate memory – allows maximum exposure levels to be recorded.
- Accumulated dose rate memory – for risk assessment and total exposure.
- Audible response with adjustable alarm thresholds.
- Water-resistant so easy to clean and decontaminate.
- Shock and drop tested so highly durable.

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.

DoseRAE II

A solid-state dosimeter for a huge range of x-ray and gamma applications the DoseRAE II make use of both a PIN diode and CsI crystal to provide a fast responding doserate display, ensuring users can react quickly in dangerous situations.

- Wide dose rate range H*(10): 10 µSv/hr - 10 Sv/hr.
- Broad energy range: 20 keV - 6 MeV.
- Onboard memory for up to 3,000 measurements.
- Long life: 200 hours operation between battery charges.
- Discrete: Small unit, weighing less than 50 g.
- Standard package including Charging cradle, USB connector and ProRAE Configuration and Data Management software.

identiFINDER R200®

A rugged, pager-sized Spectroscopic Personal Radiation Detector (SPRD), the R200 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 ≤ 7.5% resolution.
- Single-hand operation with three-button control.
- ≥ 36-hour battery life, plus additional 18-hour replaceable battery.
- Internal web server for easy data retrieval.
- OneTouch Reachback.

identiFINDER R300

The mobile phone sized identiFINDER R300 uses high quality ZT crystals to locate and characterise a nuclear threat. Secured in an IP63 rated rubberised housing this instrument provides rugged and reliable performance in the field.

- Reliable identification – significantly higher resolution than NaI(Tl) and $LaBr_3$ < 3.5% at 662 keV.
- Intrinsically stable technology – no temperature stabilisation required.
- Easy to use a simple and intuitive interface.
- Reachback technology – transmit spectra from the field for remote analysis and advice.
- Up to 24 hours use between battery charges.

identiFINDER R400

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

- LED stabilised.
- 12 channel, SIRF III GPS.
- Reachback via Bluetooth® connected to DUN capable cell phone.
- 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.

Tritium Condenser

An innovative tritium sampler which produces results in less than 40 minutes.

The H3R7000 collects vapour form tritium by cryogenic condensation. The sample obtained can be measured down to a detection limit of 0.01 Bq/m^2 by liquid scintillation counting.

- 100% trapping of tritium vapour.
- Fast trapping allows close to real time monitoring.
- Transportable and easy to use.

Tritium Sampler

A vapour and gaseous form tritium sampling device from SDEC.

Perfect for measuring low levels of tritium in air, the Marc7000 collects tritium vapour from the air stream by bubbling in water in the first two vials, then the gaseous tritium is oxidised in a catalytic oven and trapped by bubbling in the last two vials.

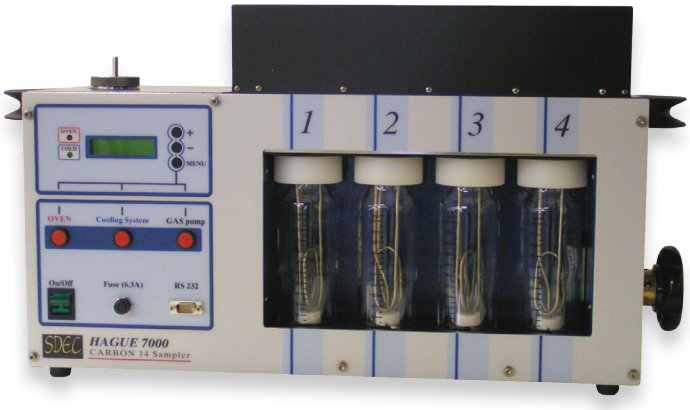
- Excellent trapping efficiency.
- Oxidation of gaseous tritium using catalytic oven.
- Cooling system to reduce sample evaporation.
- Connectable to all sampling lines for stack or hood monitoring.

C14 Sampler

A gaseous and organic form C14 sampling device from SDEC.

CO_2 is trapped in a sodium hydroxide solution, then CO and organic carbon is oxidised in the catalytic oven and collected in a second set of vials. The sample can then be analysed to determine C14 concentration.

- Excellent trapping efficiency (close to 99%).
- Oxidation of CO and organic carbon using catalytic oven.
- Cooling system to reduce sample evaporation.
- Connectable to all sampling lines. for stack or hood monitoring.



Portable Radiation Monitoring

Brushless Air Sampler

A portable, maintenance free, high volume brushless air sampler from Hi-Q.

Available in three models, 1001 (60 - 230 LPM), 1002 (250 - 800 LPM), and 1003 (400 - 1400 LPM), the CF 1000 series offers variable speed operation for continuous or intermittent sampling.

- Maintenance free brushless motors.
- Weighs less than 5 kg.
- Adjustable flow rate.
- Digital display of flow rate and total volume, as well as minimum and maximum flow.
- Elapsed, resettable electronic timer.
- 230 V AC or 115 V AC options.

Various sizes of filter paper and cartridge holders are available for the Hi-Q air samplers, as well as kinetic impactor heads, hoses, tripods and calibrators.

Mobile Air Sampling System

Hi-Q's continuous duty, constant flow, air sampling system.

- 196 LPM maximum flow rate.
- Telescopic 'gooseneck' for breathing zone sampling.
- Automatic flow control valve.
- Elapsed, resettable electronic timer.
- Dual vacuum gauges for measuring across filter media.
- Sturdy frame.
- Weatherproof housing available.

High Volume Air Sampler

The Hi-Q CF 900 Series High Volume Air Sampler is ideal for radio-iodine, particulate and continuous duty air sampling.

Available in three models, 901 (60 - 340 LPM), 902 (150 - 1000 LPM), and 903 (300 - 1400 LPM).

- Manually adjustable flow rate.
- Weighs less than 5 kg.
- Rugged housing.
- Range of filter holders.
- Digital option for flow rate and total volume.
- 230 V AC or 115 V AC options.

BAB-A7

The BAB-A7 mobile aerosol beacon is used in nuclear facilities for a continuous control of atmospheric air contamination by dust exposed to natural Radon and Thoron radioactivity and ambient gamma radiation.

It is specially designed for work station monitoring during maintenance operations or in dismantling work sites, where man-made noise immunity is highly recommended.

It includes a recording function for a better measurement traceability, and a local graphic display of volume activities.

For external irradiation radiological monitoring, an ambient gamma dose rate measurement deported probe (optional) can be coupled to the beacon.

Gamma Tracer

With the autonomous radiation monitoring probe GammaTRACER the gamma radiation dose is continually registered in the chosen time sequence.

Available types – BASIC, WIDE, HIGH and XL differ mainly for the counter tubes. They cover a broad range of applications, are lightweight and therefore ideally suited for both, mobile and stationary tasks.

GammaTRACER XL incorporates a high-volume GM-tube, which qualifies it for applications requiring high sensitivity.

Energy-saving chip technology allow maintenance-free non-stop operation of the GammaTRACER probe of typically five years, with extended battery pack up to ten years!

Hermetically closed, it is designed to endure the harshest environments.

Equipped with a radio module, the probes can be used with SkyLINK and ShortLINK systems to offer a new dimension in wireless data collection.

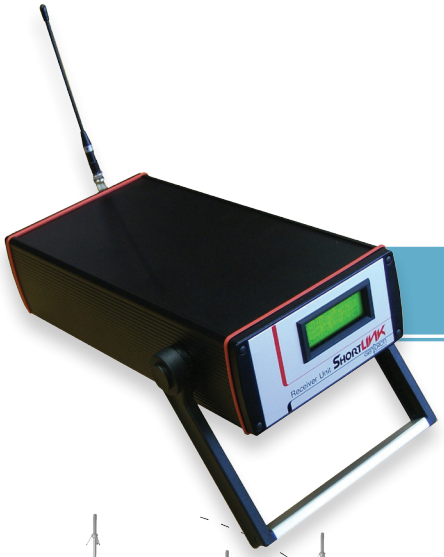
- Low power electronics allows operation from battery power for up to 10 years, removing the need for mains supply.
- Can transmit via wired connection, UHF radio, GSM, GPRS or ISDN.

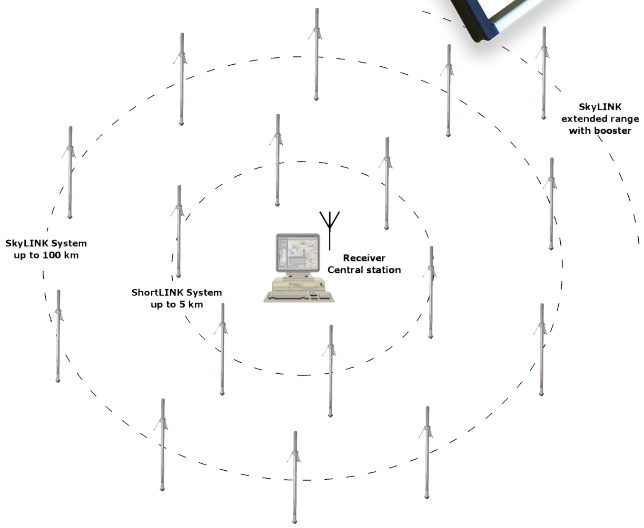
Portable Radiation Monitoring

Mini Trace

A personal networked radiation detector, small enough to be worn on the belt, the MiniTRACE can measure, store and transmit dose rate readings up to 20 km as part of a wireless network.

- GPS to allow both the position and local dose rate to be tracked for each member of personnel.
- Works alongside the ShortLINK system.



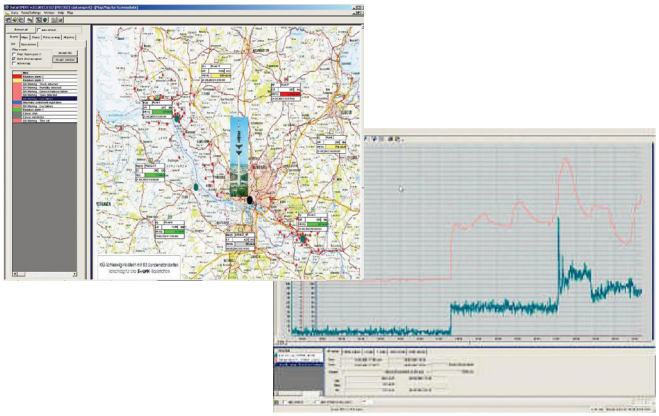


Shortlink / Skylink

ShortLINK/SkyLINK systems allow the wireless transfer of measured data across distances of between 5 and 100 km via UHF radio transmission.

They are used worldwide as part of emergency and routine radiological monitoring networks.

- Probes deployed or installed in the field, such as the Gamma TRACER, collect and transmit readings in real time. The ShortLINK or SkyLINK receiver assimilates this data and passes it to a central monitoring terminal.
- The wireless transmission is unidirectional and highly reliable, and has been proven to have a high tolerance to electromagnetic interference. It offers a flexible, convenient and simple way to monitor over long distances with no cabling.



Data Expert

DataEXPERT is an advanced data logging, visualisation and analysis software package that forms the backbone of Saphymo monitoring networks.

It displays and plots the real time readings from all probes in the network, maps the probe positions and flags up any alarms. It can export readings as necessary and is able to interface with SQL databases for maximum flexibility.

Vehicle/Rail Portal

The Nucsafe Advanced Radiation Control System (ARCS) is designed for the steel, aluminium and scrap metal industries, and nuclear power power plants, to monitor all vehicles entering or exiting a controlled area.

- High sensitivity.
- Very effective detection algorithms and patented Threat Matrix.
- Customisable configuration to suit any sensitivity or budgetary requirement.
- Gamma and/or neutron sensitive.
- NORM discrimination.
- Very low false alram rate (1:15,000).
- Source location profile.
- Clear, user-friendly interface.
- Robust and rugged.
- Easy maintenance, modular construction.
- Operate at speeds up to 20 mph (30 kph).
- Complete date logging.
- Optional ANPR (Automatic Number Plate Recognition).
- Remote monitoring for reach back and maintenance.
- Battery backup > 3 hrs (optional).

Advanced Pedestrian Portal

For the efficient screening of personnel.

- Operates at walking speeds up to 5 mph (8 kph).
- Gamma and neutron sensitive.
- Very low false alarm rate (1:50,000).
- Remote monitoring capability.
- Windows based software.
- Minimises nuisance alarms from medical patients.
- Multiple portals monitored on a single PC.
- Battery backup > 3 hours (optional).
- Overview camera (optional).
- Video of alarms (optional).
- Isotope identification (optional).

Hidex 300 SL Liquid Scintillation Counter

The Hidex 300 SL is the most advanced and user-friendly liquid scintillation counter available.

Employing Triple to Double Coincidence Ratio (TDCR) counting, the 300 SL provides instant DPM results without the need for any internal or external standards.

It is completely controlled from an external PC and is Windows 8 compatible. With the easy to use yet sophisticated MikroWin program, you can store unlimited number of protocols and have automatic data export to Excel or other LIMS. The software also provides options for 21 CFR Part 11 compliance and extensive data reduction features such as quench curve analysis, IC/EC 50 value calculations etc.

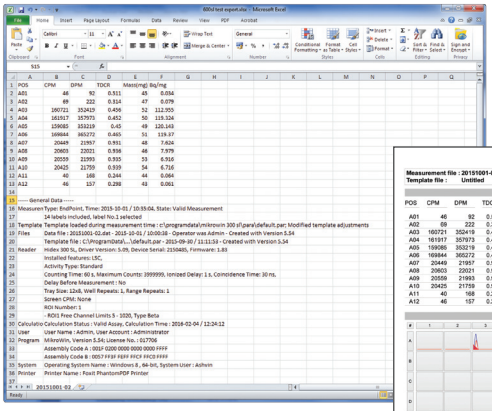
- Alpha/Beta separation capability.

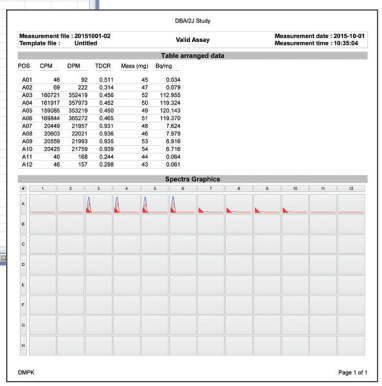
Hidex 600 SL Liquid Scintillation Counter

Designed to meet the needs of laboratories processing large quantities of samples, the Hidex 600 SL is a high throughput automatic TDCR liquid scintillation counter.

The Hidex 600 SL uses the robust and unique triple-to-double coincidence ratio (TDCR) counting technology from the successful 300 SL series. Coupled with added sample capacity for up to 500 small vials (or 210 large vials), the 600 SL can process samples at a rate which will satisfy even the most demanding laboratories.

The instrument's software allows the user to work with an unlimited number of method files. Methods are barcode identified for automatic processing. Data files can be automatically exported in Excel,® csv or text for integration into LIM systems.





The Hidex 600 SL is available with all the options of the standard model, such as powerful alpha/beta separation, low level PMT detectors, cooling unit, and internal Eu-152 reference source.

Hidex Triathler

Triathler is a compact and portable single-well instrument that provides instant results for both liquid scintillation and gamma counting.

The Triathler has preset keys for H-3, C-14, I-125, Cs-137, Rn-222 and many others. The on-board memory allows for data storage and export when not connected to a PC. The Triathler's software allows for advanced spectrum analysis, report generation, remote operation, and is Windows 8 compatible.

- Easy to use keypad and LCD readout.
- In-field operation via battery pack or vehicle power adapter.
- Alpha/Beta separation capability.
- Optional external NaI well detector.

Hidex Sense Microplate Reader

An application ready high performance multi-mode microplate reader which uniquely combines liquid scintillation, beta and gamma counting, high sensitivity luminescence and all common non-radioactive detection technologies including special photometric detection into one very compact instrument.

Hidex AMG Automatic Gamma Counter

The Hidex AMG Automatic Gamma Counter is specifically designed to meet the needs of modern Nuclear Medicine, PET and environmental laboratories.

With touchscreen interface and application focused design it guarantees effortless work flow and results simply at your fingertips.

- Sophisticated radiation protection.
- All results, raw data and calculated data are exported directly at the touch of a button.
- Optional features including a sample balance (4 decimal), foot pedal for decay time correction and a barcode reader.

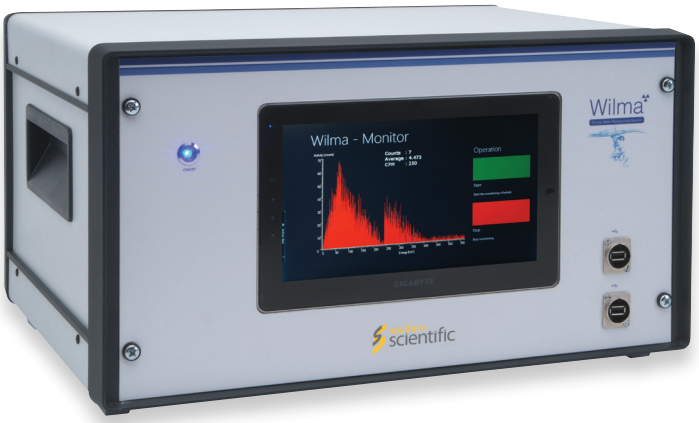
Wilma On-Line Water Radioactivity Monitor

Wilma is a fully automated, on-line water monitoring system for the detection of radioactivity

The instrument utilises a novel approach to streamline the time consuming process of sample collection and preparation traditionally required for detecting alpha and beta contamination in water via liquid scintillation counting.

Wilma is ideal for simplifying a range of applications which require routine sampling, including:

- Ground water contamination monitoring.
- Monitoring tritium levels in cooling water.
- Quasi real-time monitoring of drinking water.



Ground Water Monitoring System

The Wilma Ground Water Monitoring System combines the proven Wilma fluid handling and LSC modules with additional pumping and sensing capabilities to manage the extraction and characterisation of ground water samples at the source. The system can be configured for remote measurements and transmit data via a secure wireless network. Ideal for campaign-based measurements, the system is mounted inside a rugged IP65-rated enclosure for all-weather protection.

Tritium in Air Monitoring System

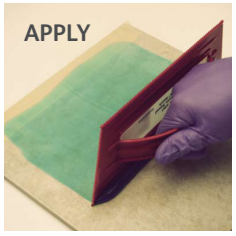
The Wilma Tritium in Air Monitoring System utilises the configurable Wilma fluid handling and LSC detector to automate the operation of a tritium bubbler. The customised software includes cycles to sample water in the bottles, as well as emptying, washing and refilling them as part of the standard operating procedure. This application allows long-term, remote monitoring of tritium in air levels down to less than 10 Bq/m^3, ideal for monitoring in isolated locations or areas where access is difficult.

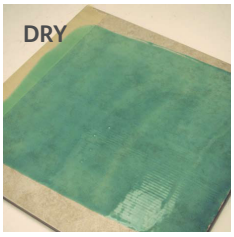
Decontamination Gel

A range of easily peelable decontamination gels to suit all applications. Effective on a vast range of smooth and porous surfaces, encapsulating and removing up to 99% of loose and fixed contamination.

- In addition to industrial decontamination, the gels can be used to fix contamination or to form a protective barrier.
- Extensively used to recommission contaminated instruments and glove boxes.
- Film can be analysed in a laboratory afterwards by HPGe or LSC.
- Cleaner, more effective and safer than alternative decontamination methods.
- Minimises contaminated waste output.

Type 1101, 1108 and 1102





Type 1120, 1121 and 1128

Bind-It™

Bind-It™ Decontamination Fluid is the safe and highly effective way to remove Tc99m, radioactive iodine and other common nuclear medicine isotopes.

- Unique formula binds the isotopes and suspends them in solution so that they can be easily wiped away.
- Safe for use on delicate well counter detectors, thyroid probes, survey meters and gamma camera heads.
- Available as a concentrated cleaner, ready-to-use spray and a hand soap, all in convenient 237 ml and 946 ml sizes.

Decontamination & Consumables

Scintillation Vials

A range of low background glass vials, plastic vials and miniature vials for liquid scintillation counting applications.

Shielding and Storage

A range of lead acrylic bench top shields and storage boxes for providing protection from low energy gamma emitters such as Iodine-125.

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.

ISO Certified

Southern Scientific Ltd is certified to ISO9001:2008, ISO 13485:2003 and EN ISO 13485:2012 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

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