

# Instruments and Consumables

for Academic Research Applications



## Portable Radiation Monitoring

Radhound Multi-purpose Digital Radiation Meter .....	3
Radhound X/E and X/I .....	3
Handhound Voice Activated Monitor .....	4
Radhound Alarm .....	4
Probes .....	5
Tracerco PED .....	6
DoseRAE II .....	6



## Decontamination

DeconGel .....	7
Bind-It .....	7



## Lab Based Systems

Hidex 300 SL Liquid Scintillation Counter .....	8
Hidex Triathler .....	8
Hidex AMG Automatic Gamma Counter .....	9
Hidex Sense Microplate Reader .....	9
Eljen Scintillation Detectors .....	10
BNC 575 Digital Pulse Generator .....	10
BNC 725 Multi-Trigger Digital Delay Generator .....	10



## Modular Electronics

Powered Crates .....	11
Modules .....	11
Power Supplies, Parts and Accessories .....	11



## 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 logarithmic bar scale.

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, compatible with 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.
- Multiple probe library/configuration.





# 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.

- Clear digital LCD display with backlight.
- Simple to operate.
- Clear alarm/fault indication.
- Fully adjustable alarm levels.

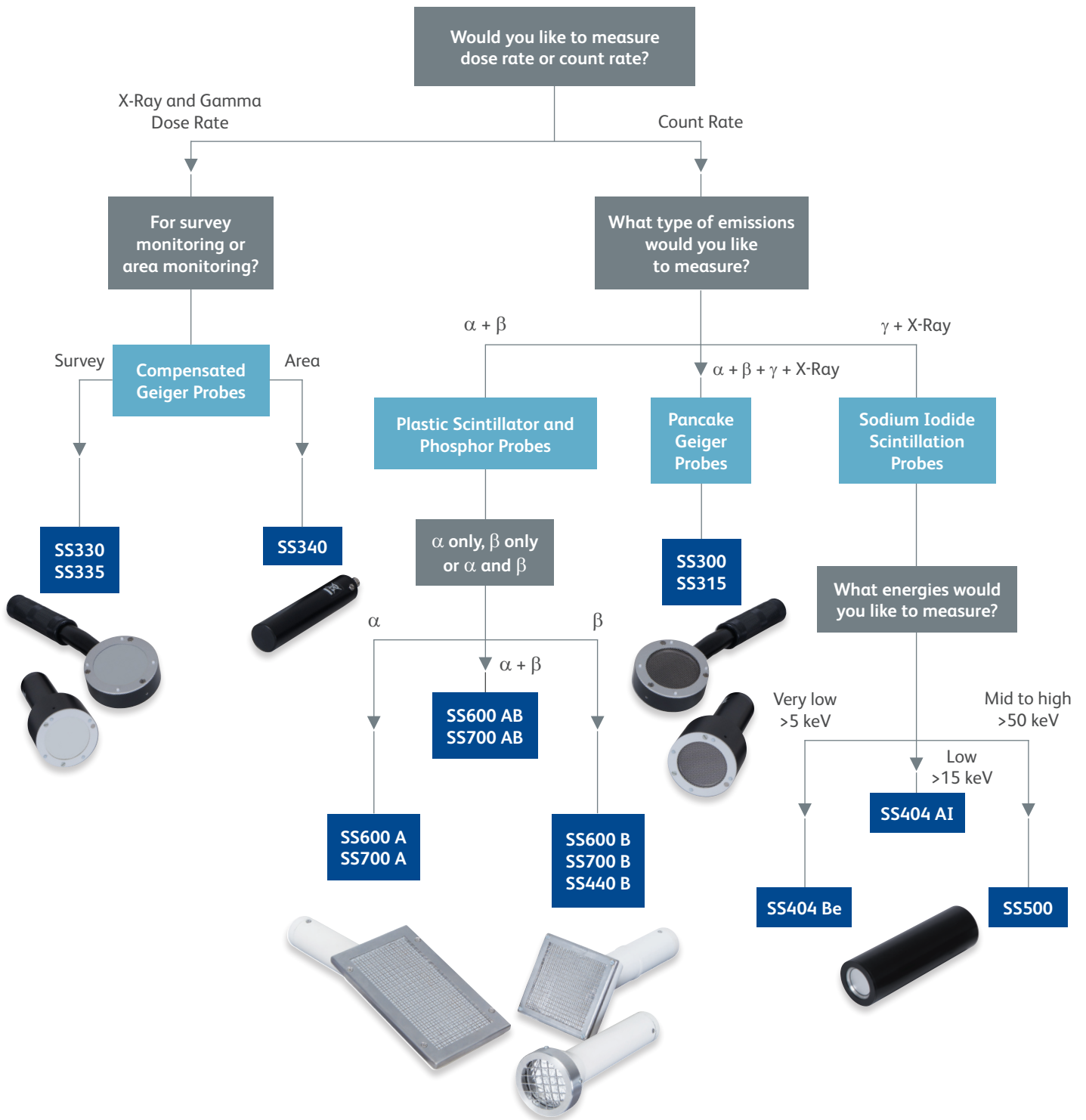




## Probes

All our radiation 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.



## 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.

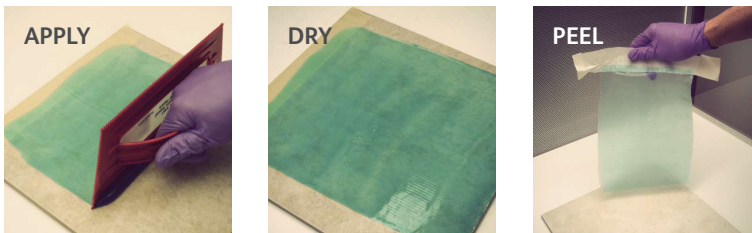
## Decontamination Gel

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.

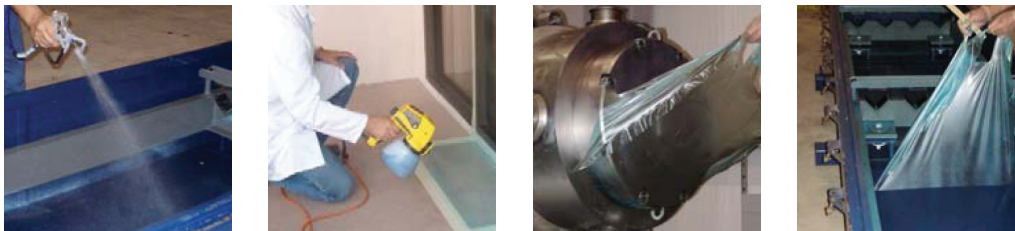
- In addition to industrial decontamination, the gels can be used to fix contamination or to form a protective barrier.
- Extensively used to recommission contaminated instruments and glove boxes.
- Film can be analysed in a laboratory afterwards by HPGe or LSC.
- Cleaner, more effective and safer than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





## 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 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.

- Compact and transportable.
- User friendly software.
- Unique TDCR technology.
- No reference source required.



## 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 H3, C14, I125, Cs137, Rn222 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.
- Totally portable.
- User friendly software.
- Flexible parameters.
- In-field operation via battery pack or vehicle power adapter.
- Optional external NaI well detector for gamma counting.

## Hidex AMG Automatic Gamma Counter

The new 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.

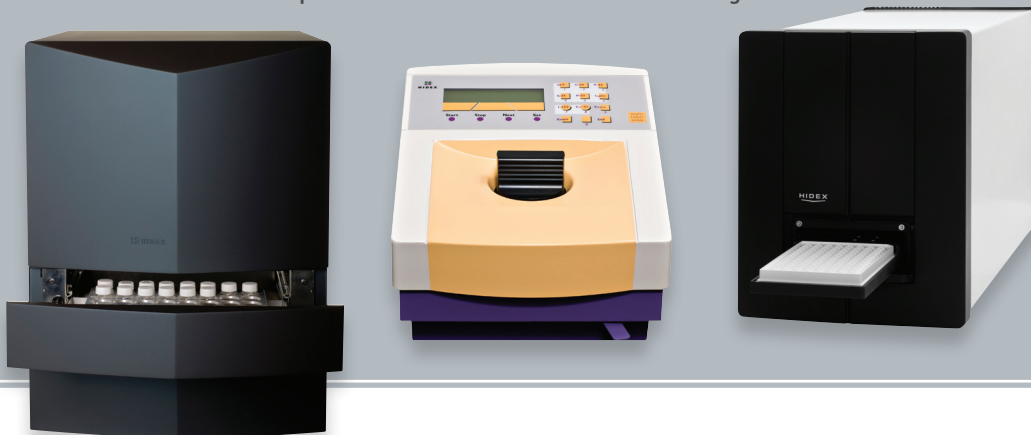


## Hidex Sense Microplate Reader

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.

## FREE Starter Pack

Receive a FREE consumables starter pack when you purchase a scintillation counter from LabLogic.

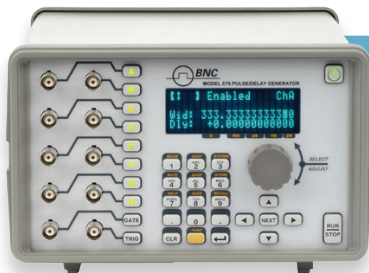
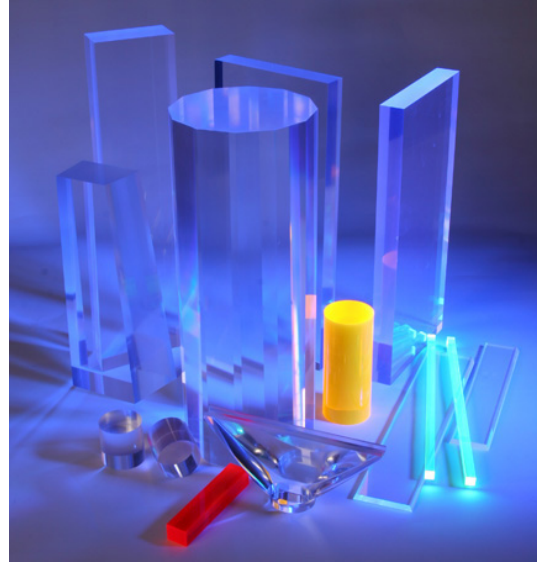


## Eljen Technology Scintillation Detectors

**Inorganic and organic scintillators to meet practically any requirement for photon and particle detection.**

Manufactured by Eljen Technology, one of the world leaders in the development and manufacture of organic plastic scintillation material their product range encompasses cast plastic scintillators, liquid scintillators, and reflective paints and glues.

- Extensive range of scintillation plastics, selectable for attenuation length, reponse time, decay time, emission wavelength and capture efficiency.
- Liquid scintillants, each loaded to provide specific attributes, such as high light yield, spectrometry, preferential neutron capture or neutrino capture, low flash point and pulse shape discrimination.
- Scintillation, waveshifting and reflective paints.
- All associated extras, including optimal cement, silicone grease, protective adhesive tape and mylar are also available.
- Standard sizes and bespoke solutions available.
- Plastics can be provided with all common connectors: 12 pin, 14 pin, MHV, SHV and BNC.



## BNC 575 Digital Pulse Generator

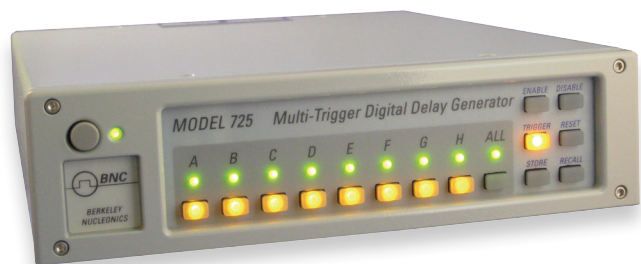
A versatile unit from BNC with trigger, gate, delay, pulse and sync capabilities.

- Accurate timing with minimal error. 250 ps delay and width resolution and 200 ps internal jitter.
- 8 connection channels, customisable to be high voltage, optical or standard electrical channels.
- Other features include complex burst sequences, setting profiles, dual gating, clock divider, pulse picking and negative delay.

## BNC 725 Multi-Trigger Digital Delay Generator

The BNC 725 co-ordinates, integrates and synchronises complicated experimental set-ups.

- 8 independent channels with programmable logic, unique timing modes and 10 ns resolution.
- Each channel operates in any of a range of modes: clock, delayed-pulse, toggled output, noise suppression, fixed passive and timer.
- 'Dynamic delay triggering' based on real time measurement or event, for example – the passing of a projectile.





Southern Scientific is a distributor of Wiener Plein & Baus state-of-the-art modular electronics systems. This includes Wiener's full range of products for the scientific community and industry, including powered crates, electronics modules, power supplies and a range of parts and accessories.

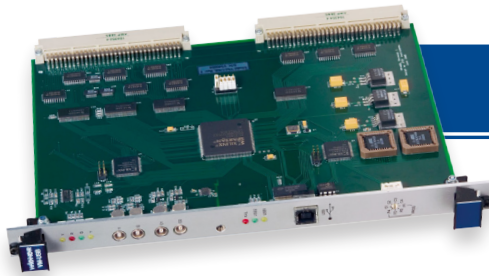
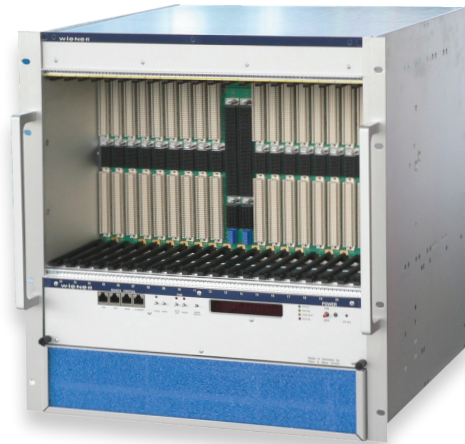
Southern Scientific's expert technical sales team are happy to discuss your requirements, to find you the right solution. Wiener is also able to manufacture custom systems, such as powered crates used at CERN's LHC experiments.

## Powered Crates

A complete catalogue line of chassis for common standards as NIM, CAMAC, all VME varieties, VXI and CPCI are available.

These crates are modular constructed to allow an easy replacement of parts like fan tray or power supply. They combine a superior designed mechanic chassis with high quality, low noise power supplies and a high level of integrated diagnostic and monitoring circuits.

In addition to the standard crate lines listed, modified and special versions can be produced without significant increases in price and delivery time.



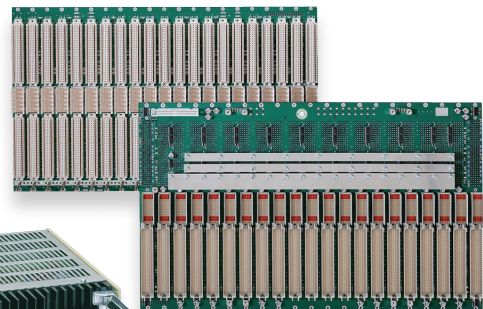
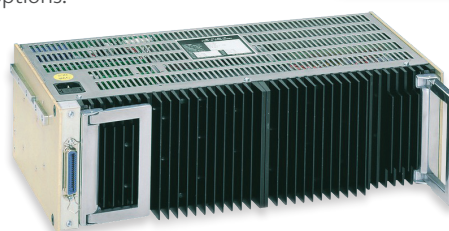
## Modules

Wiener powered crates are perfectly complemented by the range of modules and high voltage power supplies, produced by Struck and Iseg. These include VME modules for readout control and interface, as well as some high quality digitisers, with supporting software based on CERN root, allowing it to be tailored to your needs.

## Power Supplies, Parts and Accessories

A range of multi-channel low voltage power supplies and systems is also available. These power supplies are designed to feed sensitive analogue electronic circuits with highly stabilised, low noise DC voltages.

For maximum flexibility and functionality many options and accessories are available for all the crates and power supplies such as backplanes, controllers and Bin options. Further individual parts can be ordered as spares.





## 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.

## Related Products

### Neutron Monitoring



### Tritium and C-14 Sampling



### Air Sampling



### Environmental Monitoring



### Radon Monitoring



### Portable Gamma Spectroscopy



### Portal Monitoring



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