# Hidex **Triathler**

## Liquid Scintillation Counter and Gamma Counter


HIDEX

LabLogic

EXPERIENCE & EXPERTISE

# Instant results whenever and wherever with this compact and portable counting system

The Hidex Triathler is a single sample counter which provides fast and accurate results for several life science and environmental applications. It can count all radioisotopes including tritium in a variety of sample formats.

Due to its very small size and light weight, Triathler can be taken into the field to measure samples on the spot. Although small, Triathler has many advanced features such as spectrum analysis using a multi-channel analyzer (MCA), instant DPM results, single-photon luminescence counting, and optional PC control and data transfer.


## Easy to Use

A keypad allows single key operation for immediate results using preset protocols for any isotope.

## Flexible

The Triathler is suitable for just about any beta radiation, gamma radiation or luminescence application and accepts most types of vials and sample formats.

## Portable

The Triathler's small size and light weight make it ideal for personal use on a benchtop or for on-site field/sea measurements.

## Sophisticated

Triathler has advanced features such as a built-in multi-channel analyzer, optional alpha-beta separation electronics, and connectivity to a PC for instrument control and data analysis.

## Triathler in Monitoring

### Wipe Tests

Triathler provides fast and reliable results for regulatory wipe tests in lab areas.

### Water Measurements

Triathler has alpha-beta separation capabilities which makes it ideal to detect alpha-isotopes like Radon ($^{222}$Rn) in water. It is also sensitive enough to perform monitoring of $^{3}$H in discharge water used at power plant sites.

### Soil Measurements

Used in conjunction with recognised extraction techniques, Triathler can measure soil samples for contamination with any radioisotope.

## Triathler in Life Sciences

### Molecular Biology

Triathler is well suited for metabolic studies, genetic studies, cell proliferation assays, receptor-ligand assays, and other applications in biosciences. For example, using the optional plastic scintillator adapter (PSA), $^{32}$P can be measured non-destructively (without cocktail).

### Marine Biology

Triathler is commonly used to measure growth of phytoplankton in seawater and lakes by measuring uptake of $^{14}$C.

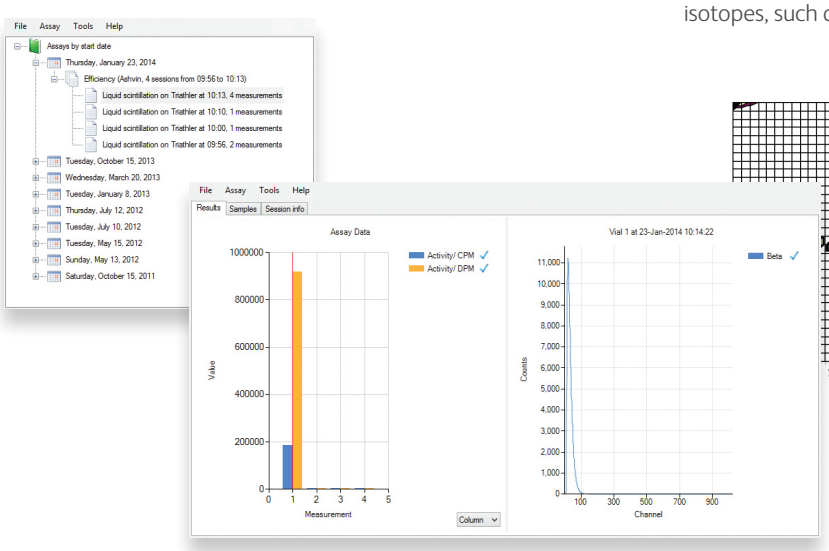
### Emergency Response

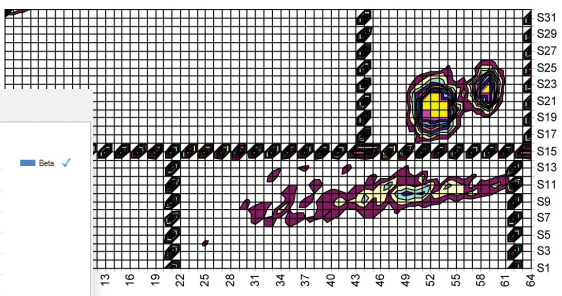
Triathler is well suited for in-field emergency response, e.g. detecting rapid alpha measurements such as $^{241}$Am as well as $^{137}$Cs and $^{131}$I. The external NaI detector can accommodate up to 1 L Marinelli beakers* to measure food, soil and liquids (water, milk, etc.) for gamma contamination.

* Only available with the Becquerel Finder model of Triathler.

### Research

Triathler is ideal as an easy-to-use diagnostic tool in research for detection of beta and gamma isotopes, such as $^{125}$I, $^{18}$F, $^{137}$Cs, $^{57}$Co, etc.



## Basic Specifications

| | |
|---|---|
| **Size** | 13" (L) x 10" (W) x 7" (H) (33 (L) x 25 (W) x 19 (H) cm) |
| **Weight** | 20 lbs (9 kg) |
| **Power** | 110 - 240 V AC, 12 VDC |
| **Sample Types** | LSC Vials, Microtubes, Test Tubes |
| **Detector** | Single-Photon Counting PMT |
| **Display** | 2 x 16 character alpha-numeric LCD |
| **Energy Range** | 2 keV - 2,000 keV |
| **Counting Time** | 0.1 seconds - 99999 minutes |
| **Output** | RS-232C/USB to PC |

Please refer to the Technical Specification Sheet for further information

## Specifications – Liquid Scintillation Counting

| | |
|---|---|
| **Sample Types** | LSC Vials, Microtubes, Test Tubes |
| **Maximum Count Rate** | 2,000,000 CPM |
| **Beta Efficiency** | Up to 45% for $^{3}H$ |
| **Direct $^{32}P$ Efficiency** | Up to 75% in PSA Tube |

## Specifications – Gamma Counting

| | |
|---|---|
| **Sample Types** | Tubes or Vials (up to 0.5" (13 mm) diameter) |
| **Detector** | 1" x 1" (32 x 32 mm) NaI (TI) crystal (through-hole) |
| **Background Shield** | 0.4" (10 mm) lead |

## Specifications – External Gamma Counting

| | |
|---|---|
| **Sample Types** | LSC Vials, Microtubes, Test Tubes, Marinelli Beakers* |
| **Detector** | 2" x 2" (50 x 50 mm) NaI (TI) crystal (planar type) |
| **Background Shield** | 1" or 2" (30 or 50 mm) lead |

*Only available with the Becquerel Finder model of Triathler

## Service and Support

Users of our systems can benefit from our comprehensive, fully inclusive service and support.

We provide complete service and support for all of our customers to give reassurance that if things go wrong or you need expert advice, help is only an e-mail or phone call away.

## Validation Services

Our Validation Service enables you to implement and get maximum value from your investments as soon as possible.

We work as a partner with your Quality Manager, System Manager and users to provide a tailored Validation Plan suited to your needs. Our Validation Specialists incorporate years of experience in GLP system validation, detailed knowledge of our systems, together with other industry standard systems to help you meet your company's requirements.

## Training

LabLogic can provide a variety of training courses and workshops to help you get the most out of your instrument and software.

All training is performed by our expert Product and Support Specialists who have many years experience in the development and use of the instruments and software.

Certificates can be provided to compliment your internal GLP training records.

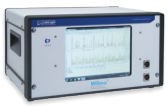
## Related Products

**Hidex 300 SL**
Liquid Scintillation Counter

**Hidex Sense**
Multi-technology Microplate Reader

**Hidex AMG**
Automatic Gamma Counter

**Wilma**
On-line Water Monitor for Radionuclide Detection



**Beta-RAM®**
β Radio-HPLC Flow Detector

**Consumables**

**USA & Canada**

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