Hidex **ULLA**

Ultra Low Level Analyser

www.**lablogic**.com

LabLogic
EXPERIENCE & EXPERTISE

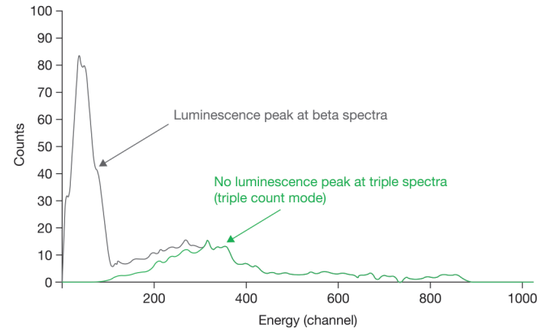
The only true Ultra Low Level Analyser

Hidex has served the liquid scintillation counting market communally for three decades. In recent years, the global market has been missing a true ultra low level LSC since the discontinuation of the 1220. Applications in hydrogeology, cardon dating, biofuels, NORM, etc. now has an instrument to meet its detection needs.

Ultra low background and triple coincidence detector

Low background is achieved with heavy passive lead shield and geometrically optimal active guard, which surrounds modern triple-PMT detector. This facilitates exceptionally high counting efficiency, luminescence free counting, and absolute activity counting by the TDCR method. TDCR being a metrology application.

Vials are deionised prior to loading to remove static electricity. Cooling module maintains the sample stability at an optimum temperature. The detector chamber can be flushed with nitrogen to remove ^{222}Rn gas, which could compromise your results.



Digital Pb shield and Hidex biofuel methods

Digital Pb is an unique mathematical method for Hidex TDCR counters, which decreases background counts and background uncertainty.

Biofuel Algorithm is an unique mathematical method that can find background count rates for samples where similar blank is not available.

- ^{3}H in water.
- ^{14}C dating.
- Biogenic carbon content in fuels, plastics, etc.
- Alpha and beta isotopes in soil, food and water.

Quench correction with TDCR

Default quench correction is done by TDCR method. External ^{152}Eu standard source is available as an option for conventional quench correction. Alternatively the QPC method uses natural cosmic radiation as the external radioactive source instead of built-in gamma source.

Specifications	
Sample Capacity (20/7/5 ml)	80/192/192
Isotopes (Typical examples)	^{3}H, ^{14}C, ^{90}Sr/^{90}Y, ^{226}Ra, ^{222}Rn, Gross a/b
Counting Efficiency ^{3}H/^{14}C (%)	70/97 (unquenched), > 35 for ^{3}H in 8+12 ml H_2O
Background (CPM) *25 % ^{3}H ROI in 8+12 ml H_2O	< 1 CPM in normal surface lab condition
FOM ^{3}H in 8+12 ml H_2O	> 600 without optimisation, > 900 with optimisation and DigitalPb
Dimensions W/H/D (cm)	65/125/900 (with cooler)
Weight (kg)	~800

*Performance values were measured at the Hidex facility in Turku, Finland. Please refer to the Technical Specification Sheet for further information.

Combining existing technology with the latest innovations

Maximum light collection

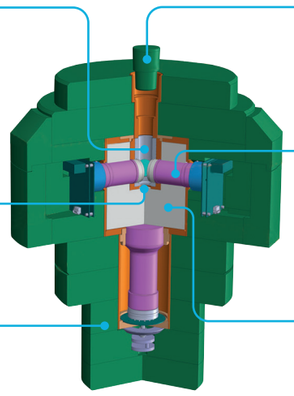
Measurement chamber with highly reflective opaque paint maximises light collection.

Flushing

Gas inlet for flushing the measurement chamber.

Protection from environmental radiation

Extensive lead shield surrounding the detector and the guard provide optimal shield from environmental radiation.



Shielding

Lead cap shields the detector during counting.

TDCR counting

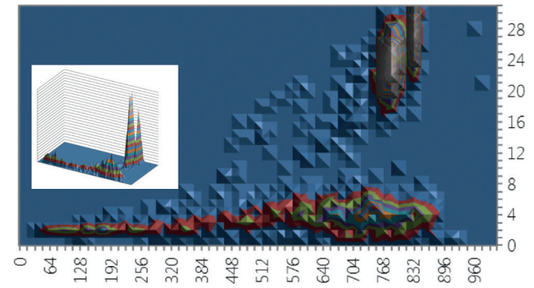
Three PMTs provide optimum measurement geometry and enable TDCR counting.

Active plastic scintillator guard

An active plastic scintillator guard, coupled to a PMT, surrounds the measurement chamber for effective background pulse detection and removal.

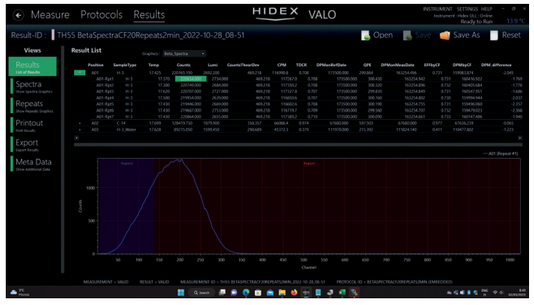
Alpha/beta separation

Unique Hidex alpha/beta separation electronics with 3D graphical AB-calibration tool facilitating reliable and sensitive detection of alpha isotopes in the presence of beta isotopes, with no misclassification nor spill-overwhen optimised.



Hidex VALO user software

VALO is a modern user-friendly software designed specifically for Hidex automatic LSC. The development was based on user feedback with special attention on usability – from building up the methods, to loading of samples, to evaluation of the results. The features include automatic reprocessing of data with new energy ROIs and a/b discriminator without remeasuring the samples. Windows 11 compatible.



Service and Support

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

We can 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 who have many years' of experience in GLP system validation, detailed knowledge of our systems, together with other industry standard systems to help you meet company and regulatory 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 complement your internal GLP training records.

Europe & Worldwide

LabLogic Systems Limited
Innovation House, 6 Europa View
Sheffield, S9 1XH, UK

E-mail: solutions@lablogic.com
Tel: +44 (0)114 266 7267
Fax: +44 (0)114 266 3944

www.lablogic.com

USA & Canada

LabLogic Systems, Inc.
1911 N US HWY 301, Suite 140
Tampa, FL 33619, USA

E-mail: solutions@lablogic.com
Tel: +1-813-626-6848
Fax: +1-813-620-3708

www.lablogic.com

LabLogic
EXPERIENCE & EXPERTISE

Certificate No: 1535
ISO 9001

INVESTORS IN PEOPLE | Silver Until 2022

Certificate No: 10926
ISO 9001

Version 1.0 May 2023