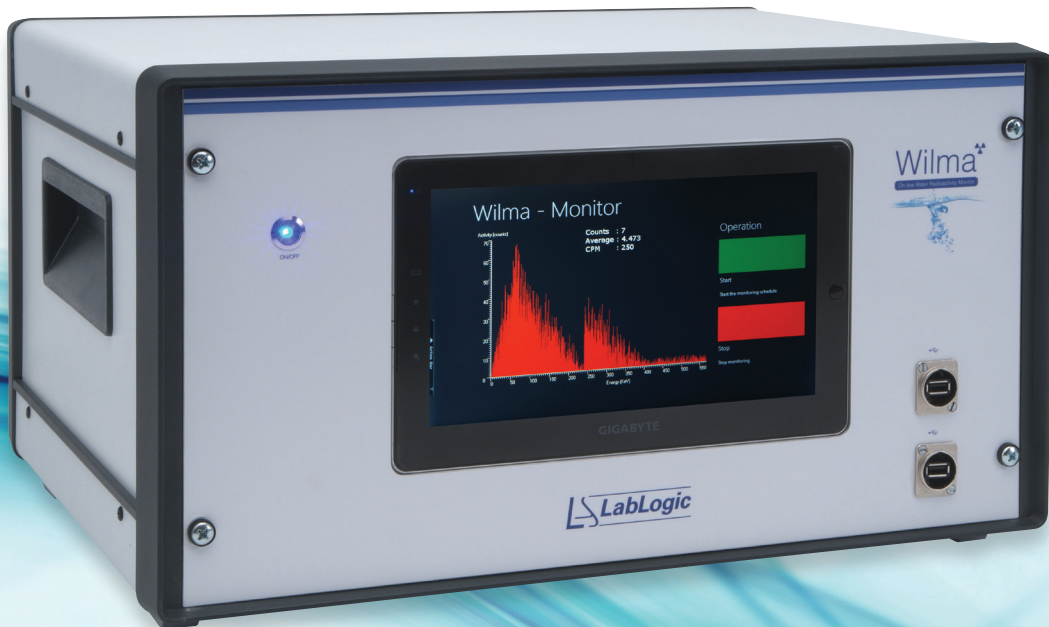# Wilma

On-line Water Radioactivity Monitor

A fully automated, on-line water monitoring system for the detection of radioactivity

Wilma 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.

Fully integrated system

The simple, self-contained unit combines fluid handling systems for sample collection, preparation, and disposal, with radiation detection and analysis of contamination, all within a rugged and compact housing. IP-rated enclosures are available upon request.

Totally autonomous

The self-contained system is able to operate independently, for as long as it has the necessary reagents. Wilma was designed to minimise waste production and reduce the consumables required. With a well-characterised response and stable background, this design allows a unit to continue running without supervision for in excess of 30 days.
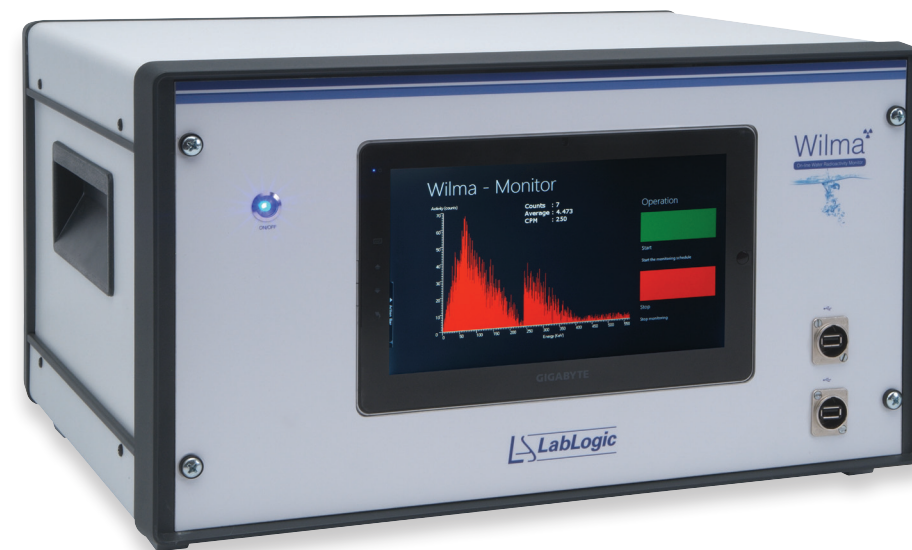
Completely customisable

Designed, developed and built by the LabLogic Group, Wilma can be fully customised to suit any application. The system can integrate additional sensors and measurement systems, handle complex sampling and preparation routines, and integrate with external monitoring and alarm networks. We work closely with our customers in order to provide them with the most applicable solution.
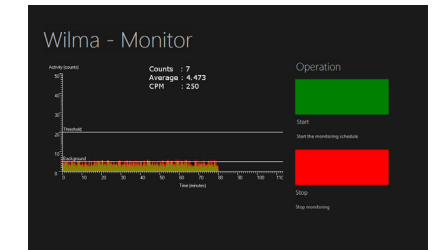
Simple to use

Wilma includes a touchscreen PC running user-friendly software, which allows easy configuration and monitoring of sampling and measurement cycles. Default measurement cycles can be provided to bring the instrument on-line soon after installation.
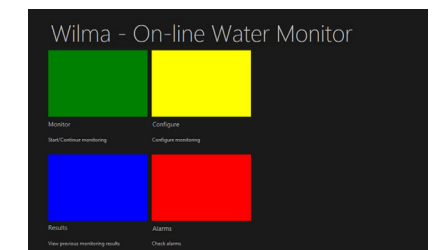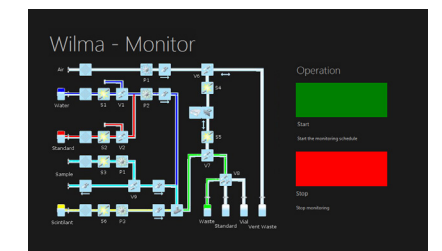

Count rate monitor shows sample activity during analysis time.

Simple home screen allows for navigation to main instrument features:

- Configuration
- Real-time Monitors
- Results Analysis
- Trigger Notification

Animated flow-path diagram shows instrument status in real-time and allows sample flow to be tracked.

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.

Basic Specifications

Basic Specifications
Small sample volume (max. 5 ml) minimises scintillation cocktail waste production
Established coincidence-based liquid scintillation counting techniques gives background rates <5 cpm
Low energy β counting efficiency (^{3}H) >15% for a 2 ml sample (2.5 ml scintillation cocktail)
Lower limit of detection for ^{3}H is 2200 pCi/L (81.4 Bq/L) for a 60 min. count time and 1500 pCi/L (55.5 Bq/L) for 120 min.
Proven detection sensitivity down to 10 nCi/L (370 Bq/L) for key environmental radionuclides ^{3}H, ^{90}Sr, ^{137}Cs and ^{241}Am
Please refer to the Technical Specification Sheet for further information

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 company and regulatory requirements.

Training

LabLogic can provide a variety of training courses and workshops to help you get the most out of your instruments 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 Triathler
Liquid Scintillation Counter and Gamma Counter

Hidex AMG
Automatic Gamma Counter

Beta-RAM®
β Radio-HPLC Flow Detector

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