

Wilma is a newly developed on-line water monitoring system for detection of low-level beta radioisotopes in water.

The instrument consists of a liquid handling module, a coincidence detection system for liquid scintillation counting (LSC), an integrated multi-channel analyser (MCA) and bespoke control and data acquisition/analysis software.



APPLICATIONS

- Environmental analysis: Water standard monitoring.
- Nuclear power generation: Changes in ${}^3\text{H}$ levels in cooling water.
- Homeland security: On-line monitoring of radionuclide contamination in drinking water.

SOFTWARE

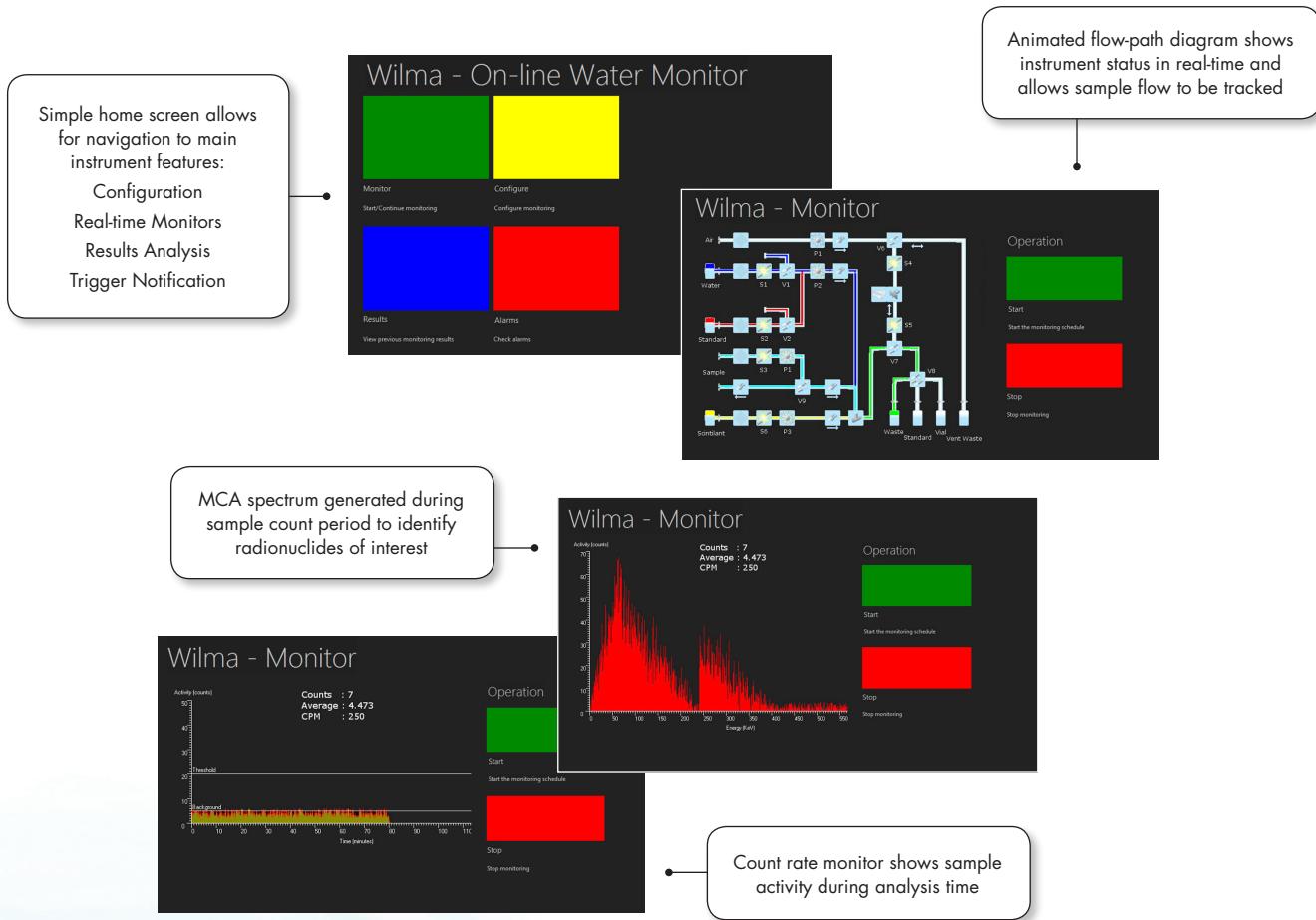
- Custom developed for ease of use and maximum flexibility.
- Step-based cycle approach – Pre-defined methods can be edited for custom applications.
- All system parameters may be controlled in order to optimise the collection, measurement and flushing of samples.

HARDWARE

- Designed for real-time, low level detection of ${}^3\text{H}$ and other alpha and beta radionuclides in water samples.
- Automated sampling, mixing, measurement, purging and wash processes.
- Low sample volume (5 mL) minimises waste production.
- Simultaneous measurement of sample spectrum and activity level.
- Rugged design to permit long-term, unattended operation (more than 30 days).
- Automatic diversion of potentially contaminated samples (exceeding defined threshold) to vial for additional analysis.
- Compact footprint.

SOFTWARE

The software for the on-line water monitor has been specifically developed so that the system can be used by a technician and left unattended over several weeks. All of the system's parameters for collecting, sampling and flushing a sample are based on pre-defined methods and each counting cycle has a corresponding data file which is saved and can be retrieved later for analysis. The methods can be easily altered to suit different installation types, unique user requirements, as well as desired detection levels (based on counting times).



SPECIFICATIONS

Size	515 mm (W) x 400 mm (D) x 280 mm (H)
Weight	10 kg
Background Count Rate	5 cpm
Lower Limit of Detection for ${}^3\text{H}$	80 Bq/L for a 60 min. count time (to 5σ precision) 55 Bq/L for a 120 min. count time (to 5σ precision)



Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.



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Please note - Product designs and specifications are subject to change without notice. The user is responsible for determining the suitability of this product.