

Photonic 
Measurements

Trusted Water Quality Measurement





About Us

Empowering Your Success with Innovative Water Quality Measurement Instrumentation

We aim to help clients achieve water safety and environmental protection with advanced technology and great service

Photonic Measurements Ltd is a multi-award-winning, UK and EU based global provider of advanced water quality measurement instrumentation, specializing in wastewater, drinking water, and environmental sectors.

Our comprehensive range of UV, IR, and optical water quality measurement instruments are designed to assess critical parameters such as Nitrate, UV transmission, UV absorption and organic content indicators. We offer versatile online, inline, and portable solutions to meet diverse water quality monitoring needs.

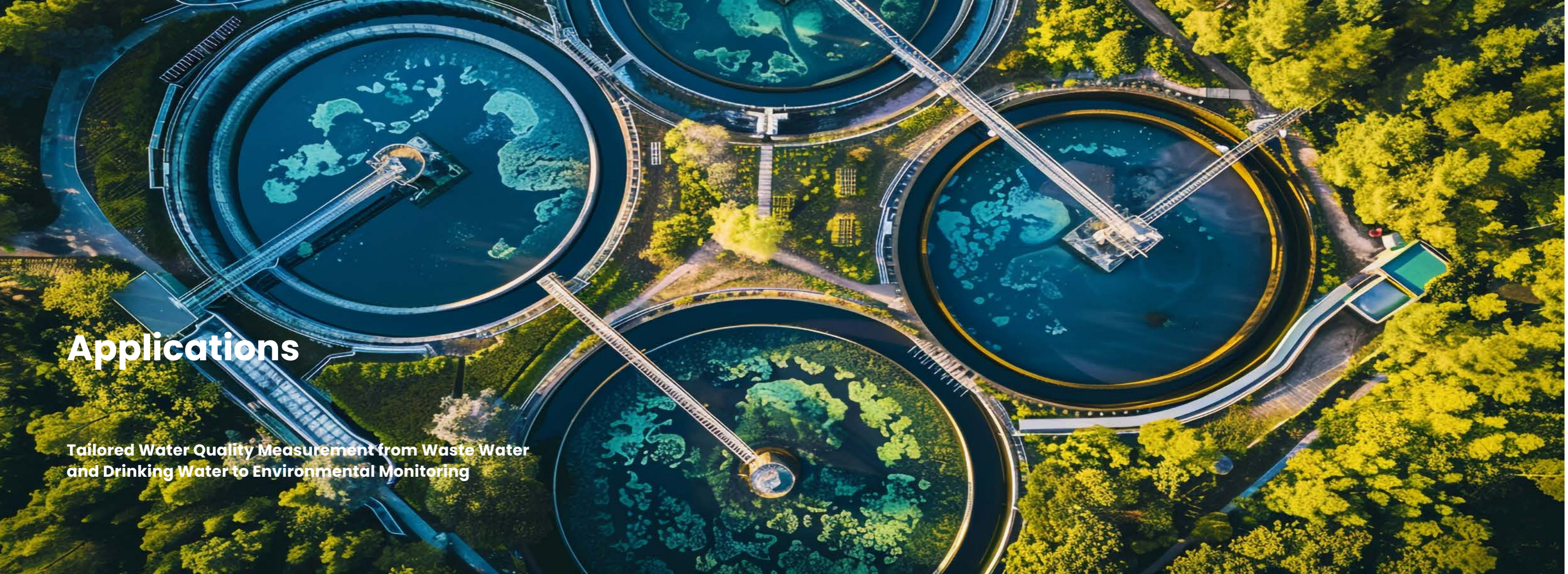
Committed to water safety, operational excellence, compliance, and sustainability, we support a circular economy by delivering innovative, reliable, and accurate water quality monitoring solutions.

UK Manufacturing and Global Presence

- We deliver premium products manufactured in the UK.
- Benefit from our dedicated local customer support.
- Access our advanced water quality solutions worldwide.
- Experience our commitment to excellence with cutting-edge technology and exceptional service.

Some of Our Clients





Applications

Tailored Water Quality Measurement from Waste Water and Drinking Water to Environmental Monitoring

Improve Control and Compliance for Waste Water Treatment

Track organic load (UV254) and nitrates for proactive adjustments in raw influent, while ensuring compliance with real-time organic content monitoring in final effluent.

- **Real-Time Monitoring:** Automated nitrate measurements allow for quick responses to water condition changes.
- **Cost Savings:** Save time and avoid the hassle of frequent sensor calibration and installation. Reduce electricity costs by up to 19% with real-time aeration control for nitrate,
- **Enhanced Compliance:** Effortlessly meet organic content and nitrate regulations.

Safeguard Your Drinking Water with Fast, Reliable Monitoring

Ensure consistent, high-quality drinking water by tracking key parameters like pH, Chlorine, Turbidity, and UV254 in real-time for optimized treatment.

- **Quick, Reliable Data:** Ensure water quality with $\pm 1\%$ accuracy.
- **Cost Reduction:** Minimize chemical waste and optimize dosing.
- **Enhanced Control:** Adjust treatment with real-time insights.
- **SCADA Integration:** Automate control and receive instant alerts.

Empower Environmental Monitoring with Portable UV254 Devices

Ensure data-driven decision-making in remote locations with portable, rugged UV254 analyzers that provide fast, reliable, and accurate water quality measurements.

- **Rapid Response:** Swiftly address water quality threats with immediate on-site data.
- **Enhanced Efficiency:** Expedite sample collection by eliminating lab analysis.
- **Improved Data Quality:** Reduce errors from sample transport and storage.
- **Regulatory Compliance:** Ensure adherence to regulations with accurate UV254 measurements.



Parameters

Mitigate the Risk of Organic and Nitrate Contamination in Water Treatment Processes

Ensure you have the latest tools for measuring diverse parameters

Understanding Parameters: A Crucial Aspect of Water Quality

Excessive organic matter in water poses health risks and disrupts treatment processes.

Measuring parameters in drinking water, wastewater, and environmental contexts ensures high-quality water, operational efficiency, and sustainability.

Enhancing Water Safety: Revolutionary Nitrate Measurement and UV254 Analysis

Our Nitrate instrumentation provides rapid and reliable measurement of nitrate concentrations in water.

This technology offers specificity, sensitivity, and cost-effectiveness compared to traditional approaches.

UV254 measures ultraviolet transmittance (UVT) or absorption (UVA) at 254 nm, providing critical insights into organic contamination levels.

It supports efficient water quality monitoring, informs decisions on treatment processes and pollution events, and ensures compliance with regulatory standards.

Nitrate: A Hidden Threat to Water Quality

Nitrate (NO₃⁻), while important for plant growth, can become a threat at high levels.

UVT: Mitigate Risks to Achieve Effective Water Treatment

UV254, or Ultraviolet Transmittance at 254 nm, is highly regarded in water quality measurement due to its ability to detect organic contaminants and particles invisible to the naked eye.

UVA Surrogates: Gain Insights into organic Contaminants

UVA surrogates measure parameters to estimate the concentration of dissolved organic matter (DOM) in water by measuring substances that absorb UV light at 254 nm, including BOD, COD, DOC, and TOC.

Total Suspended Solids (TSS): A Key Water Quality Indicator

Managing TSS is essential for maintaining water quality, ensuring regulatory compliance, and protecting both infrastructure and the environment.

Mixed Liquor Suspended Solids (MLSS): Wide Ranging Measurement of Aeration Tanks

MLSS is a vital parameter that measures suspended solids, including microorganisms, in aeration tanks, essential for maintaining biological activity, optimizing energy use, and ensuring effective wastewater treatment.



Customer Success

RIGHT.

Right Group Optimizes Water Treatment with Collaborative Development of the UV254 Go!

Challenge

Karl Fox, ICA Manager identified a need for a reliable portable field instrument to save the time, effort and costs of transporting water samples to the laboratory and giving reliable results in minutes not days.

Solution

Through collaboration with Photonic Measurements, Right Group helped develop the UV254 Go!, a portable UV analyzer that provides fast and accurate results.

Impact

- ✓ **Enhanced Efficiency:** Right Group saves time and money by eliminating unnecessary lab trips and plant shutdowns.
- ✓ **Improved Client Confidence:** Accurate data with a +1% tolerance and strengthened client relationships.
- ✓ **Streamlined Verification:** The UV254 Go! simplified on-site verification procedures.
- ✓ **Peace of Mind:** Right Group trusts the instrument's readings for optimal water quality delivery.

"The UV254 Go! is a game-changer for us! We can truly trust its readings, giving us peace of mind and the confidence that our clients can deliver optimal water quality. Right Group is excited to continue our collaboration with Photonic Measurements and bring the benefits of the UV254 Go! to our customers across Ireland."

Karl Fox, ICA Manager, Right Group

Real-Time Water Quality Monitoring Instrumentation

Our suite of online, inline, and portable water quality management systems offers comprehensive solutions for monitoring and maintaining optimal water quality across various applications.



Online

Continuous, automated monitoring at fixed locations, ensuring immediate detection and response.



Inline

Ideal for real-time measurements within the water flow, optimizing control processes.



Portables

Offers flexibility and mobility for spot checks, onsite verifications, and supplementary monitoring.

"We use it weekly to monitor our raw water. It's been trouble free, and it gives very comparable results to the \$60K Lab Analyzer that our lab counterparts use for organic characterization when we sample at similar times. We have been happy with our purchase."

**Charles Lacy, Lab Analyst III,
City of Akron**

**Safeguard Water Quality, Achieve Compliance Standards,
Optimise Operations with Reliable and Repeatable Measurements**

**Photonic Measurements Ltd
3 Crescent Business Park, Lisburn, BT28 2GN, UK**

**w. photonicmeasurements.com
e. sales@photonicmeasurements.com
t. +44 (0)28 9210 6263**

**Photonic Measurements is your trusted partner for
advanced water quality monitoring instrumentation.**