



Environmental testing Industry

Online Analyzers for
Potable Water Processing

**PUSHING
THE
LIMITS
TOGETHER**

 **Metrohm**
Process Analytics

There is more than we'd like in water ...

If there is one thing that everybody depends on, it is water. We drink it every day. We use it in nearly every industry as a cleaning agent, to moderate processes, or actually as a solvent in production. And once we have used it is discharged into the environment again.

Therefore, it is of the utmost importance to society to monitor water quality.



PLUG AND ANALYZE

Given the universal necessity and importance of water, any serious technical solution to monitor its quality should be easy to use, reliable, and of course, sensitive enough and highly accurate. These are in fact the features and benefits that the **202X Process Analyzers** from Metrohm Process Analytics provides.

VERY EASY AND SECURE TO USE

Just connect the power, sample, and reagent lines and the 202X Process Analyzer will be fully operational. Additionally, the electronics part is 100% separated from the wet part of the analyzer, making daily maintenance and checks possible without the need to access the electronic part.

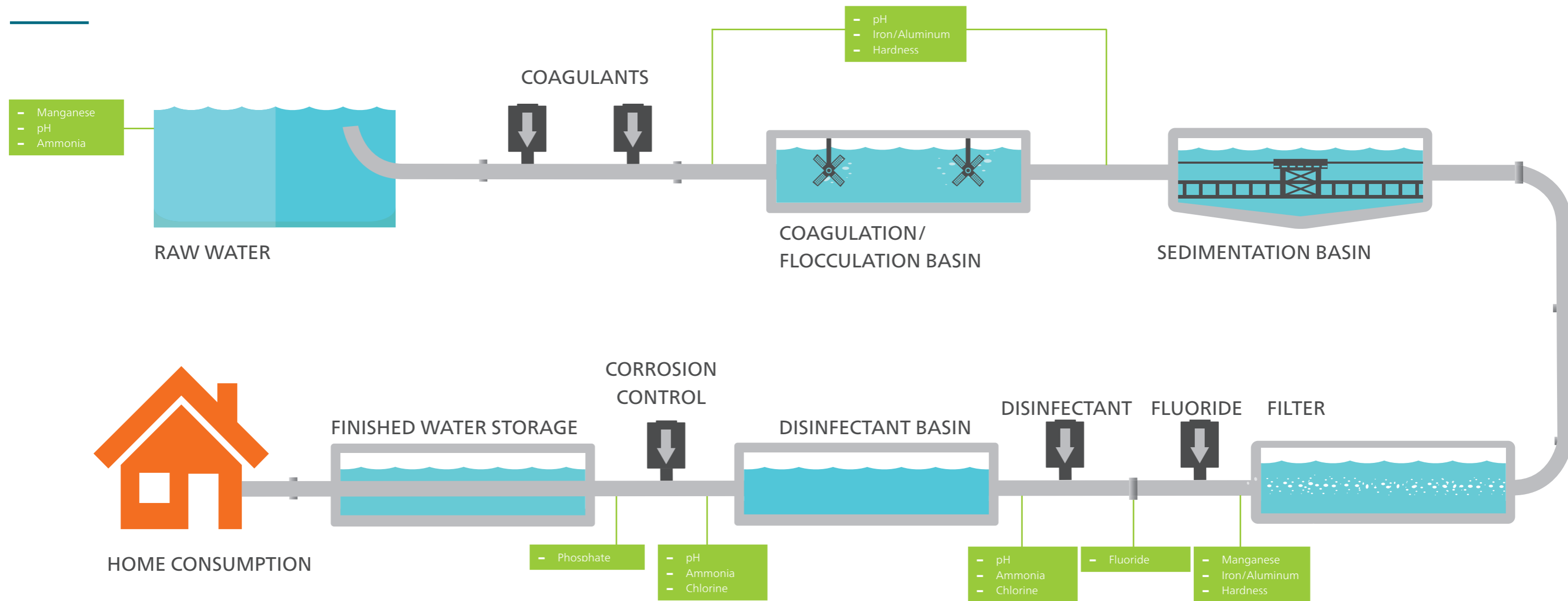
SUPERIOR RELIABILITY

Validation, cleaning, and calibration of your sample are standard features of our 202X Process Analyzers, which significantly reduces downtime and operator intervention.

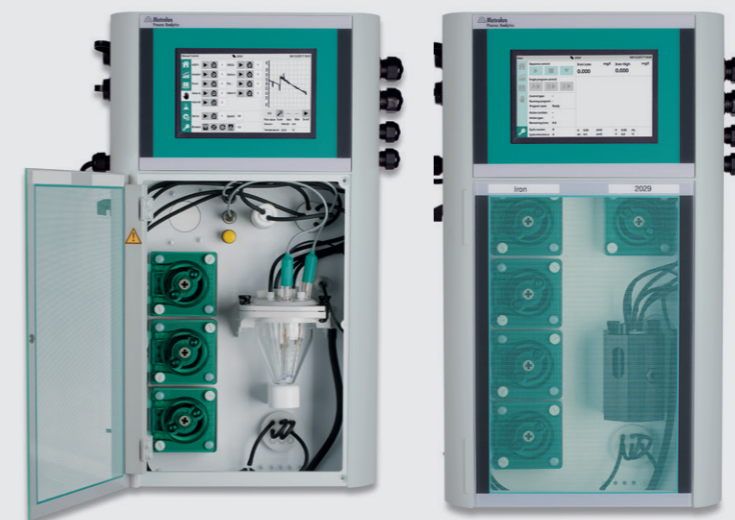
OUTSTANDING SENSITIVITY & ACCURACY

Depending on the analyte and sample matrix, the measurement ranges of the 202X Process Analyzer vary from trace $\mu\text{g/L}$ to mg/L .

Analyzer locations in the treatment process



OUR **202X PROCESS ANALYZERS** CAN BE SET UP TO MONITOR A WIDE RANGE OF SUBSTANCES AND PARAMETERS, EASILY AND RELIABLY.



More than just process analysis

Increasingly, drinking water samples have to be analyzed more rapidly to pick up changing process conditions (e.g. Seasonal water inversions). However, skilled laboratory staff is not always available around the clock and long distances to the laboratory often prevent fast sample analysis.

If, in such cases, the water sample can be analyzed directly on-site within the process, this is a decisive advantage. Our 202X Process Analyzers can be set up online to monitor a wide range of substances and parameters, easily and reliably. Metrohm Process Analytics offers multiple models for a variety of parameters covering the key requirements of drinking water analysis that helps to reduce costs:



Monitoring pH for solid removal

The coagulation/flocculation process is an important first treatment step in a potable water plant to separate suspended and colloidal solids from the water source. This process is heavily influenced by many parameters and one of those is pH. Our **2026 pH Process Analyzer** is a robust, self-calibrating, and drift-free unit that will help keep your coagulation process in check.

Iron or Aluminum coagulants monitoring

Drinking water processes require removal of metals, organics, and general unwanted components. Primary coagulants like Aluminum or Ferric salts are dosed in the coagulation basin to form precipitates or flocculates with these impurities and forces them to clump together. Monitoring and validating Iron and Aluminum concentration levels ensures proper chemical dose rates that further optimizes the flocculation process. This is possible with the **2029 Iron Process Analyzer** and **2029 Aluminum Analyzers**.

Water fluoridation analysis

Some drinking water facilities dose fluoride into drinking water to prevent tooth decay within communities. Highly accurate zero-drift Fluoride measurements can be carried out on our **2026 Fluoride Analyzer** with Metrohm's unique Dynamic Standard Addition technique.

Raw water quality monitoring

Ammonia levels in inlet water can be an indication of contamination events from run-off and leaching of agricultural wastes. Our **2026 and 2029 Ammonia Analyzers** can measure ammonia accurately from low $\mu\text{g/L}$ to high mg/L levels.

Online chlorine analysis

Chlorination of drinking water is important for disinfection and to keep the water free from microbial growth. Inline chlorine probes can suffer from drift, may require regular maintenance, and a backup analysis. Our **2026 Chlorine Process Analyzer** can give zero-drift-free that will help keep your disinfection process in check.

Monitoring ammonia in chloramination

Chloramination has become more widely used as a disinfection strategy in drinking water networks. It is an effective disinfectant, which has benefits over chlorine. Chloramine is a longer-lasting species in the drinking water network and gives rise to less disinfection by-products which can harm health. However, the process of chloraminating drinking water requires there to be a slight excess of free ammonia to chloramine. The free Ammonia however must not exceed consent limits. It is very important to monitor and control the free Ammonia level in the chloramination process and it is possible with the **2029 Ammonia Analyzer** from Metrohm Process Analytics.

Corrosion management

Phosphate dosing is important to protect lead pipe networks from corrosion and also to prevent toxic lead dissolving into the drinking water. Too high phosphate levels is also a health risk and as such must be closely controlled. Accurate analysis and control of phosphate can be achieved with the **2029 Phosphate Analyzer**.

Avoid discoloration on drinking water

High level Manganese impurities in water can lead to serious discoloration in drinking water. Manganese levels in source waters (ground or surface) can change significantly over time due to seasonal water inversion that directly impacts the water treatment process in place. Therefore, constant monitoring and control of Mn in inlet waters is needed to adjust and optimize chemical oxidant additions to enhance the quality of the water. Colorimetric analysis using the modified 1-(2-Pyridylazo)-2-Naphthol (PAN) method can hit low and high manganese ranges and it is possible with the **2029 Manganese Analyzer** from Metrohm Process Analytics.

Water hardness

Hardness in water can lead to serious scaling problems in many process industries. To keep hardness in check, Metrohm Process Analytics offers two solutions to tackle all applications. The **2026 Hardness Process Analyzer** is designed to monitor hardness levels from mg/L to g/L and the **2029 Hardness Process Analyzer** for monitoring hardness levels from $\mu\text{g/L}$ to mg/L .

