202X Process Analyzers

Powerful and compact single method online analyzers

PUSHING THE LIMITS TOGETHER

Metrohm means … Spectroscopy!

Metrohm Process Analytics

Monitoring your process 24/7

Maximize profitability, comply with regulations, and increase plant safety

Metrohm Process Analytics is known as a pioneer in process analysis and has become one of the global process industry's preferred solution providers for monitoring key parameters in large scale industrial manufacturing processes.

The first multipurpose process analyzer was developed by Metrohm in the 1970's, with a limited range to handle four sample streams. Since then, Metrohm Process Analytics has continued to push the limits together with our customers by providing the best customized online analytical solution on the market.

202X Process Analyzers

The 2026 Titrolyzer and 2029 Process Photometer are versatile process analyzers that are capable of measuring different analytes with either titration or photometric measurements in up to 2 sample streams.

BENEFITS FOR ONLINE ANALYSIS

- Protect expensive company assets by monitoring your processes
- Process data available at your fingertips 24/7 means no waiting for time-consuming, manual laboratory methods
- Increased safety for employees – no manual sampling necessary, reagents kept separately
- Maximize process uptime: analyzer sends alarms for out-of-specification values which inform the operator sooner

Dual compartment enclosure
Ensures complete separation between the electronics and the wet part, therefore no leakages possible into the electronics part

Industrial panel for different combinations
From settler units to pumps and reagent cabinets, an industrial panel unit is available to install for a complete process solution

Smart from the inside out
High resolution dosing system for accurate and reproducible results

High precision burette for ion measurement
The 2026 Titrolyzer includes a high precision burette to perform dynamic standard addition measurements and calibrations. The burette is fitted with a viewing window, enabling visual inspection of the contents to determine the presence of the reagent.

Less maintenance, more uptime
The reaction vessel module has been improved even further. The stirrer assembly contains no motor or moving parts, ensuring a longer lifespan of the analyzer.

2026 Titrolyzer

ANALYTICAL METHOD: TITRATION

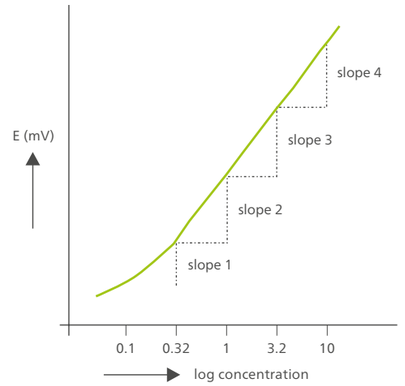
Titration is one of the most frequently applied and proven analysis techniques. This can be explained by the fact that it uses an absolute analysis method to deliver the most accurate results you can depend on. This is also reflected in the following analysis modes available in the 2026 Titrolyzer:

- Titrations
- Ion selective measurement (ISE)
- Direct measurement
- Dynamic standard addition

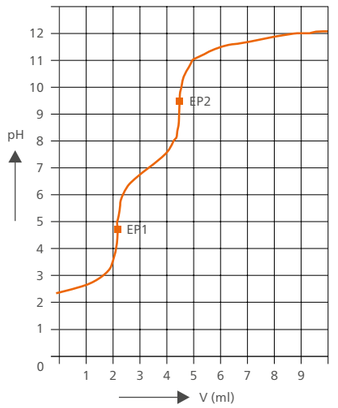
ENHANCED PH MEASUREMENTS WITH AUTOMATED PRECISION

To overcome the everyday challenges of manual sampling, the 2026 Titrolyzer can perform pH measurements batchwise with **automatic cleaning and calibration**. The condition of the electrode is automatically monitored, reducing maintenance for plant operators.

The analyzer is also equipped with **automatic temperature compensation** based on the sample temperature, ensuring the highest accuracy of your results.



Higher precision due to multi-slope calibration and accurate dosing system.



Titration curve with two inflection points

2029 Process Photometer

The 2029 Process Photometer performs photometric absorption measurements in the visible light range.

- Photometric measurements
- Differential absorbance measurements

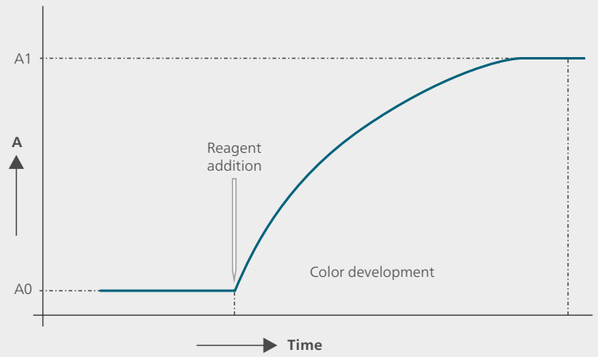
Differential absorbance photometry automatically detects the color development stabilization within an optimum time interval while eliminating the background sample color that could interfere with the measurement.

Both features ensure a robust system and accurate results for process control

- Thermostated cuvette with 3 cm light path, insensitive to sample temperature variations
- Insensitive to cuvette fouling, background sample color or aging of light source
- High accuracy and repeatability
- High sensitivity, typically in the low µg/L
- Processes linear as well as curved calibration lines, offering wide measuring ranges.

EASILY MOVE TO ONLINE MEASUREMENT

Photometric laboratory methods can be easily transferred to the 2029 Process Photometer, eliminating any bias in results for improved process validation.



(L) Thermostated cuvette module at the heart of the 2029 Process Photometer. (R) Drift-controlled measured value acceptance.

Increased safety for employees
No manual sampling necessary, no exposure to hazardous environments

Save money by reducing downtime
Analyzer sends alarms for out-of-specification values which inform the operator sooner

Unmatched Versatility for Demanding Samples

At Metrohm Process Analytics, we understand the diverse needs of our customers when it comes to sample analysis. The 202X Process Analyzers are also available in a heavy-duty (HD) version designed specifically for harsher samples that would normally require preconditioning. With this new family product addition, you can achieve exceptional results without the need for extensive sample pretreatment - it's a simple plug-and-play solution.

Uncompromising Quality, Cost-Effective Solution
The 2026 HD Titrolyzer and 2029 HD Process Photometer deliver exceptional quality without compromising accuracy or reliability. These analyzers offer the same outstanding performance as their standard versions, ensuring precise results for samples with unique characteristics.

Streamlined Upgradability
Our 2026 HD Titrolyzer and 2029 HD Process Photometer have been carefully engineered to provide an efficient and hassle-free analyzer solution. When faced with harsher samples, simply plug in these analyzers, and you're ready to go. There's no need to purchase additional parts or pumps, saving you both time and money.

Suitable for all samples
Handles extensive preconditioning with ease

Ideal for process environments
Safe, rugged enclosure designed to IP66 specifications

EFFORTLESS INTEGRATION
Gone are the days of complex and time-consuming installations. The 202X Process Analyzers are designed with a plug-and-play approach, allowing for quick and effortless setup. Its intuitive design ensures that the system can be easily connected to your plant, minimizing downtime and maximizing productivity. The system's compatibility with standard industrial communication protocols facilitates a smooth interface with your process control systems, enabling you to start harnessing its benefits in no time.

PREDICTIVE MAINTENANCE AND REDUCED DOWNTIME
Downtime can be a major drain on productivity and profitability. The 202X Process Analyzers are equipped with advanced predictive maintenance capabilities that detect potential equipment issues before they escalate into costly breakdowns. By enabling proactive maintenance, the system helps you minimize unplanned downtime and ensures continuous operations, boosting overall plant efficiency.

ENHANCED CHEMICAL RESISTANCE
Building upon their renowned accuracy, the cutting-edge HD analyzers are equipped with chemical resistance liquid handling components including PEEK (PolyEther Ether Ketone) valves and FEP (Fluorinated Ethylene-Propylene) tubing to handle a wide range of aggressive chemicals, ensuring optimal performance even in the harshest industrial environments. This enhancement not only boosts the reliability of the analyzers but also expands their applicability across diverse industries where corrosive substances are prevalent.

Applications

The 2026 Titrolyzer and 2026 HD Titrolyzer can be your partner to secure the safety of your water sources and be an integral part of improving your process.

Many reliable applications are available for these analyzers, giving you a head start on analysis with the help of our expert chemical knowledge:

- Sulfuric acid
- Chloride
- Caustic [NaOH] + Carbonate [CO_3^{2-}]
- Hydrochloric Acid
- Copper
- Online pH measurement
- Cyanide
- Hydrogen Fluoride
- Hydrogen Peroxide
- Hardness [Ca^{2+}/Mg^{2+}]
- and more

The 2029 Process Photometer and 2029 HD Process Photometer are suitable for a wide variety of photometric applications in water and wastewater.

- Phosphate, Silica, Chlorine
- Cyanide
- Iron, Nickel, Zinc
- Ammonia, Nitrate, Nitrite
- Copper, Chromium
- Calcium and Magnesium
- and more

We are here for you worldwide

Metrohm Process Analytics is present in more than 50 countries. Every subsidiary has its own service organization, spare parts warehouse, and trained service engineers. Distributors are either equipped with the same infrastructure or receive service and repair support from our Regional Support Centers (RSC), or directly from our head-quarters in the Netherlands.

The high standards we maintain are also a promise to you. Regardless of when or where in the world you rely on our services, these services are performed to the same exacting standards.

Wherever you need us, we're there to help.

Local service and support – worldwide

- Subsidiaries
- Exclusive distributor

Metrohm
Repair Service

Metrohm means … Spectroscopy!

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