

# IONIC ANALYZER



Dedicated online photometer for water and wastewater analysis

# STRAIGHTFORWARD ONLINE WATER MONITORING

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, 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 IONIC Analyzer** from **FLOEMS Process Analytics** provides. **The new IONIC Analyzer** was developed specifically for the near-continuous analysis of a large number of parameters critical for water quality.

**The IONIC Analyzer is dedicated for the analysis of water and wastewater, and can be used in various situations:**

- Wastewater Effluent
- Surface Water
- Drinking Water
- Ultrapure Water
- Steam and Condensate Water
- Ion-exchange Systems
- Boiler Feed Water
- Demineralizers



## ▪ Very easy to use:

Just connect the power, sample, and reagent lines and the IONIC Analyzer is fully operational.

## ▪ Superior reliability:

Validation, cleaning and calibration are standard features which significantly reduce downtime and operator intervention.

## ▪ Outstanding sensitivity & accuracy:

Depending on the analyte and matrix, the determination ranges of the IONIC Analyzer vary from trace  $\mu\text{g/L}$  to  $\text{mg/L}$ .

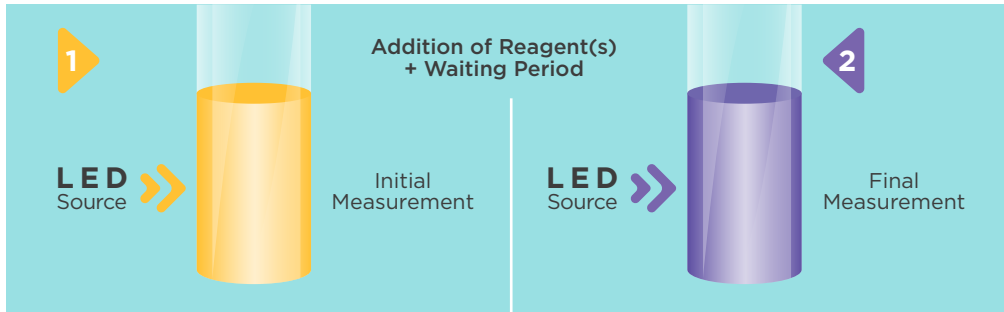
## ▪ Secure:

The electronics part is 100% separated from the wet part of the analyzer.



# COLORIMETRIC METHOD

For more accuracy, the IONIC Analyzer measures twice during one analysis cycle:



The first measurement is from the raw sample as a reference, which compensates for the color and turbidity of the sample and the fouling of the cell. The second measurement of the sample is taken after the addition of color reagent and completion of the reaction. Based on the calibration and the differential absorbance, the software calculates the analyte concentration.

**The IONIC Analyzer** can measure a variety of components in water. All applications have been field-tested and have an excellent analytical performance.

## Some Common Analytes Monitored for Water Quality Control:

- Aluminum
- Ammonia
- Chlorine
- Chromium
- Copper
- Cyanide
- Hydrazine
- Iron
- Manganese
- Nickel
- Nitrate
- Nitrite
- Phenol
- Phosphate
- Silica
- Zinc
- and many more



# FLEXIBLE SOFTWARE FOR STRAIGHTFORWARD CONTROL

The **IONIC Analyzer** is equipped with a graphical user interface for easy access to your analyses and results. There are multiple user levels offered in the software which are suitable for any operator. With up to 30 programmable steps available for each analysis, **the IONIC** offers more than enough flexibility to adjust to the needs of any user.



Main Analysis Screen



Application Method

Validation, cleaning, and calibration are standard features built in to the analyzer which assist in the optimization of the system and help ensure the most accurate results are obtained. A graphical overview of the most important data from your application is available at your fingertips.



Alarm Notification

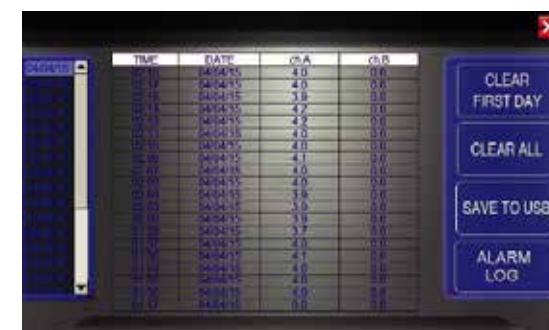


Method-building Choices

Not only will analysis results be logged into the database, alarms can also be managed. For example, an alarm for low reagent levels can appear in the graphical user interface, sent to a control room for further review by the operator, and it can also be logged in the database.



Results Table



Event Log

# SIMPLIFIED LAYOUT FOR EASY ACCESS

The **IONIC Analyzer** is complete, preconfigured and programmed for your specific application. Just connect the power, sample, and reagent lines and the easy-to-use analyzer is fully operational. The high uptimes and minimal maintenance of **the IONIC Analyzer** lead to lower operating costs. **The IONIC Analyzer** as designed ensures the highest level of robustness in the electronics, mechanics, and hydraulics components.

## FEATURES

- Dual compartment enclosure to ensure complete separation between the electronics and the wet part, therefore no leakages possible into the electronics part
- Color touchscreen interface; simple and user-friendly menus and functions
- Multiple user levels
- 3 programmable cycles, with 30 programmable steps per cycle for analysis flexibility
- Long-life LED light source
- Built-in peristaltic pump for sampling
- Thermostated reaction cell
- Automatic validation and automatic cleaning
- 2 sample streams can be monitored
- Up to 3 reagents can be added – simply add a pump for additional reagents, as shown below:



Layout of the wet part of the IONIC Analyzer for the addition of 1, 2, and 3 reagents.



# TECHNICAL SPECIFICATIONS

Small Dimensions	380 × 210 × 600 mm
Analysis Method	Differential photometric absorbance
Analysis Frequency	Freely programmable, near-continuous analysis
Installation	Wall mount or bench top support
Ingress Protection	IP54
User Administration	Password protected input on 2 levels
Digital Inputs	Online on/off, remote start/stop, sample override, etc.
Digital Outputs	Analyzer on, online fault alarm, no sample flow 1 and 2, low reagent level alarm, calibration error, validation error, result alarm, etc.
Analog Outputs	2 analog outputs, 4-20 mA
Serial Interface RS232	MODBUS Protocol
Data Logger	For alarms and results, integrated with USB download function



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