

# Regulatory compliance testing made easy

Thermo Scientific products for drinking water quality and security



# Drinking water analysis Municipal drinking water treatment

Millions of Americans depend on public and private systems for their high-quality drinking water. In fact, there are more than 160,000 public water systems alone that reliably meet the needs of the country every day.

Drinking water safety is clearly a critical priority. Yet the number of threats to water safety continues to grow daily, and include animal and human waste, improper disposal of chemicals, pesticides, and deep earth injection of hazardous materials. Contamination is also a threat due to improper water treatment and disinfection procedures, as well as from poorly maintained water distribution systems.

The U.S. Environmental Protection Agency, through the Safe Drinking Water Act, has established national health-based standards that address both man-made and naturally occurring contamination. Compliance requires consistent, accurate measurement of water parameters performed in the lab, field, and online. While many measurements can be made in the lab, key variables such as pH, conductivity, fluoride, and chlorine can also be measured online in real-time to warn immediately if limits are exceeded.

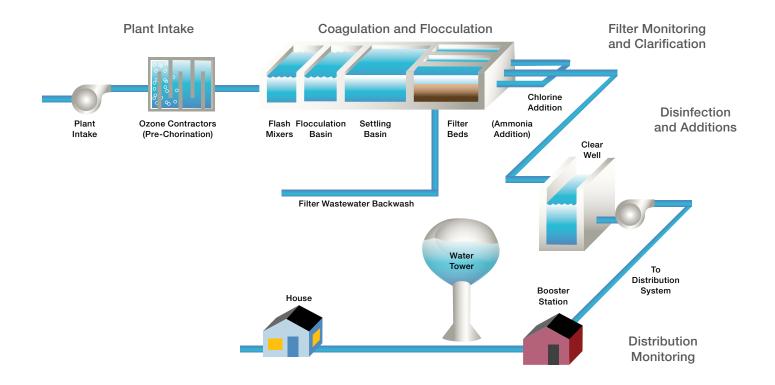






Thermo Scientific<sup>™</sup> Orion<sup>™</sup> Star<sup>™</sup> T900 Series Acid-base, Redox, and Ion Titrators

- Helps increase laboratory productivity by automating titrations
- Offers easy-to-use navigation from setup to live titration analysis to data transfer on large touchscreen
- Create and save up to ten custom user-defined methods or use preprogrammed protocols



#### Thermo Scientific<sup>™</sup> products for drinking water treatment by process

	Plant Intake	Coagulation and Flocculation	Filter Monitoring and Clarification	Disinfection and Additions	Distribution Monitoring
AquaSensors <sup>™</sup> DataStick <sup>™</sup> Wide-Range Turbidity Measurement System	٠	•	•		
AquaSensors <sup>™</sup> AquaClear <sup>™</sup> Low-Range Turbidimeter			•		
AquaPro <sup>™</sup> Multi-Input Intelligent Process Analyzer	٠	•	•	•	•
AquaSensors <sup>™</sup> DataStick <sup>™</sup> pH Measurement System	•	•	•		
AquaSensors <sup>™</sup> DataStick <sup>™</sup> Dissolved Ozone Measurement System				•	
AquaSensors <sup>™</sup> AnalogPlus <sup>™</sup> Differential pH Sensors	٠	•	•		
AquaSensors <sup>™</sup> AquaClear <sup>™</sup> Low-Range Turbidimeter			•		
Orion <sup>™</sup> AQUAfast <sup>™</sup> AQ4500 Turbidity Meter			•		•
Orion <sup>™</sup> AQUAfast <sup>™</sup> AQ3700 and AQ3170 Colorimeters				•	•
Orion <sup>™</sup> Chlorine XP Water Quality Analyzer	٠			•	٠
Orion <sup>™</sup> 8010cX Ammonia Analyzer	٠				
Orion <sup>™</sup> Star <sup>™</sup> A Series Benchtop and Portable Meters for pH, ion, conductivity and dissolved oxygen analysis	٠	•		٠	٠
Orion <sup>™</sup> pHR Process ROSS <sup>™</sup> Electrode		•	•		
Orion <sup>™</sup> AquaMate <sup>™</sup> UV-Vis Benchtop Spectrophotometers				•	
Orion <sup>™</sup> 2109XP Fluoride Analyzer				•	
Orion Star T900 Series Acid-base, Redox, and Ion Titrators	٠				•

## Featured products



### AquaSensors AquaClear Low-Range Turbidimeter

Designed to deliver highly accurate turbidity measurements in drinking water applications.

- Simple to operate
- Meets or exceeds USEPA method 180.1
- Pre-calibrated measurement
- Plug-and-play sensor heads
- Seamless integration with industrial control systems



#### Orion 8010cX Ammonia Analyzer

- EPA approved colorimetric method for 0.02 to 500 mg/L detection range
- Low reagent consumption, lower operation costs, and reduced chemical waste production (5 L/ month)
- Robust designed fluid handling components to provide reliable and accurate measurements
- Color touchscreen with intuitive menu



### AquaSensors DataStick pH Measurement System

- Built-in electronics are encapsulated and sealed, and protected from moisture and humidity; seamless integration with industrial control systems
- Differential pH measurement
- Plug-and-play sensor heads
- Pre-calibrated sensor (no field calibration)
- Replaceable quad junction salt bridges

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# Featured products



### Orion pHR Process ROSS Electrode with AquaPro Multi-Input Analyzer

Fast, accurate, drift-free pH measurements in online applications. Minimal maintenance and long-term reliability provide low cost of ownership.

- Unique ROSS drift-free reference system provides long lifetime
- Enables accurate and reproducible results
- Exceptional pH response to extreme temperature changes
- Easy-to-use and configurable AquaPro multi-channel analyzer



### Orion 2109XP Fluoride Analyzer

Compliance with drinking water regulations requires consistent, accurate online monitoring of fluoride in water. The Orion 2019XP fluoride analyzer measures and controls fluoride levels between an optimum range of 0.7–1.2 mg/L as recommended by the US Department of Health and Human Services to prevent tooth decay. The EPA national primary drinking water standard enforced limit is 4 mg/L.

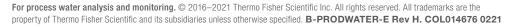
- Implements recognized EPA method for fluoride analysis using an ion selective electrode (ISE)
- Eliminates problems with turbidity and suspended solids in samples
- Correlates to online IC for QA/QC validation

### Leaders in sensing technology

From supplying safe drinking water or reliably controlling wastewater treatment processing, to delivering significant value to industrial water treatment providers – our water experts can help you meet your application challenges. Thermo Scientific process water analysis measurement products are designed for flexibility, ease of use, and low cost of operation in water treatment, offering accuracy you can trust with confidence year after year. Select from our digital plug-and-play systems, advanced optical DO sensors, and a broad portfolio of differential and analog measurement capabilities to build your water quality solution.

### Find out more at thermofisher.com/processwater

**Thermo Fisher** S C I E N T I F I C





### Orion Chlorine XP Online Water Quality Analyzer

Measures free, total, and total combined chlorine with a colorimeter.

- Simple, quick installation and operation
- Auto calibration and auto self-cleaning
- Designed for low maintenance, more online operation