

Great Wines Start with Great Chemistry

Analysis tools that make the difference you can taste

Help ensure product quality and exceptional taste throughout the winemaking process with Thermo Scientific™ Orion™ Automated Titrators, pH and ion selective electrodes, meters and solutions. Our instruments and solutions have been delivering accurate measurements of critical parameters for over 50 years. Thermo Scientific Orion analysis instruments combine excellent instrument features with proven electrode technology to provide a complete package to meet your demanding quality standards. Choose from an assortment of standard measurement kits below, or pick-and-choose from our selection of individual products based on the type of analysis you are performing.



Dissolved Oxygen Analysis

Oxygen exposure can cause adverse effects during the winemaking process, including browning, aroma and flavor modification, and structural softening. For these reasons, dissolved oxygen (DO) measurement is extremely important for wineries. Optical DO sensor technology improves measurement efficiency with no required warm up time, maintenance solutions or stirring.



Recommended product: Thermo Scientific™ Orion Star™ A323 Dissolved Oxygen (DO) Meter Kit - STARA3235

This Dissolved Oxygen meter kit includes the tools you need to start testing the oxygen exposure of wine samples, including a dissolved oxygen meter, optical DO sensor and portable carrying case.

pH and Ammonia Nitrogen Analysis

pH and ammonia nitrogen are critical measurements that affect the fermentation process and flavor of wine. pH strongly relates to a wine's stability and quality, while the level of nitrogen during fermentation affects the taste. Titratable acidity is an indicator of how acidic the final product will taste. Ammonia nitrogen is a major component of assimilable nitrogen, which is important to yeast growth and metabolism.



Recommended product: Thermo Scientific™ Orion Star™ A214 pH/ISE Meter pH and Ammonia Kit - STARA2146

This pH and ammonia meter kit includes everything you need to start testing the pH and ammonia nitrogen of wine samples, including a meter, pH electrode, ammonia electrode, temperature probe, stirrer probe, ammonia standards and solutions.

Visual Clarity (Turbidity) Analysis

Accurate visual clarity measurements (turbidity) of wines at various stages of the winemaking process are critical for determining suitability for bottling. An infrared light source allows readings which are not affected by the deep color of red wines or the blush color of rosé wines.



Recommended product: Thermo Scientific™ Orion™ AQUAfast™ Turbidity Meter Kit - AQ3010

This turbidity meter kit includes the tools you need to start testing the turbidity of wine samples, including a turbidity meter, primary standards to verify reporting accuracy, vials and portable carrying case.

pH and Titratable Acidity

pH and titratable acidity (TA) are critical measurements that affect the fermentation process and flavor of wine. pH strongly relates to a wine's stability and quality, while the titratable acidity is an indicator of how acidic the final product will taste.



Recommended Product: Thermo Scientific™ Orion Star™ T910 pH Titrator Kit - START9102

This Orion Star T910 pH titrator kit is designed for dedicated acid-base titrations including titratable acidity of juices and wines. Titration techniques include equivalence point titrations and preset pH endpoint titrations for versatile sample analysis as well as a direct pH measure function. The kit includes automated titrator, ROSS™ Sure-Flow™ pH electrode, temperature probe and stirrer probe.

Trust Thermo Scientific products for your wine analysis

In addition to the recommended standard measurement kits on the front of this flyer, we offer additional products that address chemical analyses critical to winemaking, depending on your needs and budget. Refer to the chart below, or call your Thermo Scientific Orion distributor to find the best solution for your requirements.

Depending on your sample throughput needs and budget, we have listed our automated titrator and electrochemistry meters for manual titrations. Our automated titrators can help improve your titrations by simplifying your process and helping to deliver consistently reliable results. Just program it once and the titrator takes care of the rest - including addition of titrant, endpoint determination, results calculation, and data logging.

Type of Analysis	Alternative Products	Relevant Features
pH and Total Acidity	Orion Star T940 all-in-one titrator kit - START9402	Automated solution for total acidity titrations and direct pH analysis plus the ability to perform redox and ion titrations
pH, Total Acidity, Ammonia Nitrogen	Orion Star A211 pH benchtop meter kit – STARA2115	Budget-friendly meter alternative for pH and mV analysis
	Orion Star A321 pH portable meter kit – STARA3215	Portable meter for on-the-spot testing of pH and mV readings
	Orion ROSS Sure-Flow 8172BNWP electrode and Orion stainless steel ATC probe 927007MD for temperature measurement	Sure-Flow pH electrode has very easy-to-clean junction that works best with samples containing viscous or solid materials
	9512BNWP Standard Ammonia Electrode, 951006 ammonia standard, 951211 ionic strength adjuster	Add on to existing pH/mV meter or ion titrator for ammonia nitrogen analysis
Dissolved Oxygen	Orion Star A216 pH/DO benchtop meter kit – STARA2165	Space-saving alternative for combined pH and DO benchtop measurement capabilities
	Orion Star A326 pH/DO portable meter kit – STARA3265	Compact alternative for combined pH and DO portable measurement capabilities
Sulfur Dioxide using ORP	Orion 087020MD optical dissolved oxygen probe	Long 6 meter cable for deep wine vats
	Orion 9180BNMD ORP/ATC electrode	Built-in ATC temperature sensor for convenience
Visual Clarity (Turbidity)	Orion 9678BNWP Sure-Flow ORP electrode, Orion 927007MD ATC temperature probe and Orion 967901 ORP calibration standard	Add on to existing pH/mV meter or redox titrator for sulfur dioxide analysis
	Orion AQUAfast AQ4500 turbidity meter	Added capability to measure using white light or IR LED
Spectrophotometry	Talk to us about Thermo Scientific spectrophotometry products	Match your application requirements and budget

For more information on Thermo Scientific Orion products, call your authorized distributor or visit thermofisher.com/water

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