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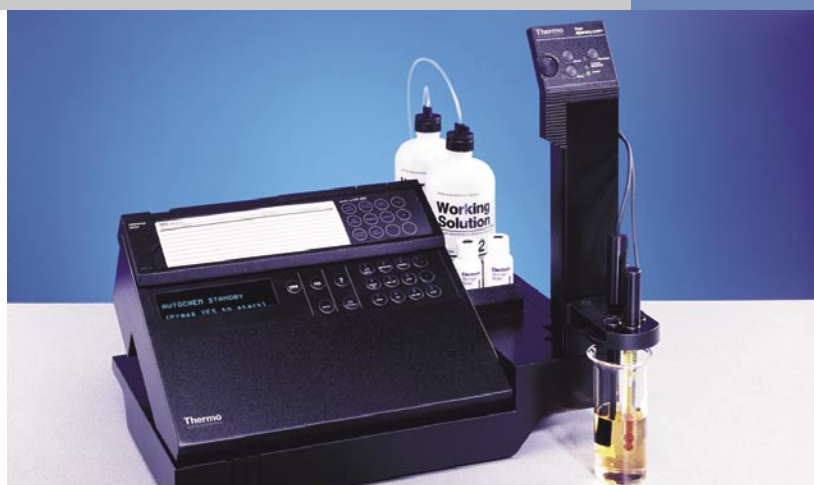
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Orion 960 Titrator

Potentiometric Titration

Thermo's expertise in titration began with Orion's automation of Ion Selective Electrode (ISE) analysis. Over time, it expanded to include an entire product line dedicated to potentiometric analysis.

Orion potentiometric workstations and titration systems make analysis quick, easy and reproducibly accurate. Whether the analysis is surfactants in shampoo, fluoride in drinking water, or Vitamin C in juice, Thermo has the system to automate your measurements.



Potentiometric Titration High Performance Ion Analysis Systems Orion 960 Titrator

- Highly Versatile - Analytical Instrument with Complete Automation Capability
- 12 Preprogrammed Techniques - Automate Titrations, pH and Direct Ion Measurement
- Potentiometric Titrations - Including Acid/Base, Redox, Precipitation and Complexometric

The Orion 960 is intended for use in laboratories where automation is needed to overcome problems of sample throughput or analytical complexity. What differentiates the Orion 960 from other single parameter analyzers or automatic titrators is its versatility. Not only can it be used for performing classical titrations, it can also automate the measurement of any species measurable by ion selective and pH electrodes.

The dispenser is a rotary reciprocating pump. Unlike an automatic burette, the pump has no valves to switch for refilling creating no dead volume. Quick release fittings make it easy to disconnect one bottle and connect another. There's no need to stock spare burettes for fast reagent changes. You can integrate up to eight workstations and an Orion AS3000 Autosampler into one system for maximum versatility.

Orion 960 Titrator

Orion 960 Specifications

	Specification	Benefit
mV	-1600.00 to 1600.00 mV	Wide operating range
Concentration	.00001 to 99999	
pH Range	-2.000 to 19.999	
pH/ISE Calibration Points	5	Calibrate at any range for improved accuracy
Temperature	-5.0 to 105.0 °C	
Power Requirement: Voltage Frequency	110/120/220/240 VAC 50/60 Hz	
Modes	First and Second Derivative Titration Single, Double, Multiple Known Subtraction Single, Double, Multiple Known Addition Pre-set end point Multiple Analate Addition Gran Function, Gran Predict Standardize System Help Analysis pH Read	Better precision Faster than titration One beaker analysis No color interference Sample automatically diluted Less reagent consumption One-step standardization Optimizes method performance Automation accuracy
Methods Saved	Up to 20	Locked methods, no tampering
Display	Custom color vacuum fluorescent with 40 character prompt line	Easy to read
Variable Speed Stirring Paddle	Yes	Mix samples before analysis
Input	Two BNC, two pin tip, dual banana jacks for PT-100 style ATC probe	Dual channel
Output	EA 940: RS232; recorder; Karl Fischer: 4 RS232 ports for connection to EA 940, printer, computer and balance; one 15 pin parallel port	Interface with many accessories
Dimensions Height Width Depth	With Tower 16" 17" 18"	
Case	Splash and Chemical Resistant	Durable
Environmental Requirements	5 to 45 °C and 5 to 85% relative humidity	
Autosampler Option	Yes	Automate up to 45 samples
Agency Approvals	CE	Worldwide operation

Above data generated under optimal/controlled circumstances.

Orion 960 Ordering information

Orion #	Description
096000	960 Titrator PLUS System, complete with EA 940 pH/ISE Meter and Model 960 Titrator Plus Module. Includes: Base assembly, tower assembly, electrode holder, stirrer, two dispenser probes, anti-diffusion dispenser probe with six tips, tubing kit, calibration kit, cable (Models 960 and EA 940), reference tablet, two working solution bottles, two dip tubes and caps, line cords, and instruction manual. User selectable power requirement 100/115/220/240V ±10%.
096002	960 Titrator PLUS Module (Module does not include EA 940). Includes: Base assembly, tower assembly, electrode holder, stirrer, two dispenser probes, one anti-diffusion dispenser probe with six tips, tubing kit, calibration kit, cable (Models 960 EA 940), reference tablet, two working solution bottles, two dip tubes and caps, PROM upgrade kit (to update software in EA 940), line cord, and instruction manual. User selectable power requirement 100/115/220/240 ±10%.