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KF TITRATOR APPARATUS

Website

info@rsolv-lifesciences.com www.rsolv-lifesciences.com

Karl Fischer Volumetric Titrator - POLY KF

RSolv Poly KF - Karl Fischer Volumetric Titrator is an automatic titrator that complements our wide range of products dedicated to efficient and accurate laboratory analysis. The HI903 analyzes for water content ranging from 100 ppm to 100%. This powerful titrator automatically dispenses the titrant, detects the endpoint, and performs all necessary calculations and graphing.

Dynamic Titrant Dosing

The dynamic dosing feature allows for timely and accurate titration results by relating the titrant volume dosed to the mV response from the titration reaction. This provides for larger doses near the beginning of a titration and smaller, more precise doses near the titration endpoint.

Drift Rate Compensation

RSolv Poly KF automatically adjusts the titration calculation to account for the effects of any ambient humidity entering the titration cell. This provides a more accurate result by correcting for water not present in the actual sample.

Titration Results Averaging

Successive results from a titration method may be averaged with recording of the standard deviation.

Titrator Record Keeping

RSolv Titrator database can store information for up to 20 titrants. The database may be programmed to remind a user when to standardize their titrant, reducing error in analysis.

Selectable Endpoint Criteria

RSolv employs a dual platinum pin electrode for bivoltammetric endpoint determination. Users may choose termination criteria based on mV stability times or drift rates.

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Accurate and Reliable Titration Results

- Eliminates errors in manual processes and operator interpretation
- Pre-programmed titration methods automatically detect endpoints and perform calculations
- High-resolution electronic burette with 20,000 steps
- Automatic sample preparation using embedded peristaltic pumps
- High-performance probes for reliable measurements

Easy to Use for all Operators

- Press one button to get the correct result
- Operators of all skill levels can get accurate measurements
- No need for custom programming with RSolv unique application-specific routines
- Simple user interface with large color display that shows the titration curve as it is measuring
- USB ports to quickly and easily capture data to a PC and attach optional keyboard, mouse, or printer

Low Cost of Ownership

- Reduces the amount of reagent used for every titration, cutting the cost of ownership month after month
- Increases lab throughput by allowing the operator to prepare the next sample while the titrator performs the measurement

Improves Lab Safety

- Minimizes direct contact with reagents
- No need for potentially dangerous colored indicators
- Instrument can be easily and safely moved thanks to the compact design

Low Maintenance

- Reliable design significantly reduces downtime
- Extended periods between maintenance routines
- Maintenance is simple and easy to perform

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Specifications

Parameter	Specification
Model	POLY KF
Titration Principle	Karl Fischer Volumetric
Titration Range	100 ppm to 100%
GLP Conformity	GLP and instrument data storage and printing
Titration Resolution	1 ppm to 0.0001%
Measurement Units	%, ppm, mg/g, µg/g, mg, µg, mg/mL, µg/mL, mg/pc
Sample Type	Liquid or solid
Pre-Titration Conditioning	Automatic
Background Drift Correction	Automatic or user-selectable value
Endpoint Criteria	Fixed mV persistence, relative drift stop or absolute drift stop
Dosing Type	Dynamic with optional pre-dispensing rate
Result Statistics	Mean, standard deviation
Dosing Accuracy	±0.1% of full burette volume
Power Supply	100–240 VAC, 50 Hz
Valve	Motor-driven 3-way, PTFE liquid contact material
Tubing	PTFE with light block and thermal jacketing
Dispensing Tip	Glass, fixed position, anti-diffusing
Titration Vessel	Conical with multilead, volume between 100 mL
Solvent Handling System	Sealed system, integrated diaphragm air pump
Connection Type	BNC
Polarization Current	1, 2, 5, 10, 15, 20, 30 or 40 µA
mV Range	2 mV to 1000 mV
mV Resolution	0.1 mV
mV Accuracy	±0.1%
Peripheral Devices	Connections for VGA display, PC-keyboard, parallel printer, USB device input, RS232
Dosing Pump Resolution	1/400000 of the burette volume (0.125 µL per dose)
Stirrer Type	Magnetic, optically regulated, digital stirrer
Stirrer Speed	200 to 2000 rpm; resolution 100 rpm
Titrator Methods	Up to 500 methods (standard and user-defined)

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Accessories