Karl Fischer Titrator - Volumetric & Coulometric KF Moisture Analyzer - 3 µg-250 mg Water

Model **MSTITR-50VCSWISS** | Brand **Master Science**





The Master Science Karl Fischer Titrator brings volumetric and coulometric KF titration together in one instrument, so the same unit can measure percent-level water and trace moisture down to a few micrograms. A 7-inch high-contrast touchscreen guides each method from titer determination to the final result.

KEY HIGHLIGHTS

- One instrument, two techniques
- Trace and high moisture covered
- Safer reagent handling
- Accurate results

AT A GLANCE

100 µg to 250.0 mg VOLUMETRIC WATER RANGE	**3.0 µg to 200 mg** COULOMETRIC WATER RANGE
0 to 2000 mV / 0.1 mV MV RANGE / RESOLUTION	**±0.5 %, fluctuation ±0.2 %/10 min** GENERATOR CURRENT ACCURACY

Request a Quotation
Contact us for pricing, configuration options and delivery details.

support@themsci.com
www.themsci.com

Scan to view online

Overview

Oven sampling is supported for solids, gases and samples that do not dissolve readily, and a sealed solvent manager handles filling, draining and burette cleaning safely.

> For acid-base and redox titrations, see the Master Science automatic potentiometric titrator.

Overview

- Auto titration and titer determination
- Oven and oven blank methods
- Solvent manager fills, drains and cleans the burette

Overview

- Trace water down to 3 µg
- Oven, blank and coefficient correction methods
- Generator electrode included

Key Benefits

One instrument, two techniques
the Master Science Karl Fischer Titrator switches between volumetric and coulometric KF without a second unit.

Trace and high moisture covered
water from 3 µg to 250 mg is measured with ≤ 0.3 % repeatability.

Safer reagent handling
the solvent manager uses leak-proof and anti-spill bottles.

Accurate results
automatic drift compensation corrects for moisture ingress.

Compliance support
user levels, GMP logs and GLP storage track every result.

Technical Specifications

GENERAL

Brand	Master Science
Model Number	MSTITR-50VCSWISS
SKU	MSTITR-50VCSWISS
Titration Types	Volumetric and coulometric Karl Fischer
Volumetric Water Range	**100 µg to 250.0 mg**
Volumetric Resolution	1 µg
Coulometric Water Range	**3.0 µg to 200 mg**
Coulometric Resolution	0.1 µg
Water Repeatability	≤ 0.3 %
Units	µg, mg, %, ppm, µg/mL, mg/L
mV Range / Resolution	**0 to 2000 mV / 0.1 mV**
Methods	Auto titration, titer determination, oven, oven blank, coefficient correction
Drift Correction	Automatic or manual
User Management	Three levels with passwords
Drift from ambient humidity	automatic drift correction keeps results accurate.

POWER

Polarisation Current	1 to 200 µA, ±3 %, fluctuation ±2.5 %/30 min
Generator Current Accuracy	**±0.5 %, fluctuation ±0.2 %/10 min**
Power Supply	AC 100 to 240 V, 47 to 63 Hz

DISPLAY & DATA	
Data Storage	2000 titration records (GLP)
Interfaces	RS232 printer, USB PC, U-disk CSV/PDF, barcode scanner, oven, balance
Display	7-inch color touchscreen
Data integrity requirements	GMP logs and user control are available.

DIMENSIONS & WEIGHT	
Dimensions	240 × 370 × 270 mm
Net Weight	About 4 kg

COMMON LABORATORY PROBLEMS AND HOW THIS KF TITRATOR HELPS	
Common Laboratory Problems and How This KF Titrator Helps	How the Master Science Karl Fischer Titrator helps with typical moisture testing problems:
Need for two separate KF instruments	both techniques run on one unit.
Spills of KF reagents	sealed solvent handling protects staff.
Insoluble samples	oven sampling releases water before titration.

Applications

The Master Science Karl Fischer Titrator is used for water determination in: Pharmaceutical APIs and excipients Petroleum products, oils and transformer oil Plastics, polymers and powders Food ingredients and edible oils Solvents and fine chemicals

Data

- 2000 stored results
- CSV and PDF export
- PC, printer, barcode and balance connection

Standard Accessories Included

- Solvent manager
- 10 mL burette
- Volumetric titration vessel with measuring electrode
- Coulometric titration vessel with measuring electrode
- Generator electrode

Optional Accessories

- KF oven
- GMP software
- Printer, barcode scanner and balance