Karl Fischer Moisture Analyzer - GMP KF Titration System - 3 µg Trace Water - ≤0.3% RSD

Model **MSTITR-50VSWISS, MSTITR-50CSWISS** | Brand **Master Science**







The Master Science Karl Fischer Moisture Analyzer is designed for regulated laboratories that need traceable water content results. It is available as a volumetric model for samples from 100 µg to 250 mg of water, or as a coulometric model for trace levels from 3 µg.

KEY HIGHLIGHTS

- Traceable results
- High repeatability
- Large GLP memory
- Complete peripheral support
- Safe reagent management

AT A GLANCE

0 to 2000 mV / 0.1 mV
MV RANGE / RESOLUTION

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

support@themsci.com
www.themsci.com

Scan to view online

Overview

Both versions offer three-level user management, method, sensor and titrant management, GMP logging and storage of 2000 GLP-compliant results, together with oven sampling for difficult matrices.

Key Benefits

Traceable results
the Master Science Karl Fischer Moisture Analyzer records every change in GMP logs with three user levels.

High repeatability
≤ 0.3 % RSD on both volumetric and coulometric versions.

Large GLP memory
2000 titration results are stored for review and export.

Complete peripheral support
printer, barcode reader, balance and oven connect directly.

Safe reagent management
a closed solvent manager handles KF chemicals.

Compare with the Master Science compact KF moisture titrator for smaller laboratories.

Technical Specifications

GENERAL

Brand	Master Science
Model Number	MSTITR-50VSWISS, MSTITR-50CSWISS
SKU	MSTITR-50VSWISS, MSTITR-50CSWISS
Models	MSTITR-50VSWISS (volumetric), MSTITR-50CSWISS (coulometric)
Water Range	**100 µg to 250.0 mg (volumetric); 3.0 µg to 200 mg (coulometric)**
Water Resolution	1 µg (volumetric); 0.1 µg (coulometric)
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, oven, oven blank, coefficient correction
User Management	Three levels with passwords; GMP logs

POWER

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

DISPLAY & DATA

Data Storage	2000 records (GLP)
Interfaces	RS232 printer, USB PC, U-disk CSV/PDF, barcode scanner, oven, balance
Display	7-inch color touchscreen

DIMENSIONS & WEIGHT

Dimensions	240 × 370 × 270 mm
Net Weight	About 4 kg

COMMON LABORATORY PROBLEMS AND HOW THIS ANALYZER HELPS

Common Laboratory Problems and How This Analyzer Helps	How the Master Science Karl Fischer Moisture Analyzer supports regulated moisture testing:
Incomplete audit trails	GMP logs track users and changes.
Transcription errors	balance and barcode inputs feed data directly.
Variable trace moisture results	coulometric detection with ≤ 0.3 % RSD.
Reagent handling risk	the solvent manager keeps chemicals enclosed.
Solids that will not dissolve	oven methods transfer water as vapour.

The Master Science Karl Fischer Moisture Analyzer is used in

- **Pharmaceutical QC under GMP**
- **Petrochemical and transformer oil testing**
- **Polymer and plastic resin drying control**
- **Food, flavour and cosmetic ingredients**

Solvent purity in chemical plants

Volumetric Model

- Auto titration and titer determination
- Oven and oven blank methods
- Burette filling, draining and cleaning by solvent manager

Coulometric Model

- Trace water from 3 µg
- Oven, blank and coefficient correction
- Generator electrode included

Data and Compliance

- GMP log and three-level users
- CSV/PDF export, method import/export
- Barcode scanner and balance input

Standard Accessories Included

- Volumetric version: solvent manager, 10 mL burette, volumetric vessel, measuring electrode
- Coulometric version: solvent manager, coulometric vessel, measuring electrode, generator electrode

Optional Accessories

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