

KFT41

Karl Fischer Titrator (volumetric + coulometric) • 0.1–250 mg • vol. • 10 µg – 20 mg • coul. • $\pm(5\% + 3)$ µg • Drift correction

KFT41 Karl Fischer Titrator (volumetric + coulometric) is a Karl Fischer titrator that combines volumetric titration (0.1–250 mg H₂O, $\leq 0.5\%$) and coulometric titration (10 µg – 20 mg H₂O, $\pm(5\% + 3)$ µg, $\leq 3\%$) in one instrument. It supports KF titration and titer determination, automatic reagent filling, purging and mixing, automatic or manual background drift correction, a generator cell with diaphragm, detailed display of methods and curves and 200 GLP data sets per method type.

KARL FISCHER TITRATOR (VOLUMETRIC + COULOMETRIC)

0.1–250 MG • VOL.

10 MG – 20 MG • COUL.

$\pm(5\% + 3)$ MG

DRIFT CORRECTION

GLP

RS-232

Document type: **Technical Specification Sheet**

Product: **KFT41 Karl Fischer Titrator (volumetric + coulometric)**

SKU: **PRO6104**

Format: **A4 landscape • 5 pages**

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KFT41 • Karl Fischer Titrator (volumetric + coulometric)



Titration cells • volumetric cell and coulometric generator cell

MODEL / SKU

**KFT41
PRO6104**

ADDRESS / HQ

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SI-3255, Slovenia**

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KFT41 • technical specification

Karl Fischer Titrator (volumetric + coulometric) • Volumetric KF titration + Coulometric KF titration

0.1–250 MG • VOL.

10 MG – 20 MG • COUL.

 $\pm(5\% + 3)$ MG

DRIFT CORRECTION

— Water determination for chemicals, oils, pharma and food

Product Overview

Application profile

Oils and chemicals: water in solvents, raw materials and intermediates at % and ppm level.

Trace moisture: transformer and lubricating oils, solvents and gases at μg level.

Pharma and food: moisture in APIs, excipients, powders and food products.

QC laboratories: routine release testing with GLP data and printouts.

Key features

Volumetric • Water range: 0.1–250 mg H₂O

Volumetric • Repeatability: $\leq 0.5\%$

Coulometric • Water range: 10 μg – 20 mg H₂O

Coulometric • Accuracy: $\pm(5\% + 3)$ μg

Drift correction: automatic / manual background drift correction

Core technical summary

Parameter	Specification
Model	KFT41
SKU	PRO6104
Instrument type	Karl Fischer Titrator (volumetric + coulometric)
Volumetric • Water range	0.1–250 mg H ₂ O
Volumetric • Repeatability	$\leq 0.5\%$
Coulometric • Water range	10 μg – 20 mg H ₂ O
Coulometric • Accuracy	$\pm(5\% + 3)$ μg
Coulometric • Repeatability	$\leq 3\%$
Units	mg, mg/L, %, ppm; μg , $\mu\text{g/mL}$
Data memory	200 titration data sets, GLP

Advantages

Reagent handling: automatic filling, purging and mixing of reagents.

Two methods: volumetric for % / high water, coulometric for ppm / trace water.

Generator cell: with diaphragm — the generator current is selectable.

Settable parameters: units, polarization current, stirring, endpoint potential and stop criterion.

VOLUMETRIC

0.1–250 mg

COULOMETRIC

 10 μg – 20 mg

ACCURACY

 $\pm(5\% + 3)$ μg

DATA MEMORY

200 sets

Technical values are provided for product selection. The delivered configuration, electrode type and accessory set are confirmed in the official COLO.Science quotation.

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Technical Parameters

Parameter	Specification	Parameter	Specification
Model	KFT41	Generator cell	with diaphragm
SKU	PRO6104	Modes	KF titration and titer determination
Volumetric • Water range	0.1–250 mg H ₂ O	Reagent handling	automatic filling, purging and mixing of reagents
Volumetric • Resolution	0.1 mg	Drift correction	automatic / manual background drift correction
Volumetric • Polarization current	1 µA ±0.2 µA; 50 µA ±10 µA	Units	mg, mg/L, %, ppm; µg, µg/mL
Volumetric • Repeatability	≤0.5 %	Data memory	200 titration data sets, GLP
Coulometric • Water range	10 µg – 20 mg H ₂ O	Display	LCD, methods, curves and results in detail
Coulometric • Polarization current accuracy	±0.2 µA	Data output	RS-232 (printer)
Coulometric • Generator current	10.72 / 20 / 53.61 / 107.2 mA (1 / 1.86 / 5 / 10 µg H ₂ O/s)	Power supply	AC adapter, 100–240 V AC
Coulometric • Generator current accuracy	±0.5 %	Dimensions	340 × 400 × 400 mm
Coulometric • Accuracy	±(5 % + 3) µg	Weight	approx. 10 kg
Coulometric • Repeatability	≤3 %		

Specification notes

Method choice: volumetric KF for samples with more than about 0.1 % water, coulometric KF for ppm and trace levels.

Reagents: KF reagents are ordered separately; use reagents matching the method (titrant and solvent, or anolyte and catholyte).

Good practice: keep the cell sealed, replace the desiccant in the drying tubes regularly and let the drift stabilize before each determination.

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Accessories and consumables



Volumetric titration cell with measuring electrode

Sealed titration vessel with double platinum measuring electrode, drying tube and magnetic stirring.

Standard delivery



Coulometric generator cell with diaphragm

Electrolytic cell with generator electrode (diaphragm) and measuring electrode for trace moisture.

Standard delivery



Solvent and waste bottle holder

Holds the solvent and waste bottles for automatic filling, purging and mixing of the KF reagents.

Optional

More accessories and consumables

SKU	Item	Use	Status
10 mL	Burette 10 mL	Volumetric KF titration	Standard delivery
—	Karl Fischer reagents (titrant, solvent, anolyte / catholyte)	Consumables — ordered separately	Optional
—	Molecular sieve / desiccant for drying tubes	Protection of the cell from ambient moisture	Optional
—	Syringes and needles for sample injection	Liquid sample dosing	Optional
—	RS-232 printer	GLP printout of results	Optional

Standard delivery: KFT41 unit, volumetric titration cell with measuring electrode, 10 mL burette, coulometric generator cell. KF reagents are not included. Standard delivery is confirmed in the quotation.

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KFT41 standard delivery

Ordering information

Item	Value
Model	KFT41
SKU	PRO6104
Instrument type	Karl Fischer Titrator (volumetric + coulometric)
Standard delivery	volumetric titration cell with measuring electrode, 10 mL burette, coulometric generator cell
Not included	KF reagents, printer
Power supply	AC adapter, 100–240 V AC

Configuration checklist

Water content: % level (volumetric) or ppm / μg level (coulometric).

Sample: liquid, solid or gas; solubility in the KF reagent.

Reagents: one- or two-component titrant, or coulometric analyte / catholyte.

Documentation: RS-232 printer for GLP printouts.

MANUFACTURER AND SUPPORT

COLO Lab Experts
Polje ob Sotli 4, SI-3255, Slovenia

Selection guidance: KFT41 is chosen for laboratories that need both volumetric and coulometric KF titration in one instrument. COLO.Science helps you choose cells and reagents.

QUICK CONTACT

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 sales@colo.si

 +386 70 713 437

COLO.SCIENCE • KARL FISCHER TITRATOR CONFIGURATION SUPPORT

Need help choosing the right Karl Fischer method?

Tell us the sample, the expected water content and the number of samples. COLO.Science will confirm the KFT41 configuration, cells and reagents.

Web: colo.si

Ask us:

Price and current discount, delivery time, electrode selection for your sample, calibration standards, installation and operator training, spare electrodes and accessories — write to sales@colo.si or call us.

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