Automated volumetric KF titration including sample preparation

MATi 11

Fully automated system for volumetric Karl Fischer water content determination in up to 53 samples. This system is controlled with OMNIS software and consists of an 815 Robotic USB Sample Processor XL, a 901 Titrando, a Polytron PT 1300 D and extensive accessories.

The samples are weighed out into beakers, sealed to protect against humidity and placed on the rack. Before the actual titration, a defined volume of KF reagent is added and the sample is pulverized with the help of a Polytron. The water that is released is titrated afterwards. Even samples of poor solubility, e.g., tablets, can be analyzed without difficulty with this method. The use of solubility promoters can be avoided in this way.

Below, the accessories are grouped into Scope of delivery and Optional accessories.
Please keep this printout at hand for ordering replacement material.
These lists may be subject to change.

Scope of delivery MATi 11

Qt.	Order no.	Description

Metrohm

| 1 PCS | 2.136.0100 | Polytron PT 1300 D |

Polytron PT 1300 D - Metrohm version

Homogenizer that can be controlled directly by OMNIS Software, tiamo™ or Touch Control.

The Polytron PT 1300 D is comprised of a control unit and a drive. The coupling system on the drive permits simple and rapid replacement of the aggregates without additional tools.
Solid samples can be pulverized without difficulty. However the instrument is also highly suitable for ensuring thorough mixing in viscous samples.

| 1 PCS | 2.772.0120 | 772 Pump Unit – aspirate |

Peristaltic pump for direct connection to Sample Processors. The "Aspiration" version contains extensive accessories for the aspiration of titered-out solutions.

| 2 PCS | 2.786.0040 | 786 Swing Head |

Additional equipment for Robotic Sample Processors XL without titration or transfer heads.

| 2 PCS | 2.800.0010 | 800 Dosino |

The 800 Dosino is a drive with write/read hardware for intelligent Dosing Units. With fixed cable (length 150 cm).

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1 PCS	2.815.0130	815 Robotic USB Sample Processor XL (2T/0P)

Robotic USB Sample Processor XL for the automatic processing of routine samples in series with large quantities and for complex sample preparation or parallel runs. Up to four pumps (membrane or peristaltic) and three dosing devices for Liquid Handling tasks can be connected.

Because of the multitude of application variants, rack, stirrer, titration head, robotic arm, Swing Head, and sample vessels must be tailored to the application and ordered separately.

The control is "stand alone" using Touch Control. The following software products can be selected for the PC control: tiamo™ titration software, MagIC Net chromatography software, viva voltammetry software, or OMNIS.

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1 PCS	2.901.0010	901 Titrando

The Karl Fischer Titrando for the modern titration laboratory

In addition to the Karl Fischer mode (KFT), the high-end titrator is also equipped with the SET mode and can thus perform titrations to a predefined endpoint.

"iTrode ready": As a result of the high-resolution, galvanic measuring interface – now also for the first time with additional digital measuring input for the intelligent "iTrodes" electrodes – it is additionally possible to perform pH measurements with a maximum of precision.

Thanks to the four MSB connectors, up to four Dosinos can be connected to the 901 Titrando. These can be used not only for titration, but also for the automated addition of sample, standard and auxiliary solutions such as solubility promoters. Furthermore, you have all of the Liquid Handling commands at your disposal, which means that the aspiration of exhausted reagent and the addition of fresh solvent can also be automated.

For use with OMNIS Software, *tiamo* software, or Touch Control unit. Compliance with GMP/GLP and FDA regulations such as 21 CFR Part 11, if required

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Metrohm

1 PCS	6.06000.000	OMNIS Software storage device

License-based PC program for controlling complex OMNIS analysis systems.

- Sample-oriented operating procedures with numerous templates
- Graphical method editor with numerous templates
- Clearly organized and professional sample lists
- Management of instruments, work systems, sensors, solutions
- Dialog languages: German, English, Chinese

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1 PCS	6.06002.010	OMNIS Stand-Alone: 1 instrument license

1 instrument license for operating one additional OMNIS instrument in OMNIS Stand-Alone.

The following instruments are supported:

- OMNIS instruments
- Metrohm USB devices
- RS-232 instruments (e.g., balance)

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1 PCS	6.06003.012	OMNIS stand-alone license with 2 instrument licenses

Enables stand-alone operation of the OMNIS Software on a Windows™ computer.

Features:

- The license already includes two OMNIS instrument licenses.
- Must be activated via the Metrohm licensing portal.
- Not transferable to another computer.

Ω Metrohm

| 1 PCS | 6.1459.300 | Sample beaker, plastic (PP), 120 mL, 250 pieces |

Sample beaker, plastic (polypropylene, PP), 120 mL, suitable for sample racks: 6.2041.470, 6.2041.840, 6.2041.850, 6.2068.010, 6.2068.020, 6.2068.030, and 6.9920.141, 250 pieces

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| 1 PCS | 6.1462.030 | Robotic arm with transfer head for 786 Swing Head, left swinging |

Transfer robotic arm for liquid handling purposes

| 2 PCS | 6.1805.120 | FEP tubing / M6 / 100 cm |

With light and kink protection

| 1 PCS | 6.1808.230 | Adapter M6 / M8 inner |

Adapter with M6 and M8 inner threads

Metrohm

| 1 PCS | 6.1821.000 | Aspiration tube |

For KF Sampler

| 53 PCS | 6.2037.080 | Foil holder |

Foil holder for 120 mL PP beaker (6.1459.300)

| 1 PCS | 6.2134.110 | Cable RS-232 DB9 socket f – DB9 plug |

Connecting Metrohm RS-232 interface (DB9) to a Custom DP40 printer.
For Titrinos or 756/831 KF Coulometer. RS-232 extension cable (1:1)

| 1 PCS | 6.2151.000 | Cable USB A – mini-DIN 8-pin |

Controller cable

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1 PCS	6.2711.070	Drip pan for 789/815/855

Drip pan for 789, 815, 855 Robotic Sample Processors XL

1 PCS	6.2820.000	Al foil

1000 circular sheets of 80 mm diameter. Thickness: 0.010 mm. Used together with 6.2037.030 Foil holder for 6.1432.210 Sample beaker. For 674 KF Sample Changer

1 PCS	6.3032.210	807 Dosing Unit 10 mL

807 Dosing Unit with integrated data chip with 10 mL glass cylinder and light protection, mountable to a reagent bottle with ISO/DIN GL 45 glass thread. FEP tubing connection, antidiffusion tip.

1 PCS	6.3032.250	807 Dosing Unit 50 mL

807 Dosing Unit with integrated data chip with 50 mL glass cylinder and light protection, mountable to a reagent bottle with ISO/DIN GL 45 glass thread. FEP tubing connection, antidiffusion tip.

Metrohm

1 PCS   6.9012.010   Dispersing aggregate for Polytron, 157 mm

Special dispersing aggregate (Metrohm version) with protruding knives

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1 PCS   6.9903.048   KF indicator electrode for automation

Double platinum wire electrode for automation with fixed cable, plug F
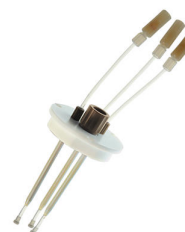

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1 PCS   6.9914.139   Titration head with reinforced buret tips

Titration head with 3 reinforced buret tips, one M10 screw connection and one opening for an assembly (Polytron PT 1300 D).

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1 PCS   6.9914.140   Robotic arm with holder for titration head and
                                   Polytron holder, right-swinging

Robotic arm with holder for one titration head and one Polytron, for use with a 786 Swing Head.

Ω Metrohm

1 PCS   6.9920.141   Sample rack, 53 x 120 mL, (PP)

Sample rack for 815 Robotic USB Sample Processor XL, 855 Robotic Titrosampler "Basic", suitable for 53 sample beakers. The following sample beakers can be used: 6.1459.300, 6.1459.307.

Plastic: Polypropylene (PP)