



# 852 Titrando with generator electrode with diaphragm

2.852.0050

Coulometer including generator electrode with diaphragm, 801 Magnetic Stirrer, and complete volumetric titration cell.

Coulometry is the ideal method for water content determination in liquids, solids, and gases when it comes to water content determination in the trace range (10 µg to 10 mg absolute water). In addition, coulometry is an absolute method and thus no titer determination is necessary.

Recommended coulometry measuring range: 10 µg - 200 mg absolute water

The 852 Titrando controls not only coulometric, but also volumetric Karl Fischer titration.

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.

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 2.852.0050

| Qt.   | Order no.  | Description   |
|-------|------------|---------------|
| 1 PCS | 1.852.0010 | 852 Titrandos |



|       |            |             |
|-------|------------|-------------|
| 1 PCS | 1.801.0010 | 801 Stirrer |
|-------|------------|-------------|

Magnetic stirrer without stand for supplementing the Titrino plus, Dosimat plus, Titrandos, Sample Processors, 805 Dosimats and 780/781 pH Meters. With permanently attached cable for MSB (Metrohm Serial Bus).



|       |             |                                        |
|-------|-------------|----------------------------------------|
| 1 PCS | 6.00346.100 | Double Pt ring electrode for volumetry |
|-------|-------------|----------------------------------------|

Indicator electrode for Karl Fischer titration which, thanks to its two fused platinum rings, is more robust and easier to clean than the conventional platinum pin electrode (6.0338.100).



|       |            |                                         |
|-------|------------|-----------------------------------------|
| 1 PCS | 6.0341.100 | Double Pt-wire electrode for coulometry |
|-------|------------|-----------------------------------------|

Indicator electrode used for coulometric Karl Fischer titration.



1 PCS

6.0344.100

Generator electrode with diaphragm

Generator electrode with diaphragm for coulometric Karl Fischer titrations, SGJ 29/22.

This generator electrode is well suited for:

- samples with very low absolute water contents < 50 ppm
- coulometric water content determination in oil samples
- applications where ketone reagents are used
- applications where low-conducting reagents are used (addition of chloroform, xylene >10%)



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1 PCS

6.1244.040

Set of seals

Set of seals for 6.1414.030. The set is comprised of one seal and various O-rings.



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1 PCS

6.1403.030

KF adsorber tube for coulometer cell

For KF coulometers.



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1 PCS

6.1403.040

KF Adsorber tube

Used with KF equipment. Including cover and O-ring.



1 PCS

6.1414.030

KF titration vessel lid with 5 openings

For volumetric KF titrations.



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1 PCS

6.1415.220

Titration vessel / 20-90 mL



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1 PCS

6.1415.250

Titration vessel / 50-150 mL



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1 PCS

6.1437.000

SGJ stopper SGJ 14



1 PCS

6.1446.060

Stopper / B-14/15 / M10



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2 PCS

6.1448.010

Septum 12 mm, 5 pieces

Set of 5 items.



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2 PCS

6.1448.020

Septum 16 mm, 5 pieces

Set of 5 pcs.



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1 PCS

6.1464.320

KF titration vessel / 80-250 mL / coulometric



2 PCS

6.1903.020

Stirring bar / 16 mm

Stirring Bar with magnetic core, PTFE coated, length 16 mm



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3 PCS

6.1903.030

Stirring bar / 25 mm

Stirring bar with magnetic core, PTFE covering, length 25 mm.



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1 PCS

6.2001.090

Base plate on both sides

Double stand for attaching 2 x 801, 803, 804 to a Titrand



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2 PCS

6.2013.010

Clamping ring

For support rods with a diameter of 10 mm.



2 PCS

6.2016.030

Support rod / 250 mm



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2 PCS

6.2043.005

Holding clip for bottles

Holding spring for reagent bottles in exchange units.



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1 PCS

6.2047.020

Titration vessel holder

Titration vessel holder for coulometric cells. Used with 756, 831 KF Coulometer



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2 PCS

6.2104.020

Electrode cable / 1 m / F

For connecting electrodes with Metrohm plug-in head G to Metrohm instruments (socket F).



1 PCS

6.2104.120

Electrode cable / 1 m / H

With plug H. For connecting generator electrode - KF Coulometer.



1 PCS

6.2412.000

Weighing boats

Weighing boat made of glass for the 6.1414.030 titration vessel lid or the 6.1455.31X, 6.1464.32X, 6.1465.320 titration vessel. For KF water determinations. Including protective tube.



1 PCS

6.2701.040

GL 18 screw cap with hole

Made of PBT. With a hole for the 6.1448.020 septum. For the 6.5405.000 cell without diaphragm and the 6.1464.32X and 6.1465.320 titration vessels.



3 PCS

6.2713.000

PTFE sleeve SGJ14

For fat-free ground-joint connection with the standard ground-joint SGJ 14.



1 PCS

6.2713.010

PTFE sleeve SGJ29

Sleeve for fat-free ground-joint connection with the standard ground-joint SGJ 29.



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1 PCS

6.2713.020

PTFE sleeve SGJ19

For fat-free ground-joint connection with the standard ground-joint SGJ 19.



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2 PCS

6.2730.010

Screw nipple

Made of PP. For 6.1448.010 Septum or for mounting 6.1403.040 Drying tube or 6.0338.100 Electrode in 6.1414.030 and 6.1414.040 KF Titration vessel lids. Used for KF titrations.



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1 PCS

6.2730.020

Septum stopper

With E.301.0041 O-ring. For 6.1448.010 Septum and 6.1414.030 Titration vessel lid. Used for KF applications.



4 PCS

6.2730.030

Stopper

Complete with nipple and O-ring. For 6.1414.030 titration vessel lids. For KF instruments, VA measurement stands, VA Computrace and IC Dilution.



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1 PCS

6.2738.000

Funnel

For the KF coulometer.



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2 PCS

6.2816.030

Needle with Luer connector

Needle for filling in mercury into the Multi-Mode Electrode and for sample addition in Karl Fischer titration.



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2 PCS

6.2816.090

Syringe 5 mL

5 mL syringe made of PP, with Luer connector.



## Optional accessories

| Order no.  | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                       |
|------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 2.860.0010 | 860 KF Thermoprep                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |    |
|            | <p>The 860 KF Thermoprep is designed for thermal sample preparation in Karl Fischer titration.</p> <p>Numerous substances cannot be analysed by direct Karl Fischer titration as they are not soluble, react with the Karl Fischer reagent or release their water only very slowly or not until heated to high temperatures. Using tightly sealed sample vials, the sample is inserted in the oven. The samples can be subsequently analysed by any volumetric or coulometric KF titrator.</p>    |                                                                                       |
| 6.2148.020 | RS-232/USB box                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |   |
|            | <p>Extends the Titrando, USB Sample Processors, Dosing Interface, Titrosampler by two RS-232 interfaces for connecting e.g. balances, PC, LIMS. Requires 6.2151.030 cable.</p>                                                                                                                                                                                                                                                                                                                    |                                                                                       |
| 2.136.0100 | Polytron PT 1300 D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |
|            | <p>Polytron PT 1300 D - Metrohm version</p> <p>Homogenizer that can be controlled directly by OMNIS Software, tiamo™ or Touch Control.</p> <p>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.</p> <p>Solid samples can be pulverized without difficulty. However the instrument is also highly suitable for ensuring thorough mixing in viscous samples.</p> |                                                                                       |

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).



2.803.0010

## 803 TI Stand with stirrer and pump

Compact titration stand with magnetic stirrer and built-in pump for solvent addition and aspiration of the titration vessel contents. Suitable for Karl Fischer titrations with Titrandos. MSB connection. Including comprehensive accessories, solvent bottle and waste bottle.



6.2148.010

## Remote Box MSB

Additional remote interface for the connection of devices that can be controlled via remote lines. With permanently attached cable.



6.3032.120

## 807 Dosing Unit 2 mL

807 Dosing Unit with integrated data chip with 2 mL glass cylinder and light protection, mountable to a reagent bottle with ISO/DIN GL 45 glass thread. FEP tubing connection, antidiffusion tip.



6.3032.150

## 807 Dosing Unit 5 mL

807 Dosing Unit with integrated data chip with 5 mL glass cylinder and light protection, mountable to a reagent bottle with ISO/DIN GL 45 glass thread. FEP tubing connection, antidiffusion tip.



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.



6.3032.220

## 807 Dosing Unit 20 mL

807 Dosing Unit with integrated data chip with 20 mL glass cylinder and light protection, mountable to a reagent bottle with ISO/DIN GL 45 glass thread. FEP tubing connection, antidiffusion tip.



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.



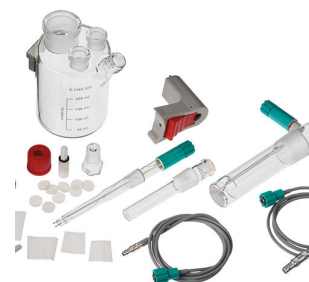
6.5406.000 Coulometric KF equipment, including generator electrode with diaphragm

Complete accessory set for KF coulometer.



6.5406.010 Coulometric KF equipment, including generator electrode without diaphragm

Complete accessory set for KF coulometer.



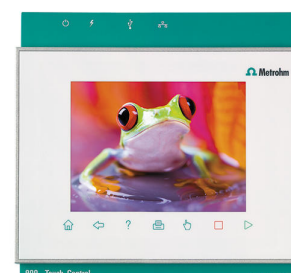
6.5617.000 Equipment for reagent replacement

Equipment for automatic reagent replacement with KF coulometer and connected Dosino.



2.900.0010 900 Touch Control

Operating unit for the Titrandos, USB Sample Processors, 856 Conductivity Module, 867 pH Module and 846 Dosing Interface. Touch-sensitive, high-resolution color display, simple and intuitive operation, thanks to Favorites for direct method access. With integrated Ethernet interface for direct connection to the Internet and USB interface for connecting USB printers or a USB memory stick.



Dialog languages: German, English, Chinese, French, Spanish, Portuguese, Russian, Korean, Polish and Italian.

6.2103.140 Adapter black 2 mm plug / B socket 4 mm  
For connecting plug B (4 mm) to 2 mm socket.



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6.2103.130 Adapter red 2 mm plug / 4 mm socket  
For connecting plug B (4 mm) to 2 mm socket.



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6.2811.000 Molecular sieve  
Molecular sieve. Bottle containing 250 g. Pore size: 0.3 nm. Without moisture indicator. For Rancimats and Karl Fischer instruments.



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6.2811.010 Molecular sieve (US)  
Molecular sieve. Bottle containing 250 g. Pore size: 0.3 nm. Without moisture indicator. For Rancimats and Karl Fischer instruments.  
This product is intended for all users who are US residents. The material is rated hazardous in the US in accordance with OSHA Hazard Communication Standard (29 CFR 1910.1200).

