



## IONIC Titrator Acid/Base

2.1040.4010

As powerful as a computer! With its 10-inch display and its large internal database, the IONIC Titrator provides full convenience with respect to user-friendliness and data handling. Operate it like your mobile telephone or tablet and save thousands of determinations directly to the instrument.

Thanks to the installed mobile communications module, you can upload your determination data directly into Metrohm Data Service, the new cloud data storage from Metrohm – without integration in your local network. This means that the data is available at all times and everywhere.

- pH, voltage, and temperature measurement
- Endpoint titration
- Monotonic equivalence point titration
- Dynamic equivalence point titration
- Over 30 method templates included for the most common potentiometric titrations in the areas of aqueous titration, nonaqueous titration, and redox and surfactant titrations
- Titration/dosing with up to 4 Dosino Modules (250,000 dosing steps)
- Report output on compact or network printers

Optional titration modes and additional functional enhancements:

- Volumetric Karl Fischer titration
- Compliance with statutory regulations: 21 CFR Part 11; EudraLex, Volume 4, Annex 11
- Option for second titration stand with magnetic or rod stirrer
- Use of up to three analog or digital electrodes

Version with one digital measuring input and one magnetic stirrer (left). Complete package for aqueous acid-base titration, including Dosino Module, 20 mL dosing unit, and dEcotrode Plus.

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 2.1040.4010

| Order Number                                                                        | Description                                                                                  | Quantity |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----------|
| 6.1903.020                                                                          | <b>Stirring bar / 16 mm</b><br>Stirring Bar with magnetic core, PTFE coated, length 16 mm    | 1 PCS    |
|    |                                                                                              |          |
| 6.1903.030                                                                          | <b>Stirring bar / 25 mm</b><br>Stirring bar with magnetic core, PTFE covering, length 25 mm. | 1 PCS    |
|  |                                                                                              |          |
| 6.1546.030                                                                          | <b>Piston tongs</b><br>For pistons for 807 Dosing Units or cylinder units OMNIS.             | 1 PCS    |
|  |                                                                                              |          |

6.2016.050

**Support rod / 300 mm**

1 PCS



6.2013.010

**Clamping ring**

1 PCS



For support rods with a diameter of 10 mm.

6.02005.000

**OMNIS electrode holder**

1 PCS

Electrode holder for one OMNIS titration system.



6.00201.300

**dEcotrode Plus**

1 PCS



Digital, combined pH electrode for OMNIS.

The electrode is suitable for aqueous acid/base titrations.

The fixed ground-joint diaphragm is insensitive to contamination.

Reference electrolyte:  $c(\text{KCl}) = 3 \text{ mol/L}$ , storage in storage solution.

dTrodes can be used on OMNIS Titrators.

6.2709.070



### Guiding sleeve

1 PCS

For fixation of buret and dosing tips in titration heads and electrode holders

6.2307.230



### Buffer solutions pH 4, 7 and 9

1 PCS

Mixed buffer solutions pH 4.00/7.00/9.00 (25 °C) in single use sachets, colourless, box of 3 x 10 x 30 mL

6.2325.000



### pHit kit

1 PCS

Maintenance kit for pH electrodes

The kit contains:

- 50 mL cleaning solution
- 50 mL 3M KCl solution
- 50 mL storage solution
- 2 Storage vessels
- Instructions for use

6.3032.220



### 807 Dosing Unit 20 mL

1 PCS

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.

1.1042.0010

**Dosino Module (cable 0.75 m)**

1 PCS



The Dosino Module is a high-precision drive for the space-saving extension of an OMNIS titration system to include an additional intelligent buret for titrations, dosings, and other liquid handling tasks. With permanently attached cable (length 0.75 m).

1.1040.0120

**IONIC Titrator with 1 magnetic stirrer**

1 PCS



As powerful as a computer! With its 10-inch display and its large internal database, the IONIC Titrator provides full convenience with respect to user-friendliness and data handling.

6.02104.320

**Electrode cable for plug-in head Q / plug P 0.75 m**

1 PCS



Cable for connecting a digital electrode (plug-in head Q) to a digital measuring module or measuring interface.

6.02164.020

**Power supply unit 100–240 V / 24 V DC 5 A**

1 PCS



Power supply unit for IONIC Titrator

6.6083.010

**USB flash drive for the IONIC Titrator**

1 PCS

This USB flash drive contains example methods and other documents.



6.06009.100

**Function license for IONIC potentiometric titrator**

1 PCS

Function license for one potentiometric IONIC Titrator. This contains the following modes:

- MEAS U/T/pH
- Calibration (Cal)
- Liquid Handling
- Endpoint titration without conditioning (SET)
- Monotonic equivalence point titration (MET)
- Dynamic equivalence point titration (DET)



6.02712.010

**Protective cover for IONIC Titrator display**

1 PCS

The protective cover protects the IONIC Titrator display against unintended splashes.



6.06009.028

**Function license IONIC magnetic stirrer (1x)**

1 PCS

Function license for the operation of the magnetic stirrers. One function license enables the operation of one magnetic stirrer. If two magnetic stirrers are to be operated with the IONIC Titrator, then two licenses must be activated.



## Optional accessories

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.

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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.

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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.

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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.

6.00200.300

**dUnitrode with Pt1000**



Digital, combined pH electrode for OMNIS with integrated Pt1000 temperature sensor. This electrode is particularly suitable for :

- pH measurements and titrations in difficult, viscous, or alkaline samples
- at elevated temperatures
- long-term measurements

The fixed ground-joint diaphragm is insensitive to contamination.

Reference electrolyte:  $c(\text{KCl}) = 3 \text{ mol/L}$ , storage in storage solution.

Alternatively: Reference electrolyte for measurements at  $T > 80^\circ\text{C}$ : Idrolyte, storage in Idrolyte.

dTrodes can be used on OMNIS Titrators.

6.00201.300

**dEcotrode Plus**



Digital, combined pH electrode for OMNIS.

The electrode is suitable for aqueous acid/base titrations.

The fixed ground-joint diaphragm is insensitive to contamination.

Reference electrolyte:  $c(\text{KCl}) = 3 \text{ mol/L}$ , storage in storage solution.

dTrodes can be used on OMNIS Titrators.

6.00202.300

**dAquatrode Plus with Pt1000**

Digital, combined pH electrode for OMNIS, with integrated Pt1000 temperature sensor, for pH measurements/titrations in ion-deficient aqueous media (e.g., drinking water, process water). This electrode shows a very short response time in these samples. The fixed ground-joint diaphragm is insensitive to contamination. When  $c(\text{KCl}) = 3 \text{ mol/L}$  is used as bridge electrolyte, storage in storage solution is recommended.

The bridge electrolyte can be easily replaced with a chloride-free electrolyte (e.g., potassium nitrate  $c(\text{KNO}_3) = 1 \text{ mol/L}$  (6.2310.010)). Storage in the bridge electrolyte used.

dTodes can be used on OMNIS Titrators.

6.00203.300

**dSolvotrode**

Digital, combined pH electrode for OMNIS for all non-aqueous acid/base titrations. The glass membrane is optimized for poorly conducting solutions and thanks to the flexible ground-joint diaphragm, the electrode is suitable for contaminated samples.

This electrode can be used with non-aqueous reference electrolytes (lithium chloride or tetraethylammonium bromide).

Storage in corresponding reference electrolyte.

dTodes can be used on OMNIS Titrators.

6.00204.300

**dProfitrode**



Digital, combined pH electrode for OMNIS with double-junction system. This electrode is suitable for pH measurements/titrations of samples

- that contaminate the reference system of the electrode (e.g., galvanic baths, samples containing sulfides)
- for which potassium chloride  $c(\text{KCl}) = 3 \text{ mol/L}$  cannot be used as reference electrolyte (e.g., reaction of potassium or chloride with sample)

The electrode is equipped with a flexible ground-joint diaphragm which is insensitive to contamination and which can be exchanged when needed.

When  $c(\text{KCl}) = 3 \text{ mol/L}$  is used as bridge electrolyte, storage in storage solution is recommended.

The bridge electrolyte can be easily replaced with a suitable electrolyte (e.g., potassium nitrate  $c(\text{KNO}_3) = 1 \text{ mol/L}$  (6.2310.010)). Storage in the bridge electrolyte used.

dTodes can be used on OMNIS Titrators.

6.02104.060

**Electrode cable (pol.) plug P,  
0.75 m**



Cable for connecting an analog polarizable electrode (plug-in head G) to an analog measuring module or measuring interface.

6.02104.070

**Electrode cable (temp.) plug P  
0.75 m**



Cable for connecting an analog temperature sensor (plug-in head G) to an analog measuring module or measuring interface.

6.02104.320

**Electrode cable for plug-in  
head Q / plug P 0.75 m**



Cable for connecting a digital electrode (plug-in head Q) to a digital measuring module or measuring interface.

2.142.0100

**Custom Q3X thermal printer**



Compact printer with USB interface for

- 900 Touch Control
- 915 KF Ti-Touch
- 916 Ti-Touch
- 917 Coulometer
- 877 / 848 Titrino plus
- 865 / 876 Dosimat plus
- 91X Meter (cable 6.2151.140)
- Eco Dosimat / Titrator
- 862 Compact Titrosampler
- 870 KF Titrino plus
- 899 Coulometer

Paper width 60 mm (40 characters). Including 6.2151.120 USB cable.

2.143.0200

**TX-900MH impact printer**



Compact impact printer with USB and RS232 interface for

- 900 Touch Control (+)
- 915 KF Ti-Touch (+)
- 916 Ti-Touch (+)
- 917 Coulometer (+)
- 91X Meter (+)
  - Eco Dosimat/Titrator (+)
- 877/848 Titrino plus (additional 6.2151.100 required)
- 865/876 Dosimat plus (additional 6.2151.100 required)
- 862 Compact Titrosampler (additional 6.2151.100 required)
- 870 KF Titrino plus (additional 6.2151.100 required)
- 899 Coulometer (additional 6.2151.100 required)

(+) Cable included in scope of delivery

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6.06009.280

**Function license IONIC  
Compliance/Regulation**

Function license for the use of the compliance functionalities in connection with the IONIC Titrator.

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6.02712.010

**Protective cover for IONIC  
Titrator display**



The protective cover protects the IONIC Titrator display against unintended splashes.

6.02061.010

**Bottle holder for IONIC  
Titrator**

Bottle holder for up to two 1 L supply bottles. The bottle holder can be positioned at either the rear or the side of the instrument.

