



# 848 Titrino plus

2.848.0010

Compact titrator for

- dynamic (DET) titrations with automatic equivalence point finding
- monotonic (MET) titrations with automatic equivalence point finding
- endpoint titrations (SET)

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 2.848.0010

Qt.	Order no.	Description
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1 PCS

1.848.0010

848 Titrino plus

Compact titrator for

- dynamic (DET) titrations with automatic equivalence point finding
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- endpoint titrations (SET)



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1 PCS

6.2147.000

Numerical USB keypad

Numerical USB keypad for Titrino plus, Dosimat plus, 862 Compact Titrosampler, 869 Compact Sample Changer, 863 Compact Autosampler and 899 Coulometer. With two integrated USB connectors.



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1 PCS

6.2151.100

Adapter USB MINI (OTG) - USB A

For connecting USB instruments.



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1 PCS




6.2739.010

Wrench

For exchange units.



## Optional accessories

Order no.	Description	
2.142.0100	Custom Q3X thermal printer	
	Compact printer with USB interface for	
	<ul style="list-style-type: none"><li>• 900 Touch Control</li><li>• 915 KF Ti-Touch</li><li>• 916 Ti-Touch</li><li>• 917 Coulometer</li><li>• 877 / 848 Titrino plus</li><li>• 865 / 876 Dosimat plus</li><li>• 91X Meter (cable 6.2151.140)</li><li>• Eco Dosimat / Titrator</li><li>• 862 Compact Titrosampler</li><li>• 870 KF Titrino plus</li><li>• 899 Coulometer</li></ul>	
	Paper width 60 mm (40 characters). Including 6.2151.120 USB cable.	
2.801.0040	801 Stirrer with stand	
	Magnetic stirrer including base plate, support rod and electrode holder for supplementing the Titrino plus, Dosimat plus, Titrandos, Sample Processors, 805 Dosimat and 780/781 pH meters as well as the 856 and 867 measuring modules. With permanently attached cable for MSB (Metrohm Serial Bus).	
2.802.0040	802 Stirrer for 804 Ti Stand	
	Rod stirrer including 6.1909.010 stirring propeller.	

Titration stand and controller for 802 Rod Stirrer. The 804 Ti Stand together with the optional 802 Rod Stirrer provides an alternative to the magnetic stirrer. Ti Stand with base plate, support rod and electrode holder.



Universal dispensing unit for titration and dosing tasks in the laboratory. Including push-button cable for manual dispensing control and 6.3026.220 exchange unit (20 mL). A multitude of instruments can be connected at the USB interface of the Dosimat plus, even a number of them simultaneously when a USB hub is used (keyboard, mouse, USB compact printer or USB DIN A4 printer, USB Memory Stick for methods and data backup). The optional 6.2148.030 USB/RS-232 Adapter Box enables the connection of laboratory balances and operation with a computer.



With its four dosing modes, the Dosimat plus offers a multitude of applications:

DOS (Dosing) – Dosing at the press of a button

This mode is particularly suitable for performing manual titrations with indicator. A result can be calculated and a result report can be printed automatically from the dosed volume.

XDOS (Extended dosing) – Controlled dosing

- Fixed volume dosing: The volume and the dosing rate are specified.
- Time-controlled dosing: The volume and the time are specified.
- Dosing according to dosing rate: The dosing rate and the time are specified.

If continuous dosing without interruption is required, then the 865 Dosimat plus can be operated together with an 805 Dosimat in tandem mode.

CNT D (Content dosing) – Preparation of standard and other solutions.

The volume of the solvent to be dosed is determined automatically on the basis of the sample size of the starting substance (solid or stock solution) and the specified target concentration.

LQT (Liquid transfer) – Pipetting and diluting of liquids.

The 869 Compact Sample Changer offers the rapid and simple automation of Titrino plus applications in a very small space. For low numbers of multiple determinations or small sample series, this sample changer is just the right choice. Various titrations can be performed fully automatically and the electrodes can be cleaned and stored in a total of 12 positions.

Thanks to the large and clearly organized live display, the current status of the sample series can be recognized directly and important samples can be given preferential analysis at any time.

Various method templates can be used as the basis for creating and storing application-specific methods. Communication between Compact Sample Changer and Titrino plus takes place via remote signals without an additional control box or PC being required.



Universal dispensing unit for manual titrations and dosings. Including push-button cable for manual dosing control and 20 mL exchange unit. A multitude of instruments can be connected at the USB interface of the Dosimat plus, even a number of them simultaneously when a USB hub is used (keyboard, mouse, USB compact printer or USB DIN A4 printer, USB Memory Stick for methods and data backup). The optional 6.2148.030 USB/RS-232 Adapter Box enables the connection of laboratory balances and operation with a computer. With its two dosing modes, the Dosimat plus offers the following applications:



DOS (Dosing) – Dosing at the press of a button

This mode is particularly suitable for performing manual titrations with indicator. A result can be calculated and a result report can be printed automatically from the dosed volume.

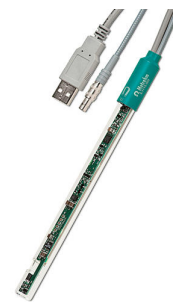
XDOS (Extended dosing) – Controlled dosing

- Fixed volume dosing: The volume and the dosing rate are specified.
- Time-controlled dosing: The volume and the time are specified.
- Dosing according to dosing rate: The dosing rate and the time are specified.

Optical sensor for photometric titrations offering 8 different wavelengths. The wavelength can be switched using the software (tiamo 2.5 or higher) or with a magnet. The glass shaft is completely solvent-resistant and easy to clean. For example, this space-saving sensor is suitable for:

- Non-aqueous titrations in accordance with USP or EP
- Determinations of carboxyl end groups
- TAN/TBN in accordance with ASTM D974
- Sulfate determination
- Fe, Al, Ca in cement
- Water hardness
- Chondroitin sulfate in accordance with USP

The sensor is not suitable for determinations of concentrations via measurement of color intensity (colorimetry).



## 6.2104.020

## Electrode cable / 1 m / F

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



## 6.2104.030

## Electrode Cable 2 m / F

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



6.2141.230 Remote cable Compact Sample Changer/Compact Autosampler - Titrino plus/Pump Station

Cable for the remote connection between Compact Sample Changer /Compact Autosampler and Titrino plus and/or Pump Station.



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6.2141.240 Remote cable Dosimat plus - Compact Sample Changer/Titrino plus

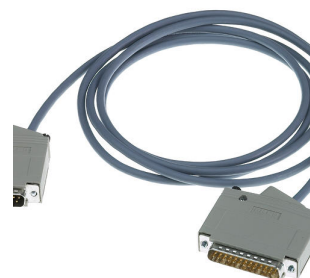
Cable for the remote connection between Dosimat plus and Compact Sample Changer and/or Titrino plus using 6.2141.260 Cable.



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6.2141.250 Remote cable Compact Sample Changer - Titrino

Cable for the remote connection between Compact Sample Changer and Titrinos with 25-pin remote socket.



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6.2141.260 Remote cable Compact Sample Changer - Dosimat plus and Titrino plus

Cable for remote connection between Compact Sample Changer and Dosimat plus and further devices (e.g. Titrino plus or Pump Station).



6.2148.030

RS-232/USB Box

Extends the Titrino plus by two RS-232 interfaces, e.g., for the connection of balances, PC (tiBase software), LIMS. Requires 6.2151.030 cable.



6.2151.120

Cable USB MINI (OTG) - USB B, 1.8 m

For connecting USB instruments.



6.2723.310

Protective cover for Titrino plus

Protective cover for display and keypad for all instruments of the Titrino plus family.

Suitable for: 848 Titrino plus, 862 Compact Titrosampler, 863 Compact Autosampler, 865 Dosimat plus, 869 Compact Sample Changer, 870 KF Titrino plus, 876 Dosimat plus, 877 Titrino plus, 899 Coulometer.



6.3026.110

Exchange Unit 1 mL

Exchange Unit with integrated data chip with 1 mL glass cylinder and light protection. PCTFE/PTFE flat stopcock, FEP tubing connection, antidiffusion buret tip and standard amber glass reagent bottle.





6.3026.150

#### Exchange Unit 5 mL

Exchange Unit with integrated data chip with 5 mL glass cylinder and light protection. PCTFE/PTFE flat stopcock, FEP tubing connection, anti-diffusion buret tip and standard amber glass reagent bottle.



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6.3026.210

#### Exchange Unit 10 mL

Exchange unit with integrated data chip with 10 mL glass cylinder and light protection. PCTFE/PTFE flat stopcock, FEP tubing connection, anti-diffusion buret tip and standard amber glass reagent bottle.



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6.3026.220

#### Exchange Unit 20 mL

Exchange unit with integrated data chip with 20 mL glass cylinder and light protection. PCTFE/PTFE flat stopcock, FEP tubing connection, anti-diffusion buret tip and standard amber glass reagent bottle.



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6.3026.250

#### Exchange unit 50 mL

Exchange unit with integrated data chip with 50 mL glass cylinder and light protection. PCTFE/PTFE flat stopcock, FEP tubing connection, antidiffusion tip and standard amber glass reagent bottle.

