916 Ti-Touch with magnetic stirrer

2.916.0020

''Reduce to the max'' – this is the 916 Ti-Touch concept. The compact titrator from Metrohm offers the maximum in the class of stand-alone systems for routine analysis.

The 916 Ti-Touch with built-in magnetic stirrer supports all potentiometric titrations: the titration modes DET (dynamic equivalence point titration), MET (monotonic equivalence point titration), SET (titration to one or two specified endpoints), STAT (enzymatic and pH-STAT titrations), and MAT (manual titration).

The 916 Ti-Touch now also fulfills FDA Regulation 21 CFR, Part 11. This means you are always on the safe side when it comes to audits.

With the 810 Sample Processor, you are supplementing the 916 Ti-Touch with automation and thus enhancing your sample throughput and improving the precision and reproducibility of your results.

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 2.916.0020

Qt.	Order no.	Description
1 PCS	1.916.0020	916 Ti-Touch with magnetic stirrer

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Qt.	Order no.	Description
1 PCS	6.1903.020	Stirring bar / 16 mm

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

Qt.	Order no.	Description
1 PCS	6.1903.030	Stirring bar / 25 mm

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

1 PCS	6.2013.010	Clamping ring

For support rods with a diameter of 10 mm.

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1 PCS	6.2016.070	Support rod / 400 mm

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1 PCS	6.2021.020	Electrode holder

Electrode holder for 4 electrodes and 2 buret tips

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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	6.2164.010	Power supply unit 100 - 240 V/24 V DC

Power supply unit for 915 KF Ti-Touch, 916 Ti-Touch, 917 Coulometer and all Eco Titrators / Eco Dosimat.

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1 PCS	6.2621.030	Hexagon key 4 mm

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1 PCS	6.2723.300	Protective cover for 900 Touch Control

Protective cover for 900 Touch Control

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1 PCS	6.6066.000	USB flash drive for Ti-Touch

USB flash drive for 915 KF Ti-Touch and 916 Ti-Touch.

Optional accessories

Order no.	Description
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

2.800.0020   800 Dosino

Drive with write/read hardware for intelligent dosing units. With permanently attached cable (length 0.65 m).

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.

2.804.0040   804 Ti Stand with stand

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.

Ω Metrohm

2.805.0010   805 Dosimat

Dosing device for the Titrando and Sample Processors with read/write hardware for intelligent Exchange Units. With permanently attached cable. Without Exchange Unit.

2.810.0010   810 Sample Processor

Sample Processor for the automated analysis of routine samples using 916 Ti-Touch or 915 KF Ti-Touch.

Sample Processor with one workstation and one built-in membrane pump for the automatic processing of potentiometric as well as Karl Fischer titrations, in series with small to medium quantities. In addition to the built-in pump, an additional one (membrane or peristaltic) and up to three dosing devices for Liquid Handling tasks can be connected.

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

2.854.0010   854 iConnect

The 854 iConnect – Electrode cable and measuring amplifier for intelligent "iTrodes" electrodes (cable length 150 cm).

6.0278.300   iUnitrode with Pt1000

Intelligent, combined pH electrode with integrated memory chip for storing sensor data and Pt1000 temperature sensor. This electrode is particularly suitable:

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

The fixed ground-joint diaphragm is insensitive to contamination.

Reference electrolyte: c(KCl) = 3 mol/L, storage in storage solution.
Alternatively: reference electrolyte for measurements at T>80°C: Idrolyte, storage in Idrolyte.
iTrodes can be connected to Titrando, Ti-Touch or 913/914 meters.

6.0279.300   iSolvotrode

Intelligent, combined pH electrode with integrated memory chip for storing sensor data 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 well suited for contaminated samples. This electrode can be used with non-aqueous reference electrolytes (lithium chloride or tetraethylammonium bromide). Storage in the respective reference electrolyte.
iTrodes can be connected to Titrando, Ti-Touch, or 913/914 meters.

6.0280.300   iEcotrode Plus

Intelligent, combined pH electrode with integrated memory chip for storing of sensor data. This electrode is suitable for aqueous acid/base titrations.

The fixed ground-joint diaphragm is insensitive to contamination.
Reference electrolyte: c(KCl) = 3 mol/L, storage in storage solution.
iTrodes can be connected to Titrando, Ti-Touch or 913/914 meters.

6.0471.300   iPt Titrode

Combined platinum ring electrode with a pH glass membrane as reference electrode and integrated memory chip for storing sensor data. This maintenance-free electrode is suitable for redox titrations when the pH value remains constant, e.g.:

- Iodometry
- Chromatometry
- Cerimetry
- Permanganometry
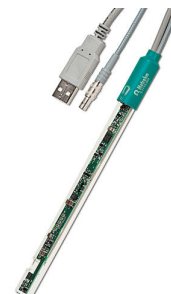
This electrode is stored in distilled water.
iTrodes can be used on Titrando, Ti-Touch oder 913/914 meters.

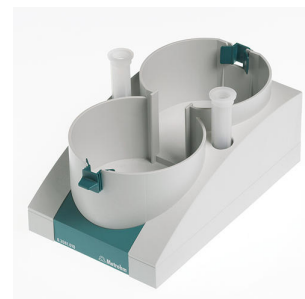---

6.1115.000   Optrode

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).

6.2061.010   Bottle holder for Dosinos

Bottle holder for up to two Dosinos, mounted on 1 L reagent bottles.

6.2103.130   Adapter red 2 mm plug / 4 mm socket

For connecting plug B (4 mm) to 2 mm socket.

6.2103.140   Adapter black 2 mm plug / B socket 4 mm

For connecting plug B (4 mm) to 2 mm socket.

6.2107.120   Manual Dosing Controller - Ti-Touch

Handle for manual dosing and manual titration with the 916 Ti-Touch and the 900 Touch Control. Requires 6.2148.010 Remote Box MSB.

6.2168.000   Mini USB adapter cable, 25 cm

Mini USB adapter cable for connecting one 854 iConnect to an 867 pH Module, 901 to 907 Titrandos and 916 Ti-Touch, 25 cm. The adapter cable remains plugged into the instrument as strain relief and the 854 iConnect is only plugged into and unplugged from the adapter cable.

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.

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.

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.

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.

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.

Metrohm

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.