



# 894 Professional CVS semiautomated with 3 Dosinos

2.894.1310

894 Professional CVS semiautomated is a convenient, high-end routine analyzer for the determination of organic additives in electroplating baths using "Cyclic Voltammetric Stripping" (CVS), "Cyclic Pulse Voltammetric Stripping" (CPVS) and Chronopotentiometry (CP). The proven Metrohm electrode methods combined with a high-performance potentiostat/galvanostat and the extremely flexible viva software open up new perspectives in CVS. The replaceable measuring head enables rapid changes between various applications with different electrodes. The potentiostat with a certified calibrator readjusts itself automatically before each measurement, thus guaranteeing maximum precision. The integrated temperature measurement input allows you to monitor the solution temperature during the measurement.



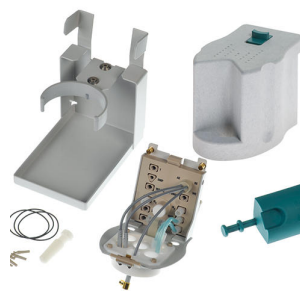
3x 800 Dosinos (supplied) permit the automatic addition of auxiliary solutions during the determination, e.g., VMS, standard solutions or samples for the Dilution Titration technique (DT).

The viva software is required for control, data collection, and evaluation.

The 894 Professional CVS semiautomated is supplied with extensive accessories and measuring head for rotating disk electrodes. Electrode set and viva license need to be ordered separately.

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 2.894.1310

Qt.	Order no.	Description
3 PCS	1.800.0040	800 Dosino (cable length 0.65 m)  Drive with write/read hardware for intelligent dosing units. With permanently attached cable (length 0.65 m).
		
1 PCS	1.894.0010	894 Professional CVS
		
1 PCS	6.1256.010	RDE measuring head for Professional VA/CVS instruments  Measuring head for operation with rotating disk electrodes.
		

2 PCS

6.1446.040

Threaded stopper / M6



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1 PCS

6.1546.030

Piston tongs

For pistons for 807 Dosing Units or cylinder units OMNIS.



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1 PCS

6.1602.190

Eluent Bottle Head, 1 x SGJ 14, 4 x M6

Eluent bottle head to connect up to 4 tubings with M6 connectors. For eluent bottle of the Eluent synthesizer.



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2 PCS

6.1608.050

Drying bottle / 100 mL / GL 45



2 PCS

6.1608.070

Eluent bottle / 2 L / GL 45



2 PCS

6.1618.060

Thread adapter GL 45 to GL 45

Thread adapter GL45 to GL45; e.g. for reagent bottles with extended flange



1 PCS

6.1805.120

FEP tubing / M6 / 100 cm

With light and kink protection



3 PCS

6.1805.530

FEP tubing / M6 / 2 m

With light and kink protection



2 PCS

6.1808.000

Connection bushing M6



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1 PCS

6.1815.010

Spiral band 0.5 m

For holding together different cables or tubing.



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3 PCS

6.1819.010

PTFE tube

As gas inlet in washing bottle of VA Stand



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1 PCS

6.1824.000

Four-way micro dosing tip

With 4 x M6 thread. For VA measuring stands.



1 PCS

6.1829.070

Tubing set for Professional VA/CVS instruments

Tubing set for the measuring head of Professional VA/CVS instruments. Comprised of 4 FEP tubings with M6 connector, tapering tip and protected against kink (2 x 82 mm long und 2 x 110 mm long).



1 PCS

6.1829.080

Aspiration tubing / M6 / 0.3 m



1 PCS

6.2053.000

Cable clip

Cable clip for fastening cables and tubes



1 PCS

6.2055.110

Bottle holder or Dosino holder for two bottles  
/Dosinos

Holder for two 250 mL bottles or two Dosinos



1 PCS

6.2151.000

Cable USB A – mini-DIN 8-pin

Controller cable



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1 PCS

6.2621.080

Capillary cutter

Cutting tool for simple cutting of plastic capillaries, 1/16" and 1/8", including 5 replacement blades.



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1 PCS

6.2703.000

Stand ring for titration vessels



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1 PCS

6.2711.090

Drip pan for Professional VA/CVS instruments



2 PCS                      6.2739.000                      Wrench  
For tightening connectors



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1 PCS                      6.2813.050                      Dummy cell for Professional VA/CVS instruments



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2 PCS                      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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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.





## Optional accessories

Order no.	Description	
2.800.0020	800 Dosino	
	Drive with write/read hardware for intelligent dosing units. With permanently attached cable (length 0.65 m).	
2.843.0240	843 Membrane Pump Station for Professional VA/CVS systems	
	The 843 Membrane Pump Station enables the automatic rinsing and emptying of the measuring vessel in partly automated and fully automated Professional VA and CVS systems. It has two built-in membrane pumps that can be controlled via the remote signal.	
	The versions for VA and CVS are equipped with the complete accessories for the automatic rinsing and emptying of the measuring vessel.	
2.858.0110	858 Professional Sample Processor for VA and CVS	
	The 858 Professional Sample Processor for VA and CVS, in conjunction with Professional VA/CVS instruments and viva, enables the fully automatic processing of large sample series of organic additives in electroplating baths, e.g. "brighteners" and "suppressors" using "Cyclic Voltammetric Stripping" (CVS). The system is controlled directly by the viva software and permits automatic changes of method between different types of determinations. The sample rack supplied holds 56 samples of a maximum of 11 mL and 28 samples of a maximum of 50 mL for brightener determination.	
	The 858 Professional Sample Processor for VA and CVS is supplied with built-in robotic arm, together with accessories, sample rack and connection cable for setting up a complete workplace, although it does not come with rinsing equipment.	

The 858 Professional Sample Processor CVS with Dosino for sample transfer, in conjunction with Professional VA/CVS instruments and viva, enables the fully automatic processing of large sample series of organic additives in electroplating baths, e.g. brighteners, and suppressors, using "Cyclic Voltammetric Stripping" (CVS). The system is controlled directly by the viva software and permits automatic changes of method between different determination types. The sample rack (supplied) holds 56 samples of a maximum of 11 mL for suppressor determination and 28 samples of a maximum of 50 mL for brightener determination. A Dosino is used for sample transfer into the measuring vessel. This enables reduction and automatic measurement of the sample amount required.

The 858 Professional Sample Processor CVS with Dosino for sample transfer is supplied with built-in robotic arm, together with accessories, Dosino, sample rack, and connection cable for setting up a complete workplace, although it does not come with rinsing equipment.



The 919 IC Autosampler plus for CVS, in conjunction with Professional VA /CVS instruments and viva, is suitable for small sample series of fully automatic determinations of organic additives in electroplating bath, e.g. "brighteners" and "suppressors" using "Cyclic Voltammetric Stripping" (CVS). The system is controlled directly by the viva software and permits automatic changes of method between different types of determinations. The sample rack supplied holds 14 samples with a maximum size of 50 mL.

The 919 IC Autosampler plus for CVS is supplied with accessories, sample rack, and connection cable so you can set up a complete workplace, although it does not come with rinsing equipment.



Pt1000 temperature sensor (class B) for Professional CVS Instruments.



6.1454.130

Form seal made of FPM for 61414xxx

for KF and VA instruments



6.2104.140

Electrode cable / 1 m / 2 x 2 mm

For connecting temperature sensors with Metrohm plug-in head G with 780, 781, 826, 827 pH/Ion meters and all Titrandos



6.5339.000

CVS electrode equipment with 1 mm platinum electrode for Professional VA/CVS instruments

Complete electrode set for the determination of organic additives in electroplating baths with CVS (Cyclic Voltammetric Stripping). Contains rotating platinum working electrode (electrode diameter: 1 mm), reference electrode, platinum auxiliary electrode, measuring vessels and electrolyte solutions.



6.5339.010

CVS electrode equipment with 2 mm platinum electrode for Professional VA/CVS instruments

Complete electrode set for the determination of organic additives in electroplating baths with CVS (Cyclic Voltammetric Stripping). Contains rotating platinum working electrode (electrode diameter: 2 mm), reference electrode, platinum auxiliary electrode, measuring vessels and electrolyte solutions.



6.5339.060

CVS electrode equipment with 2 mm platinum electrode for Professional VA/CVS instruments for intensive use

Complete electrode set for the determination of organic additives in electroplating baths with CVS (Cyclic Voltammetric Stripping). Contains rotating platinum working electrode (electrode diameter: 2 mm), driving axle with mercury contact, maintenance-free gel reference electrode, platinum auxiliary electrode, measuring vessels and KCl electrolyte solution.



6.5339.110

CVS electrode equipment with 2 mm platinum electrode, gel reference electrode and steel auxiliary electrode for Professional VA/CVS instruments

Complete electrode set for the determination of organic additives in electroplating baths with CVS (Cyclic Voltammetric Stripping). Contains rotating platinum working electrode (electrode diameter: 2 mm), driving axle with mercury contact, maintenance-free gel reference electrode, steel auxiliary electrode, measuring vessels and KCl electrolyte solution.



6.5339.500

Equipment with 2x 807 Dosing Units for VA and CVS measurements

Accessory set for 2 auxiliary solutions for expanding VA or CVS systems. Contains 2x 807 Dosing Units 2 mL, 2x 100 mL clear glass bottles, bottle holder for 2 bottles, and connector material. Without Dosinos.



6.5339.520

Equipment with two 807 Dosing Units (2 + 50 mL) for CVS measurements

Accessory set for two auxiliary solutions for expanding CVS systems. Includes one 2 mL and one 50 mL 807 Dosing Unit each, clear glass bottles 100 mL and 2 L, bottle holders for 2 bottles, one 2-way microtip, and connector material. Without Dosinos.



6.5339.600

Equipment with the 807 Dosing Unit for automatic sample transfer for VA and CVS measurements

Accessory set for expanding VA or CVS systems for automatic sample transfer with the Dosino. Includes one 5 mL 807 Dosing Unit, one Dosino holder and connector material. Without Dosino.



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6.6065.402

viva 4.0 Full: 1 license

Computer program for control and data management of Professional VA /CVS instruments. The software permits checks, data acquisition, evaluation, and monitoring, as well as generation of reports.

Graphic user interface for routine operations, extensive database programs with reevaluation, graphic method editor with numerous templates, system configuration, very flexible user management, extensive data export functions, individually configurable report generator.

Includes the "Differential Pulse" (DP), "Square Wave" (SQW), "Linear Sweep Voltammetry" (LSV), "Cyclic Voltammetry" (CV), "Cyclic Voltammetric Stripping" (CVS), "Cyclic Pulse Voltammetric Stripping" (CPVS), and Chronopotentiometry (CP) measuring modes. The following calibration techniques are supported: Standard addition, external calibration, DT (Dilution Titration), LAT (Linear Approximation Technique), MLAT (Modified Linear Approximation Technique), RC (Response Curve).

Dialog languages: German, English, Chinese, Japanese.

The following instruments are supported: 884 Professional VA, 894 Professional CVS

1 license for a maximum of 4 Professional VA/CVS instruments on a single computer. Contains USB flash drive and installation documentation.

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Client/server-compatible computer program for control and data management of Professional VA/CVS instruments. The software permits checks, data acquisition, evaluation, and monitoring, as well as report generation.



Graphic user interface for routine operations, extensive database programs with reevaluation, graphic method editor with numerous templates, system configuration, very flexible user management, extensive data export functions, individually configurable report generator.

Includes the "Differential Pulse" (DP), "Square Wave" (SQW), "Linear Sweep Voltammetry" (LSV), "Cyclic Voltammetry" (CV), "Cyclic Voltammetric Stripping" (CVS), "Cyclic Pulse Voltammetric Stripping" (CPVS), and Chronopotentiometry (CP) measuring modes. The following calibration techniques are supported: Standard addition, external calibration, DT (Dilution Titration), LAT (Linear Approximation Technique), MLAT (Modified Linear Approximation Technique), RC (Response Curve).

Dialog languages: German, English, Chinese, Japanese.

The following instruments are supported: 884 Professional VA, 894 Professional CVS

Client/server version with 3 licenses for 3 computers with a max. of 4 Professional VA/CVS instruments per computer. Contains USB flash drive and installation documentation.

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