



894 Professional CVS fully automated for small sample series

MVA-20

Automated analysis system for the determination of organic additives in electroplating baths using CVS ("Cyclic Voltammetric Stripping"), CPVS ("Cyclic Pulse Voltammetric Stripping") and CP ("Chronopotentiometry"). Comprising 894 Professional CVS, 919 IC Autosampler plus, four 800 Dosinos, 843 Pump Station, measuring head for rotating disk electrodes and extensive accessories. For small sample series of up to 14 samples.

The viva software is required for control, data recording and evaluation. PC, electrode set and viva license are 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 MVA-20

Qt.	Order no.	Description
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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.



2x 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.

The 800 Dosino is a drive with write/read hardware for intelligent Dosing Units. With fixed cable (length 150 cm).



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.



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.



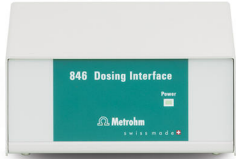
Accessory set for 2 auxiliary solutions for expanding VA or CVS systems. Contains 2x 807 Dosing Units 2 mL, 2x 100 mL clear glass bottles, bottle holder for 2 bottles, and connector material. Without Dosinos.



Remote cable for the direct connection of the 843 Pump Station to the pump connectors of the Sample Processors



Optional accessories

Order no.	Description
2.846.0010	846 Dosing Interface USB-capable control unit for connecting a maximum of four 800 Dosinos or 805 Dosimats for dosing and Liquid Handling tasks. A Touch Control or the connection to a PC with OMNIS Software, tiamo™, MagIC Net, viva, or 797 VA Computrace is required for operation. 
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. 
6.5339.020	CVS electrode equipment with 3 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: 3 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. 

6.1110.120

Pt1000 temperature sensor for CVS (installation length 9 cm)

Pt1000 temperature sensor (class B) for Professional CVS 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



6.5339.060

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.



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.



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.
