



884 Professional VA fully automated for CVS with Dosino for sample transfer

MVA-24

Automated analysis system for the high-performance, flexible determination of organic additives in electroplating baths using CVS ("Cyclic Voltammetric Stripping"), CPVS ("Cyclic Pulse Voltammetric Stripping"), and CP ("Chronopotentiometry"). Comprising 884 Professional VA for CVS, 858 Professional Sample Processor with Dosino for sample transfer, 4x additional 800 Dosinos for auxiliary solutions, 843 Pump Station, measuring head for rotating disk electrodes, and extensive accessories. For sample series of up to 112 samples.

The viva software is required for control, data collection, and evaluation. PC, 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 MVA-24

Qt.	Order no.	Description
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884 Professional VA semiautomated for CVS applications is a convenient high-end routine analyzer for determinations of organic additives in electroplating baths with "Cyclic Voltammetric Stripping" (CVS), "Cyclic Pulse Voltammetric Stripping" (CPVS), and chronopotentiometry (CP), or voltammetric heavy metal determinations with rotating disk electrodes. 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 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.



The instrument can also be used to perform voltammetric determinations. The replaceable measuring head enables rapid changes between the various applications with different electrodes.

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

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



1 PCS

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.



1 PCS

2.858.0120

858 Professional Sample Processor CVS with Dosino
for sample transfer

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.



1 PCS

6.2141.300

Remote cable 843 Pump Station to Sample Processor

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



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.



Optional accessories

Order no.	Description
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. 
6.5339.020	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. 

6.5339.060

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.



6.1110.100

Pt1000 temperature sensor (installation length 12.5 cm)

Pt1000 temperature sensor (class B) made of glass.

This PT1000 temperature sensor is also available under the article number 6.1110.110 with an installation length of 17.8 cm.



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



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.

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.
