



884 Professional VA manual for Multi-Mode Electrode (MME)

2.884.0110

884 Professional VA manual for Multi-Mode Electrode (MME) is the entry-level instrument for high-end trace analysis with voltammetry and polarography with the Multi-Mode Electrode pro or the scTRACE Gold or the Bismuth drop electrode. The proven Metrohm electrode methods in combination with a high-performance potentiostat/galvanostat and the extremely flexible viva software open up new perspectives for the determination of heavy metals. The potentiostat with a certified calibrator readjusts itself automatically before each measurement, thus guaranteeing maximum precision.

Determinations with rotating disc electrodes can also be performed with the instrument, e.g. determinations of organic additives in electroplating baths with "Cyclic Voltammetric Stripping" (CVS), "Cyclic Pulse Voltammetric Stripping" (CPVS), and chronopotentiometry (CP). The replaceable measuring head enables rapid changes between the various applications with different electrodes.

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

The 884 Professional VA manual for MME is supplied with extensive accessories and a measuring

head for the Multi-Mode Electrode pro. 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 2.884.0110

Qt.	Order no.	Description
1 PCS	1.884.0010	884 Professional VA

884 Professional VA is the universal entry-level instrument in the Professional VA/ CVS instrument series. In conjunction with the compatible measuring head and compatible electrode set, you can perform trace analysis determinations, voltammetry with the Multi-Mode Electrode pro, or determinations of organic additives in electroplating baths, with "Cyclic Voltammetric Stripping" (CVS), "Cyclic Pulse Voltammetric Stripping" (CPVS), and chronopotentiometry (CP). The proven Metrohm electrode methods combined with a completely new design of potentiostat/galvanostat and the extremely high-performance viva software open up new perspectives. The potentiostat with a certified calibrator readjusts itself automatically before each measurement, thus guaranteeing maximum precision. The replaceable measuring head enables rapid changes between various applications with different electrodes.



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

The 884 Professional VA is supplied with reduced accessories, without measuring head and electrodes. Electrode set and viva license are to be ordered separately.

1 PCS	6.1256.020	MME measuring head for Professional VA instruments
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Measuring head for operation with the Multi-Mode electrode pro or the scTRACE Gold.



1 PCS

6.1801.100

PVC tubing / 4 mm / 7 mm / 5 m



1 PCS

6.2151.000

Cable USB A – mini-DIN 8-pin

Controller cable



1 PCS

6.2703.000

Stand ring for titration vessels



1 PCS

6.2711.090

Drip pan for Professional VA/CVS instruments



1 PCS

6.2739.000

Wrench

For tightening connectors



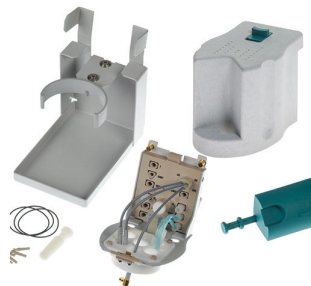
1 PCS

6.2813.050

Dummy cell for Professional VA/CVS instruments



Optional accessories

Order no.	Description	
6.1256.010	RDE measuring head for Professional VA/CVS instruments Measuring head for operation with rotating disk electrodes.	
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.	

6.5339.030

VA electrode equipment with Multi-Mode Electrode pro for Professional VA instruments

Complete electrode set for polarographic and voltammetric determinations. Includes Multi-Mode Electrode pro, reference electrode, platinum auxiliary electrode, measuring vessel, stirrer, electrolyte solution and additional accessories for setting up and operating the Multi-Mode Electrode.



6.5339.040

VA electrode equipment with rotating disk electrode (RDE) made of glassy carbon for Professional VA instruments

Complete electrode set for voltammetric determinations, e.g. using mercury film method. Includes drive for rotating disk electrode, glassy carbon electrode tip, reference electrode, glassy carbon auxiliary electrode, measuring vessel, and electrolyte solution.



6.5339.050

VA electrode equipment with scTRACE Gold for Professional VA instruments

Complete electrode set for the determination of arsenic or mercury. Includes holders for scTRACE Gold, scTRACE Gold, stirrer and measuring vessel.



2.800.0020

800 Dosino

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



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.



6.1110.120

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



6.1454.130

Form seal made of FPM for 61414xxx

for KF and VA instruments



6.5339.510

Basic equipment with 2x 807 Dosing Units for VA measurements for 884 Professional VA

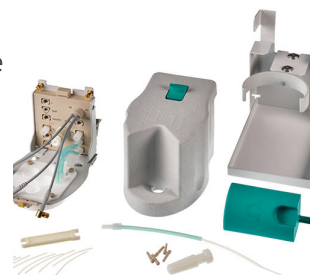
Accessory set for 2 auxiliary solutions for expanding manual VA systems. Includes one 807 Dosing Unit 2 mL and one 807 Dosing Unit 5 mL, clear glass bottles 100 mL, 250 mL and 2 L, bottle holders for 2 bottles, one 4-way micro tip, and connector material. Without Dosinos.



6.1256.030

SPE measuring head for Professional VA instruments

Measuring head for operation with *screen-printed electrodes* (SPE) or the scTRACE Gold.



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.



6.5339.070

VA accessory equipment with SPE electrode shaft for professional VA instruments

Accessory equipment for use with *screen-printed electrodes* (SPE). Contains electrode shaft for screen-printed electrodes, stirrer, and measuring vessel. Without electrodes.



6.5339.080

VA electrode equipment with bismuth drop electrode for Professional VA instruments

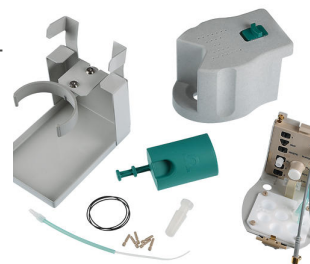
Complete electrode set for voltammetric determinations of heavy metals. Contains bismuth drop electrode, reference electrode, glassy carbon auxiliary electrode, measuring vessel, stirrer, electrolyte solution, and additional accessories.



6.1256.040

RDE measuring head for Professional VA/CVS instruments with high chemical resistance

Measuring head for operation with rotating disk electrodes. Solvent-resistant version for applications in nonaqueous media.



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.



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.
