

µStat 300 Bipotentiostat



01

Ref. STAT300



µStat 300 is the **portable BiPotentiostat** from **Metrohm DropSens** that can be applied for **Voltammetric** and **Amperometric** measurements, including **9 electroanalytical techniques**, and can be used with one- or two- working electrodes configuration.

The new portable bipotentiostat is **Li-ion Battery powered** (USB charger adapter compatible). It can be easily connected to a PC via USB, RS232 and **Wireless connection**.

µStat 300 has seven current ranges: 1 nA to 1 mA, and Auto (the instrument automatically selects the optimal current range), with a **maximum measurable current of 3 mA**.

The supplied **DropView 8400 software** for Windows is used to control the instrument and to plot the measurements and perform the analysis of results. **DropView 8400 software** provides powerful functions such as:

- manual control of the experiment, for tailoring your electrochemical measurements
- plot overlay, peak integration, smoothing, subtraction, derivative curve, baseline fitting, etc
- script editor for programming specific work routines
- peripheral configuration (digital inputs/outputs) for synchronised operation with other devices
- 3D plotting of curves

Available techniques:

POTENTIOSTAT

Voltammetry

LSV	Linear Sweep Voltammetry
CV	Cyclic Voltammetry
SWV	Square Wave Voltammetry
DPV	Differential Pulse Voltammetry
NPV	Normal Pulse Voltammetry

Amperometry

AD	Amperometric Detection
PAD	Pulsed Amperometric Detection
MAD	Multipulsed Amperometric Detection
COUL	Coulometric Detection

www.metrohm-dropsens.com

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Instrument Specifications	
Power	Li-ion Battery (1250 mAh); USB; DC charger adaptor compatible (5V)
PC interface	Wireless connection USB
Operating modes	BIPotentiostat, Potentiostat 1x 8 Channel Potentiostat
DC-Potential range	±2 V
Current ranges	±1 nA to ±1 mA (7 ranges)
Maximum measurable current	3 mA
Voltage ranges	±100 mV, ±1 V (2 ranges)
Applied Potential Resolution	1 mV
Measured Current Resolution	0.025 % of current range 1 pA on lowest current range
Potential Accuracy	±0.2 %
Current Accuracy	≤0.5 % of current range at 100 nA to 10 mA
External inputs/outputs	Iout, Eout 2 Analog inputs 1 Analog output 2 Digital input/outputs TX, RX, RTS signals for RS232 connection
LED indicators	Power, Status, Measuring, Wireless connection
Dimensions	13.2 cm x 10.0 cm x 3.6 cm (L x W x H)
Weight	480 g

Control Specifications			
Pretreatment	Conditioning stage duration:	0 – 1300 s	
	Deposition stage duration:	0 – 1300 s	
	Equilibration stage duration:	0 – 1300 s	
General Parameters	Ebegin, Eend, Ebase, Evtx1, Evtx2:	-2 V to +2 V	
	Step potential:	1 mV to 500 mV	
	Pulse potential:	1 mV to 250 mV	
	Scan rate:	1 ms up to 1.3 s per step	
	WE2 offset:	± 1 V	
Specific Parameters	SWV	Frequency:	1 Hz to 400 Hz
		Amplitude:	1 mV to 250 mV
	DPV, NPV	Modulation time:	1 ms to 1300 ms
	Chrono Methods (AD, MAD, ZRA, COUL)	Pulse time:	1 ms to 1300 ms
		Interval time:	0.1 s to 1300 s
	PAD	Run time:	Hours (65000 points)
		Pulse time:	1 ms to 1300 ms
Interval time:		10 ms to 1300 ms	
Run time:		Hours (65000 points)	

Specifications are subject to change without previous notice

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