

# $\mu$ Stat 200 Bipotentiostat



01

Ref. STAT200



**$\mu$ Stat 200** is a small portable **Bipotentiostat** that can be applied for amperometric measurements at a fixed dc-potential as well as voltammetric measurements like differential pulse and square wave voltammetry. The supplied DropView software for Windows is used to control the instrument and to plot the measurements and perform the analysis of results. The instrument is controlled and powered by means of a USB connection.

**$\mu$ Stat 200** has six current ranges: 1 nA to 100  $\mu$ A, and Auto (the instrument automatically selects the optimal current range), with a resolution of 10 pA on the lowest current range.

The instrument can be tailored for specific applications. All relevant amperometric and voltammetric methods can be programmed for the instrument.

The embedded software of  **$\mu$ Stat 200** can provide all methods which are relevant for electrochemical sensors. The voltammetric methods are used to measure a curve of current versus potential. Amperometric detection is used to record current as a function of time.

## **Available Voltammetric methods**

- Linear Sweep Voltammetry (**LSV**)
- Cyclic Voltammetry (**CV**)
- Square Wave Voltammetry (**SWV**)
- Differential Pulse Voltammetry (**DPV**)

These methods can all be used in their stripping modes which are applied for (ultra-) trace analysis.

## **Available Amperometric method**

- Amperometric Detection (**AD**)
- Pulsed Amperometric Detection (**PAD**)

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Instrument Specifications	
Power	5 V / 45 mA max. USB powered
PC interface	USB
DC-Potential range	±2 V
Current ranges	1 nA to 100 µA (6 ranges)
Maximum measurable current	±200 µA
Current resolution	0.1 % of current range 10 pA on lowest current range
DC-potential resolution	1 mV
DC-offset error	±1 mV
Potential Accuracy	≤0.1 %
Extra inputs/outputs	<ul style="list-style-type: none"> <li>▪ 5 generic digital I/O pins (5 V TTL) [PIO 1, PIO 2, PIO 3, PIO 4, PIO 5]</li> <li>▪ 3 10-bit ADC inputs multiplexing PIO 1, PIO 2, PIO 3</li> <li>▪ I-out: Analog output for cell current monitoring</li> <li>▪ 0 V and +5 V supply outputs</li> </ul>
Dimensions	8.0 cm x 5.4 cm x 2.3 cm (L x W x H)

Control Specifications		
<b>LSV, CV SWV</b>	Scan rate:	1 mV/s to 5.0 V/s
	Frequency:	1 Hz to 400 Hz
	Amplitude potential:	1 mV to 250mV
<b>DPV</b>	Scan rate:	1 mV/s to 2.5 V/s
	Pulse time:	1 ms to 200 ms
<b>AD</b>	Interval time:	100 ms to 1300 s
	Run time:	Hours (65000 points)
<b>PAD</b>	Pulse time:	1 ms
	Run time:	Hours (65000 points)
<b>All techniques</b>	Conditioning stage duration:	0 - 1300 s
	Deposition stage duration:	0 - 1300 s
	Equilibration stage duration:	0 - 1300 s

*Specifications are subject to change without previous notice*

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