

Vertex One

All-Round Potentiostat



the affordable solution for educational and basic electrochemistry

- Compliance $\pm 100\text{mA}$ / $\pm 22\text{V}$
- Applied scan range: $\pm 10\text{V}$
- Data acquisition rate: 100kHz
- Current ranges: 100pA – 100mA, min. resolution 0.01pA
- FRA/EIS 10 μHz to 250kHz (optional)



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Specifications: Vertex One

System Performance	
Current compliance	±100mA
Maximum output voltage	±22V
Potentiostat bandwidth	>250kHz
Rise time	<0.5µs in high speed mode
Stability settings Potentiostat/Galvanostat	High Speed, Standard and High Stability
Programmable response filter	1MHz, 100kHz, 10kHz, 1kHz, 10Hz
Signal acquisition	Dual channel 16bit ADC, 100,000 samples/s

Potentiostat	
Applied potential range	±10V, at 0.333mV resolution
Applied potential accuracy	0.2%, or 2mV
Current ranges	±100pA to ±100mA in 10 steps
Measured current resolution	0.15% of current range, minimum 0.01pA

Galvanostat	
Applied current resolution	0.033% of applied current range
Applied current accuracy	0.2%
Galvanostatic current ranges	±10nA to ±100mA in 8 steps
Measured potential resolution	0.004% of potential range, minimum 0.4µV

<i>Impedance analyser*</i>	
<i>Frequency range</i>	<i>10µHz to 250kHz</i>
<i>Amplitude</i>	<i>0.015mV to 1.0V, or 0.03% to 100% of CR</i>
<i>DC offset</i>	<i>16bit DC offset subtraction, 2 DC decoupling filters</i>

Electrometer	
Input impedance	>1000Gohm // <20pF
Input bias current	<20pA
Bandwidth	>1.5MHz

Environment	
Power requirements	100-240V, 45-65Hz, 4VA via 5V supply (included)
Interfacing	USB
Size (w x d x h)	10 x 19 x 2.5cm
Weight	500g
PC requirements	Windows 7, 8 or 10 with free USB port

*Optional