



# 885 Fuel Cell Potentiostat / Galvanostat

## Integrated Potentiostat / Galvanostat for Fuel Cell Test Systems

The 885 Potentiostat/Galvanostat is designed for automated diagnostics such as CV/LSV when combined with Scribner's fuel cell test systems.



### The 885 features

- Integrated potentiostat / galvanostat for 840 /850 / 855 Series Fuel Cell Test Systems & 890 Series Fuel Cell Test Loads
- Two versions available:
  - Vertical Chassis for use with 850 / 855 (20 mA, 200 mA, 2 A or 50 mA, 500 mA, 5 A)
  - Horizontal Chassis for use with 840 / 890 (50 mA, 500 mA, 5 A)
- Sweep function for CV and LSV measurements
- Automated switching between load and potentiostat operation
- Combine with the 850 Auto Multigas Unit for automated switching between normal fuel cell operation and diagnostic mode (CV/LSV)
- Voltammetry for in-situ fuel crossover & electrochemical surface area measurement
- Galvanic control with fine current resolution for high accuracy Tafel experiments
- The 5A version permits working with larger cells up to 50 to 100 cm<sup>2</sup> and/or cells with ultra-high “true” surface area
- Data analysis with FCView® and CView™ software
- Optional FRA for EIS measurements (1mHz to 40 kHz)
- ZView® for graphing & analysis of EIS data



Experiment setup



885 combined with 850



Now Available with EIS



## SPECIFICATIONS: 885 Fuel Cell Potentiostat / Galvanostat

### Cell Connections:

Cell Connections	2, 3 or 4 terminal Max. pass-through current : 200 Amps
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### Working Electrodes:

Vertical or Horizontal 5A Model	<b>Current:</b> 5 A, 50 mA, 500 mA <b>Resolution:</b> 305 $\mu$ A (5 A range) to 3.05 $\mu$ A (50 mA range)
Vertical 2A Model	<b>Current:</b> 2 A, 200 mA, 20 mA & <b>Resolution:</b> 122 $\mu$ A (2 A range) to 1.22 $\mu$ A (20 mA range)

### Counter Electrode:

Output Voltage vs. WE	$\pm 3$ V
Max. Current	$\pm 2$ A or $\pm 5$ A (short circuit protected)

### Reference Electrode:

Type	Differential w/driven shields
Input V range	-3 to +3 V
Differential V range	-3 to +3 V
Resolution	152 $\mu$ V
Capacitance	150 pF
Limit of Error	0.3% of reading + 3 mV

### DC Polarization:

Voltage Range	-3 V to +3 V
Limit of Error	0.25%
Resolution	125 $\mu$ V

### Sweep Functions:

Scan Rates	1 mV/sec to 1 V/sec
Data Acquisition Speed	100 points/sec

Specifications for 25 °C ambient temperature unless otherwise noted.