

# fuel cell EZlab

- ▶ Low-Cost, Research Grade Single-Cell Fuel Cell Test Stand Featuring EZStat Potentiostat/Galvanostats



# fuel cell EZlab

## potentiostat/galvanostat

The EZlab module is the latest accessory for the EZstat series of potentiostat/galvanostats. It is a fully-equipped fuel cell test station with options for hydrogen/air and liquid feed direct methanol single-cell fuel cell operation. The EZlab is designed for simplicity and safety, enabling selections of reactant streams, temperature, humidity, and flow rate control of both electrodes. The EZlab can also be controlled by Gamry, Bio-Logic, Solartron Analytical, Eco Chemie, Princeton Applied Research, and CH Instruments potentiostats as well as by NuVant's Powerstat series of potentiostats.

The Fuel Cell EZlab is designed with the student in mind. It's purpose is to provide robust, simple, neatly-packaged and fully-equipped fuel cell test stand to the user. All fuel cell components and instrumentation are clearly presented and labeled, assisting the user in understanding the operation of the cell.

The Fuel Cell EZlab comes standard with all the equipment required to run H<sub>2</sub>/Air fuel cells. Equipment for use with methanol fuel cells is optional.



### Capabilities

- Fully equipped: all fuel cell ancillary equipment easily visible and accessible for superior learning experience
- Precise volumetric flow rate control at both sides of fuel cell
- EZWare programmable temperature control allows for precise fuel cell humidity control
- Safe, reliable switching of reactant streams

### Applications

- University Labs: Ideal for students
- Research Labs

## specifications

**EZstat**

user friendly  
customized software upgrades

### Standard Equipment

- 1x Single-Cell Fuel Cell, 1cm<sup>2</sup> active area
- 2x stainless steel humidifier bottles with heated flexible transfer lines
- 5x temperature controllers for humidifier bottles, transfer-lines and fuel cell
- 2x stainless steel pressure regulators, 0-20 psi output, 0-500 psi input
- 2x liquid-filled pressure gauges, 0-30 psi
- 2x high-precision stainless steel flow meters, 0-260 sccm (air)
- 2x 5-way stainless steel switching valves for gaseous reactant selection. Safety stop installed to prevent mixture of incompatible gases within fuel cell.

Anode	Cathode
Purge N <sub>2</sub>	5% H <sub>2</sub> balanced N <sub>2</sub>
5% H <sub>2</sub> balanced N <sub>2</sub>	Purge N <sub>2</sub>
N <sub>2</sub>	Air
H <sub>2</sub>	O <sub>2</sub>

- 2x on/off stainless steel ball valves

### Recommended Equipment

- 1x Peristaltic liquid-feed pump for use with methanol
- 1x EZStat Basic potentiostat/galvanostat

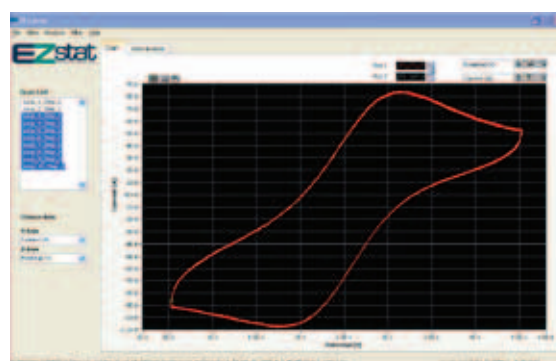
### EZstat Basic Specifications

- 100 mV/s maximum scan rate
- ±2.5V potential range
- 15V compliance voltage
- EZWare software package
- 120VAC input



The EZlab module is designed to be paired with our EZStat line of potentiostat/galvanostats. These units integrate seamlessly into the EZlab chassis, and share the same user-friendly and cost-effective characteristics as the EZlab.

A fuel cell EZlab paired with an EZstat potentiostat/galvanostat is a truly complete fuel cell laboratory in a single, simple, easy-to-use package.



Powered by



The Fuel Cell EZlab is  
designed with the  
student in mind.

 **NuVant Systems Inc.**

www.nuvant.com - toll free: (866) 894-7337



Leading The World To Advanced  
Electrochemical Technologies

## about us

NuVant Systems develops and licenses advanced electrochemical reactors and electrode component evaluation instrumentation. We specialize in fully automated high throughput electrochemical screening equipment and test stand assemblies for single cell analysis. Our components are designed to help drive commercialization of electrochemical reactors for energy production and electrosynthesis. We develop cost effective, innovative technologies that will assist manufacturers in bringing their products to market.

NuVant Systems licenses its technology to researchers, developers and manufacturers. NuVant offers contract research in the areas of catalyst discovery and fuel cell system prototyping. Our technology is applicable primarily to stationary power and portable power fuel cell applications, but can be modified for other electrochemical technologies.

## contact information

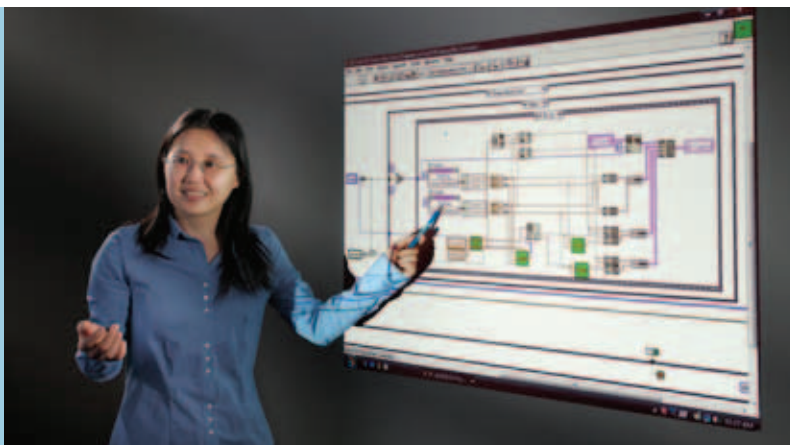


### **NuVant Systems Inc.**

Purdue Technology Center  
9800 Connecticut Drive  
Crown Point, IN 46307

### **US/Canada:**

Toll free: (866) 894-7337  
Phone: (219) 644-3231  
Email: [info@nuvant.com](mailto:info@nuvant.com)



Other products available from  
NuVant Systems include:

- Potentiostat/Galvanostats
- Multichannel Potentiostats
- Single Cell and Array Fuel Cells
- Electrochemical Process Control
- Electrode Fabrication
- Combinatorial Electrochemistry
- Short Courses
- Rapid Prototyping



[www.nuvant.com](http://www.nuvant.com) - (866) 894-7337