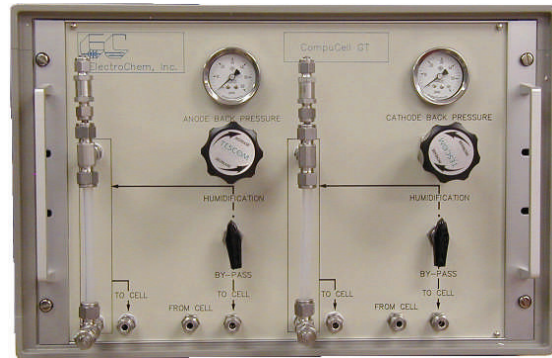


PowerStation-CompuCell™ Get Started with Complete Control!

- Two Independent Gas Lines
- Highest Quality Humidification Capacity
- Automatic or Manual Operation
- A Decade of Product Refinement



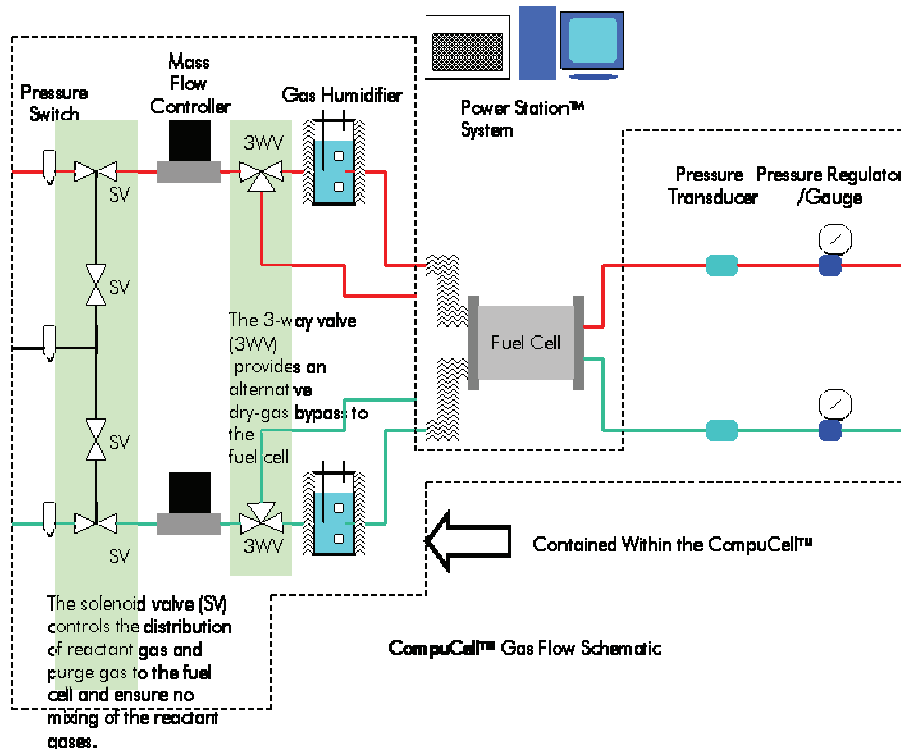
ElectroChem's CompuCell™ gas management unit enables fuel cell and electrochemical testing for PEM, alkaline, and phosphoric acid fuel cells, providing capacity for single cells and fuel cell stacks. Fully integrated with the Power Station™, it allows total control of input and output gas conditions for all your fuel cell testing needs.

Key Features

- Precision automated gas supply, humidification and effluent management.
- Convenient front panel access to manual controls, and output and return gas fittings.
- Safety designed in through hardware features and software control.
- Front panel bypass valve for humidified or dry gas Switching.

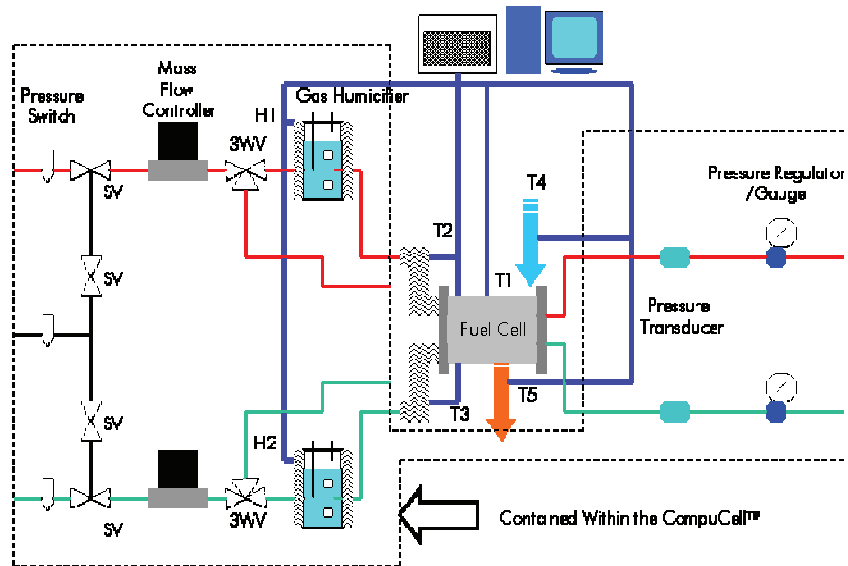
For further detailed specifications please check the PowerStation paragraph (page 3-12).

Gas Flow control





Temperature and Humidification Control

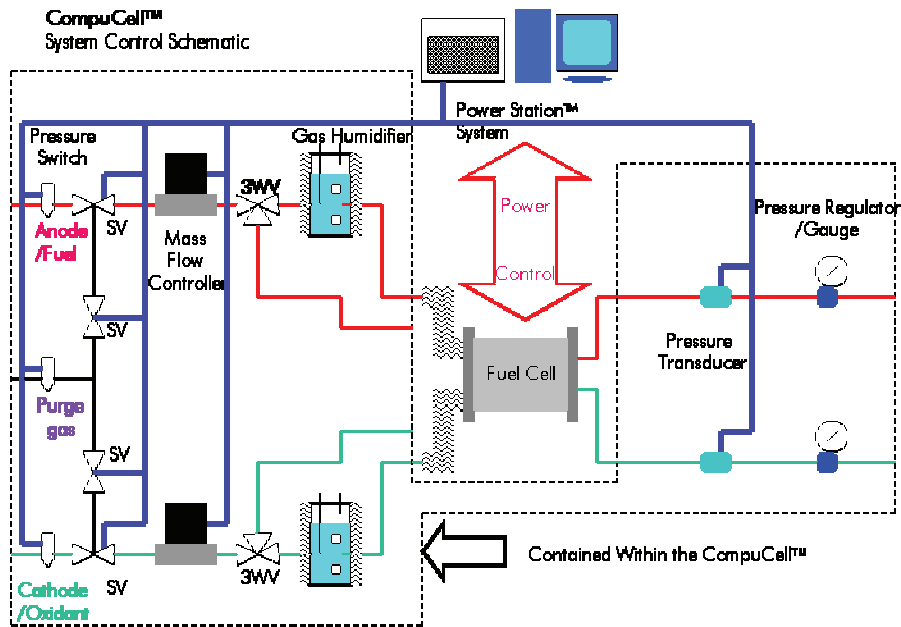


H1: Anode humidifier temperature
H2: Cathode humidifier temperature

T1: Fuel cell temperature
T2: Anode gas inlet temperature
T3: Cathode gas inlet temperature
T4: Coolant inlet temperature
T5: Coolant outlet temperature

CompuCell™
Temperature Control Schematic

CompuCell™ System Control



CompuCell™
System Control Schematic



Conforms to the directives
of the European
Community for safety in
laboratory equipment.





Suggested Accessories from ElectroChem, Inc.

- **DMFC** - Methanol reservoir and fuel pump. Computer Controlled for precision, variable condition, and unattended testing.
- **GTL** - Heated Gas Transfer Lines. Temperature controlled by the Power Station, guaranteeing gas conditions to the cell.
- **Moisture Traps** - Capture of downstream condensed water.

Specifications (for detailed specifications please check the PowerStation paragraph (page 3-12))																											
Pressure	Maximum Operating Pressure 50 psig (ca. 4,5 bar)																										
Humidifiers (each)	100% saturation at 75°C for Input Gas Flow of 2000 ml/min. 2 liter water bottles (max. fill capacity 1.6 liters)																										
Mass Flow Controllers	<table border="0"> <tr> <td>Full Scale Ranges Available</td> <td>10 to 20000 sccm</td> </tr> <tr> <td>Control Range</td> <td>2% to 100% of Full Scale</td> </tr> <tr> <td>Accuracy</td> <td>+/- 1% of Full Scale</td> </tr> <tr> <td>Repeatability</td> <td>+/- 0,2% of Full Scale</td> </tr> <tr> <td>Resolution</td> <td>0,1% of Full Scale</td> </tr> <tr> <td>Wetted Materials</td> <td>316L SS, Viton™, nickel</td> </tr> </table>	Full Scale Ranges Available	10 to 20000 sccm	Control Range	2% to 100% of Full Scale	Accuracy	+/- 1% of Full Scale	Repeatability	+/- 0,2% of Full Scale	Resolution	0,1% of Full Scale	Wetted Materials	316L SS, Viton™, nickel														
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Physical Characteristics	17 1/2" W x 12 1/4" H x 18 1/2" D (44 cm x 31 cm x 47 cm) 42 lbs. (19 kg)																										
Gas Connections	<table border="0"> <tr> <td colspan="2">1/4" Swagelok™ Tubing Connectors</td> </tr> <tr> <td colspan="2">Front Panel</td> </tr> <tr> <td>Output Humidified Reactant Gases to Fuel Cell</td> <td>2</td> </tr> <tr> <td>Output Unhumidified Reactant Gases to Fuel Cell</td> <td>2</td> </tr> <tr> <td>Manual 3 Way Valves on Reactant Gas Lines</td> <td>2</td> </tr> <tr> <td>Reactant Return Gases from Fuel Cell</td> <td>2</td> </tr> <tr> <td>Ports for Refill of Humidifier Bottles</td> <td>2</td> </tr> <tr> <td colspan="2">Rear Panell</td> </tr> <tr> <td>Input Reactant Gases</td> <td>2</td> </tr> <tr> <td>Input Purge Gas</td> <td>1</td> </tr> <tr> <td>Output Venting of Reactant Gases</td> <td>2</td> </tr> <tr> <td>Reactant Gas Supply to Ultima Module</td> <td>2</td> </tr> <tr> <td colspan="2">(used in Power Station™ Ultima™ System only)</td> </tr> </table>	1/4" Swagelok™ Tubing Connectors		Front Panel		Output Humidified Reactant Gases to Fuel Cell	2	Output Unhumidified Reactant Gases to Fuel Cell	2	Manual 3 Way Valves on Reactant Gas Lines	2	Reactant Return Gases from Fuel Cell	2	Ports for Refill of Humidifier Bottles	2	Rear Panell		Input Reactant Gases	2	Input Purge Gas	1	Output Venting of Reactant Gases	2	Reactant Gas Supply to Ultima Module	2	(used in Power Station™ Ultima™ System only)	
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Electronic load	Power: 800 Watts (also available 2000W or 4000W) Selectable Voltage: 0-10, 0-20, and 0-50 Volts Selectable Current: 0-2, 0-20, and 0-150 Amps Constant Current and Voltage Mode: - Accuracy: ± 0,25% FS for med/high ranges ± 0,50% FS for low range - Resolution: 1/4000 of full scale Constant Power Mode: - Accuracy: ± 3% FS for all ranges - Resolution: 0,25% of full scale																										
Electrical Requirements	All power and control connections provided by Power Station™ Control Unit*																										

* The CompuCell™ Gas Management Unit is also compatible with ElectroChem's Ultima™ Gas Management Unit and the PS - Ultima™ System Controller. In that configuration provides the interface for the purge gas safety system and reactant gas supply pressure sensors.

