



## Series 3000 High Capacity Vacuum Switchover With Electronic Position Switch

Hydro Instruments has been manufacturing the highest quality, longest lasting and most reliable gas chlorination equipment since 1978. Our equipment is manufactured in the USA using only the highest quality materials for both chemical resistance and physical durability.

Hydro Instruments constructs its products using parts that are precision machined from the best materials for gas service.

### Features

- Up to 4,000 PPD (80 Kg/h) Cl<sub>2</sub> or SO<sub>2</sub>  
Also available for Ammonia NH<sub>3</sub> and Carbon Dioxide CO<sub>2</sub>
- Switchover occurs automatically and does not require to be reset or need operator interaction of any kind
- Mounting panel for easy installation
- Sch.80 PVC union inlet/outlet connections
- Electronic position switch with indicator LED's and output



### Principle of Operation

Two vacuum regulators, each with an independent gas supply are connected to the gas inlets on the left and right side of the automatic switchover module. One vacuum regulator and its gas supply will be 'in service' and the other in 'standby'.

Gas will flow through the automatic switchover module under vacuum from the 'in service' vacuum regulator to a flowmeter & feed rate control device until the gas supply is depleted. The vacuum level within the vacuum regulator will then increase to a point in which the spring-loaded toggle assembly inside the automatic switchover module activates. The open port on the depleted side of the module will close and the closed port on the standby side of the module will then open to permit gas flow.

When the depleted gas supply is replaced, this gas supply and its vacuum regulator automatically becomes the standby.

An integrated electronic switch is used to determine the position of the switchover module. The switch activates a set of LED's to visually indicate which side is feeding and provide a contact output.

### Capacity & Ordering Information

Part Number	Description
SOH-2000-CL2-ES	Switchover module w/ electronic position switch, 1" PVC union inlets & outlet 2,000 PPD (40 kg/h) max.
SOH-4000-CL2-ES	Switchover module w/ electronic position switch, 1.5" PVC union inlets & outlet 4,000 PPD (80 kg/h) max.



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## Specifications

### 1. General

- A. The switchover module shall be an external, mechanically vacuum operated device capable of automatically switching from an exhausted gas supply to a standby gas supply.
- B. The switchover module shall have a chlorine gas feed capacity of up to 4,000 pounds per day (80 kg/hr).
- C. The switchover module shall be constructed of materials suitable for wet or dry chlorine gas service.

### 2. Automatic Switchover Module

- A. The switchover module shall include the following:
  - 1. A bracket for wall mounting.
  - 2. Sch.80 PVC union inlet and vacuum connections.
- B. The switchover module body parts shall be constructed of solid machined PVC material for maximum durability and cracking resistance.
- C. All switchover module spring shall be made of Hastelloy.
- D. The switchover module shall operate automatically and entirely by vacuum with no requirement for external adjustment or reset.
- E. The device shall be provided with a proximity switch to detect which side is feeding and provide electronic switch indication to SCADA.
- F. Two (2) large LED indicator lights shall be provided for visual indication of which side is feeding.

### Installation Example

