



## Series 110 Omni-Valve Automatic Control Valve

### *The valve that does it all.*

- Excellent accuracy
- Perfect repeatability
- Maximum versatility
- Remote adjustment & monitoring
- Gas or Liquid service
- Designed for minimal wear and long life

With the capability of operating in eight different control modes, handling a wide range of chemicals, covering an even larger range of capacities and having a multitude of control options, adjustment features and settings; the Hydro Instruments Series 110 Omni-Valve is truly an all-in-one automatic control valve for chemical feed.



### Control Options:

1. Manual
2. Proportional (i.e. Flow Pacing)
3. Set Point—Residual
4. Set Point—ORP
5. Compound Loop (i.e. PID)
6. Step Feed
7. Dual Input Feed Forward
8. Dual Set Point

Control modes are field selectable and can be changed at any time.

### Features:

- Backlit display (LCD)
- Modbus Communication (RS485)
- Remote Automatic / Manual control
- Remote Duty / Standby control
- 3x 4-20mA analog inputs:  
Flow, Residual/ORP and Remote Dosage
- 2x 4-20mA analog outputs:  
Feed rate and/or Process Variable #1
- 2x SPDT alarm relays
- Linear Operation—Eliminates all rotating motion, rotary drive shafts & gears
- V-notch feed control

Due to Hydro Instruments' innovative approach to manufacturing, the Omni-Valve is the industry's first true directly linear drive control valve design. This linear design provides vast improvements over problematic rotary driven valves. The Omni-Valve is the clear industry leader; offering eight different control modes and a vast array of flexible settings and features. Hydro Instruments' state-of-the-art microprocessor technology, highest quality materials of construction, precision machining and minimal number of moving parts make the Omni-Valve extremely reliable over long periods of continuous operation and truly the best automatic control valve on the market.



## Basic Specifications

### Maximum Capacity

Chlorine:	3,000 PPD / 60 Kg/h Cl <sub>2</sub>
Sulfur Dioxide:	3,000 PPD / 60 Kg/h SO <sub>2</sub>
Ammonia:	1,000 PPD / 20 Kg/h NH <sub>3</sub>
Carbon Dioxide:	2,400 PPD / 48 Kg/h CO <sub>2</sub>

### Available Connections

Up to 250 PPD:	1/4" NPT inlet / outlet
Up to 500 PPD:	1/2" NPT inlet / outlet
Up to 2000 PPD:	1" NPT inlet / outlet
3000 PPD:	1.5" Socket inlet / outlet

### Communication

Modbus:	RS485 RTU
Profibus:	Optionally supported
Analog Inputs:	(3x) 4-20mA Flow, Residual/ORP, Remote dosage
Analog Outputs:	(2x) 4-20mA Gas feed rate and/or Process variable No.1
Relays:	(2x) 10A SPDT
VDC Contacts:	(4x) 12-24 VDC inputs for Step Feed control, Duty / Standby and var. other features.

### Electrical

AC Power:	100-240 VAC 50/60 Hz
DC Power (optional):	24 VDC

### Warranty

Coverage:	1 year (Limited)
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