



For use in the addition of acids and bases to plating solutions, neutralization of waste streams, chemical reactions, cooling tower and boiler feed preparation, process control monitoring and recording.



- Convenient, pre-wired wall-mount design in a NEMA 4X/IP65 enclosure
- Menu-driven for ease of programming
- Easy-to-read 16-character fluorescent display
- Dual output models for either ON/OFF or pulse control of one or two pumps
- Built-in audible alarm for out-of-range HIGH/LOW pH/ORP, excess replenishment time and self-diagnostics
- Manual control output for priming pumps, system testing, etc.

#### OPTIONAL:

- Analog output and HIGH/LOW alarm relays
- In-line & submersion electrodes with temperature compensation

Model 50 and 60 controllers use microprocessor technology to measure and control pH or ORP levels easily and accurately in a variety of applications.

Operating either controller is a simple, straightforward procedure. All setpoints are selected by scrolling through the menu which appears on the alpha-numeric display. Desired values are entered through the keypad; no potentiometers need to be adjusted. Messages on the display guide you through calibration and setup.

Two-point calibration of standardization and slope ensures accurate measurements in a fraction of the time, eliminating tedious knob twisting and guesswork. Plus, you can keep track of your electrode degradation for easy troubleshooting.

Front panel HIGH and LOW alarm setpoints provide easy access, while ensuring your effluent meets requirements. The unit's relays automatically activate pumps, valves, or audible alarms. An internal alarm/buzzer signals if setpoint is not maintained. Full input isolation is

provided to protect the input from leakage currents and troublesome ground loops.

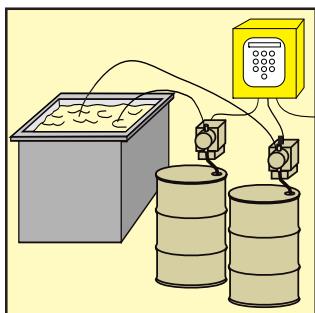
Model 50 pH controllers have ON/OFF mechanical relays as control outputs, with an adjustable dead band or timer for output deactivation when the setpoint is reached.

Model 60 modulated pulse directly pulses externally controlled metering pumps to adjust chemical flow in proportion to the measured value. No additional interfacing module is required. The pH or ORP value at which maximum pulses occur is fully adjustable.

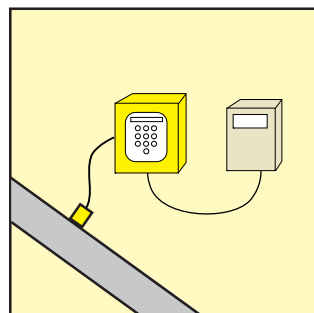
During operation, problem conditions trigger an audible alarm and are displayed. These include out-of-range pH or ORP, excess pump on-time, electrode problems, memory failure, and faulty setpoint entries.

An optional adjustable zero and span for transmitted output or proportional control may be used for input to a chart recorder, to control automatic valves, to interface process control systems or to control chemical feed pumps.

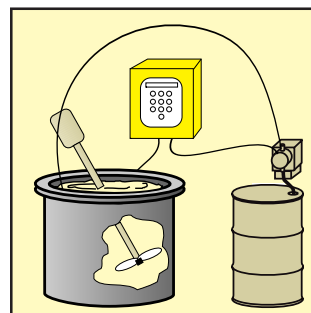
All units have a user programmed digital access code.



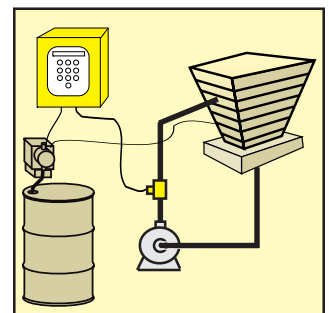
PROCESS CONTROL



WASTE STREAM  
MONITORING



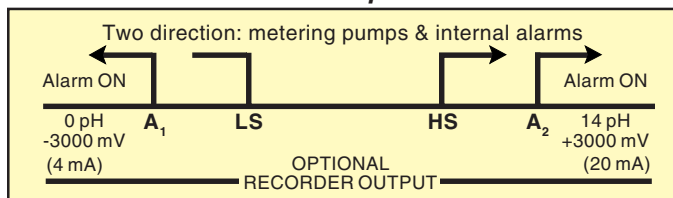
WASTE NEUTRALIZATION /  
RECYCLING



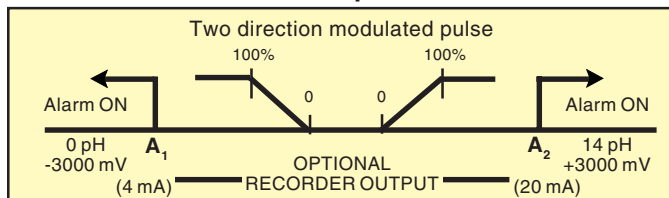
COOLING TOWER

**TYPICAL CONTROLLER CONFIGURATIONS**

**Model 50 ON/OFF Dual Pump Control**



**Model 60 PULSE Dual Pump Control**



**SPECIFICATIONS**

Power requirements: 115VAC ±15%/50/60 Hz (fused 6A) or 230VAC ±15%/50/60 Hz (fused 3A) For other voltages, consult Application Engineering Dept.	Range: 0-14 pH, ± 3000mV
Input from probe: mV signal, 10 <sup>13</sup> ohm minimum input resistance	Resolution: 0.01 pH, 1 mV
Automatic Temp. Comp: Pt1000 ohm RTD, pH versions only	Enclosure: Fiberglass, NEMA 4X /IP 65
Alarms: Audible, internal HIGH/LOW with horn	Stability: 0.01 pH, 2 mV
<b>Model 50 Control Outputs:</b> HIGH/LOW setpoints (adjustable deadbands). Powered mechanical relays : 10 amp (resistive) @ 115 VAC [5 amp (resistive) @ 230 VAC] or 6 amp (inductive) @ 115 VAC [3 amp (inductive) @ 230 VAC]. Includes two 10 ft. cords with 3-prong straight blade receptacles (for ON/OFF to pumps).	Temperature range: 32° to 212°F (0° to 100°C) Temperature accuracy: ± 1°C Temperature resolution: 0.1°C
<b>Model 60 Control Outputs:</b> Proportional bi-directional pulse solid state contacts (unpowered) Opto-isolators rated at 27 VDC max. 50 mA max. Includes two 10 ft. cables with 4-prong connectors to pumps	Net weight: 5.1 lbs.

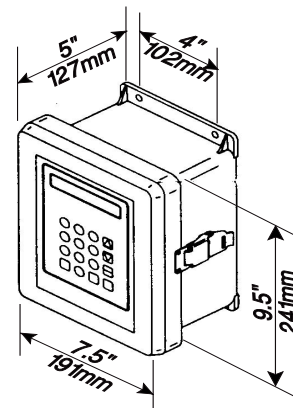
**TO ORDER, use Price Code Number**

MODEL NO.	MODE OF PUMP CONTROL	PRICE CODE NO.	CONTROLLER		LINE VOLTAGE <sup>4</sup>	
			Add to MODEL NO.	Add to PRICE CODE NO.	Add to MODEL NO.	Add to PRICE CODE NO.
50	ON / OFF, Dual pump control	56-06	-P (pH) or -O (ORP)	1 or 2	115 (60Hz, USA cord) 230 (50Hz, DIN cord) 230 (50Hz, UK cord)	1 2 3
60	Pulse, Dual pump control	56-07				

**OPTIONAL**

DESCRIPTION		Add to MODEL NO. & PRICE CODE NO.	
<b>EXTRA OUTPUT</b>			
Proportional 4-20 mA isolated output (700 ohm max.)		P	
Auxiliary HIGH and LOW alarm output Solid state triacs, 1A (resistive) max., VAC only 230 VAC max., power not supplied		A	
<b>ELECTRODES</b> : Cartridge type, gel-filled double junction, CPVC with 20 ft. cable <sup>3</sup> and BNC connections. Wetted materials of construction: CPVC, HDPE, Viton <sup>®</sup> and glass (platinum for ORP electrodes)		<b>PRICE CODE NO.</b>	
pH Submersion, ½" NPT,	N-TC <sup>1</sup>	56-0600	
ORP (User supplies pipe and	N-TC <sup>1</sup>	56-0601	
pH coupling)	A-TC <sup>2</sup>	56-0602	
pH In-line, ¾" NPT	N-TC <sup>1</sup>	56-0603	
ORP (User supplies pipeline tee)	N-TC <sup>1</sup>	56-0604	
pH	A-TC <sup>2</sup>	56-0605	

- <sup>1</sup> Non-temperature compensated
- <sup>2</sup> Auto-temperature compensated
- <sup>3</sup> For longer cable, consult Application Engineering Dept.
- <sup>4</sup> Standard unit may be field set to 115 or 230 VAC. Requires fuse change, 6A to 3A.



Registered trademark:  
Viton-DuPont

Specifications subject to change without notice.

F.O.B. Northbrook, Illinois

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