

# PULSAtron<sup>®</sup> PLUS

**PULSAFEEDER<sup>®</sup>**  
A Unit of IDEX Corporation

## Series CW Conductivity Control with Water Meter Feed

The Series CW was designed to control conductivity and feed inhibitor in an open-air cooling tower. Chemical feed is initiated and controlled by input from a water meter. The Series CW combines everything you need to control conductivity and feed inhibitor into one unique, compact package to create a simple and cost effective metering and control system.

### Principal of Operation

The Series CW includes a solenoid actuated metering pump, conductivity sensor, bleed relay and a dry contact input for water meter control. At set-up, the operator sets the conductivity set point, differential (or dead-band), the pump stroke frequency and run time. When conductivity reaches the set point, the system activates the bleed relay.

As make-up water passes through the water meter, it generates a series of pulses based on the volume of flow. The pump counts the pulses until the total reaches the Count set point. The pump runs at the frequency and run-time specified at set-up and the count is reset.

### Operating Benefits

- **Complete Control System** in one unique package. All control functions are integrated into the pump eliminating the expense of purchasing and installing a separate controller.
- **Easy to program User Interface.** Simply press the universally recognized symbol key identifying the function you wish to adjust and change the value with the up or down arrow key.
- **4-electrode conductivity cell.** New electrode technology enhances accuracy and stability of the conductivity measurement providing a greater level of control within your application.
- **Water Meter Input.** User determines the amount of chemical to feed based on the volume of make-up water. Programmable run time, stroke frequency and count set point combine to provide precise control over the amount of chemical used.
- **Programmable Limit Timer.** If the Pulse Count is set to zero, the timer function becomes a Limit Timer. This allows the user to limit the run time on the pump for each 'feed & bleed' cycle regardless of the input from the water meter. The run time can be set to run up to 24 hours in 1 minute increments.

- **Reliable metering performance.** Guided check valves with the proven seat and ball designs make PULSAtron the most reliable metering pumps in the world. PULSAtron pumps are known for excellent suction lift characteristics resulting in highly dependable chemical additions.
- **Rated 'hot' for Continuous duty.** PULSAtron Plus pumps continue to meet their specifications for pressure and capacity during extended use. The solenoid is separately encapsulated in a fin-cooled, thermal-conductive enclosure that effectively dissipates heat away from the electronics.
- **Leak-free, wet end without seals.** Our diaphragms are of superior construction – PTFE-faced, bonded to a composite of Hypalon that is reinforced with fabric layers and driven with a metal insert for optimum flexibility and durability.



technology  
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excellence

# PULSAtron PLUS Series CW Specifications

Four distinct models are available, having pressure capabilities to 150 PSIG/10 BAR at 6 GPD/0.9 LPH and flow capacities to 30 GPD/4.7 LPH at 100 PSIG/7 BAR with a 100:1 turndown ratio. Metering performance is reproducible to within  $\pm 2\%$  of maximum capacity. For full model selection information refer to Price Schedule EMP-PS LP.

- 120VAC or 250VAC @ 50/60 HZ, 5A max
- 4-electrode conductivity input
- 0-6000  $\mu\text{S}/\text{cm} \pm 1\%$ , temperature compensated
- Relay rated to 5A at 240VAC
- Isolated dry contact flow switch input
- Isolated dry contact water meter input
- 4 Digit LED, 9 key membrane keypad
- Single-button function keys
- Set, Differential, Calibration, Pulse Timer, and Count functions
- Stroke rate adjusts 0-100% in 1% increments, turndown ratio 100:1

## Pressure and Flow Rate Capacity

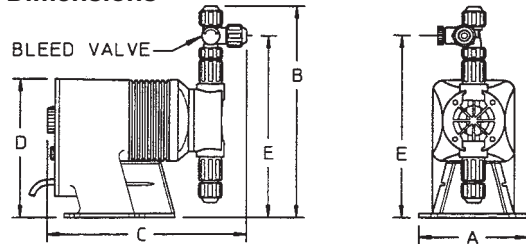
Capacity, nominal	GPH	0.25	0.50	1.00	1.25
	GPD	6	12	24	30
	LPH	0.9	1.9	3.8	4.7
Pressure, max PSIG/Bar					
150/10	LW02	LW03	--	--	
100/7			LW04	LW64	

## Liquid End Materials

Series	Pump Head	Diaphragm	Check Valves		Fittings	Bleed Valve	Injection Valve Assembly Foot Valve Assembly	Tubing
			Seats/O-Rings	Balls				
Series CW	GFPPL PVC SAN PVDF	PTFE-faced Hypalon-backed	PTFE, Hypalon, Viton	Ceramic, PTFE	GFPPL PVC PVDF	Same as fitting and check valve selected, except 316SS	Same as fitting and check valve selected	Clear PVC White PE

**Important:** Material Code— GFPPL = Glass-filled Polypropylene, PVC = Polyvinyl Chloride, SAN = Styrene-Acrylonitrile, PE = Polyethylene, PVDF = Polyvinylidene Fluoride. Hypalon and Viton are registered trademarks of E.I. DuPont Company. PVC wetted end recommended for sodium hypochlorite.

## Dimensions



Series CW Dimensions (inches)						
Model No.	A	B	C	D	E	Shipping Weight (lbs.)
LW02	5.0	9.6	9.5	6.5	8.2	13
LW03	5.0	9.9	9.5	6.5	8.5	13
LW04	5.0	9.9	9.5	6.5	8.5	13
LW64	5.0	9.9	9.5	6.5	8.5	13

Note: Inches x 2.54 = cm

## KOPkit®

Available for every model, the KOPkit provides an economically priced package of parts required for routine maintenance. The kit typically contains new valve cartridges with o-rings, head, diaphragm, secondary o-ring seal, head screws and washers.

For further KOPkit information, refer to Technical Sheet No. GB-045.



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## Standard Product Operations

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