

# WALCHEM ELECT. METERING PUMPS 7900

IRRIGATION

INDUSTRIAL

## WALCHEM

### EHB/EHC Series



Unique modular design features two different control panel options. Y Module features digital speed control (1-360 spm) with pulse input (multiplier / divider) and a programmable 4-20 mA input. The economical R Module features speed control, digital pulse input and external start/stop.

- Advanced 360 spm operation
- Excellent control from 900:1 (Y Module) to 125:1 (R Module) turndown ratios
- Output from 0-6.7 gph (420 ml/min) at pressures ranging from 0-215 psi (1.5 MPA)
- EH2 2-year "bumper-to-bumper" warranty

ITEM	DESCRIPTION
79000019	EHB10R1PE WALCHEM 0.6GPH PUMP
79000046	EHB15R1PE WALCHEM 1.0GPH PUMP
79000050	EHB20R1VC WALCHEM 1.5GPH PUMP
79000062	EHB20R1TC WALCHEM 1.5GPH PUMP
79000116	EHC30R1VC WALCHEM 4.3GPH PUMP
79000120	EHC30R1PC WALCHEM 4.3GPH PUMP
79000178	EHC35R1VC WALCHEM 6.7GPH PUMP
79000186	EHC35R1FC WALCHEM 6.7GPH PUMP
79000189	EHC35Y1VC WALCHEM 6.7GPH PUMP

### EHE Series



The workhorse of the EH family, no other electronic metering pump can match the power and performance of the EHE. Powered by 360 spm advanced electronics, the EHE features superior mechanical design and quality.

- Advanced 360 spm operation
- Excellent control with 1800:1 turndown ratio
- Output from 0-20 gph (1250 ml/min) at pressures from 0-150 psi (1.0 MPA)
- Digital pulse input with pulse multiplier and divider
- Direct analog input (4-20, 20-4, 0-20, 20-0 MA selectable)
- EH2 2-year "bumper-to-bumper" warranty

ITEM	DESCRIPTION
79000128	EHE30E1VCV WALCHEM 5.5GPH PUMP
79000138	EHE30E1PC WALCHEM 5.5GPH PUMP
79000146	EHE35E1VC WALCHEM 8.5GPH PUMP
79000147	EHE35E2VC WALCHEM 8.5GPH 230V
79000150	EHE35E1VE WALCHEM 8.5GPH PUMP
79000155	EHE35E1-PC WALCHEM 8.5GPH PUMP
79000157	EHE35E1-PE WALCHEM 8.5GPH PUMP
79000160	EHE35E1PCV WALCHEM 8.5GPH PUMP
79000190	EHE45E1VC WALCHEM 12GPH PUMP
79000195	EHE45E1-PC WALCHEM 12 GPH PUMP
79000197	EHE45E1-PE WALCHEM 12 GPH PUMP
79000280	EHE55E1VE WALCHEM 20.0GPH PUMP
79000283	EHE55E1VCV WALCHEM 20.0GPH PMP
79000285	EHE55E1VEV WALCHEM 20.0GPH PMP
79000290	EHE55E1-PC WALCHEM 20 GPH PUMP
79000294	EHE55E1-PE WALCHEM 20 GPH PUMP

### EZB Series



Simply stated, the EZ packs all of the same 360 spm technology of its bigger siblings into the industry's easiest pump to operate. The EZ is the best on/off pump on the market. Built to prime, hold prime and to last...the EZ series metering pump offers precise chemical injection at an economical cost.

- Advanced 360 spm operation
- Excellent control 50:1 turndown ratio
- Output from 0-32 gph (200 ml/min) at pressures ranging from 0-150 psi (1.0 MPA)
- EH2 2-year "bumper-to-bumper" warranty

ITEM	DESCRIPTION
79000210	EZB10N1VC WALCHEM 0.6GPH PUMP
79000211	EZB10D1VCA WALCHEM 0.6GPH PUMP
79000212	EZB10D1VE WALCHEM 0.6GPH PUMP
79000218	EZB10N1TC WALCHEM 0.6GPH PUMP
79000220	EZB10D1PC WALCHEM 0.6GPH PUMP
79000232	EZB15T1VCA WALCHEM 0.9GPH PUMP
79000233	EZB15D1VCA WALCHEM 0.9GPH PUMP
79000235	EZB15N1VC WALCHEM 1.0GPH PUMP
79000236	EZB15N1VE WALCHEM 1.0GPH PUMP
79000238	EZB15N1PC WALCHEM 1.0GPH PUMP
79000240	EZB15N1PE WALCHEM 1.0GPH PUMP
79000242	EZB15N1TC WALCHEM 1.0GPH PUMP
79000260	EZB20D1VC WALCHEM 1.5GPH PUMP
79000262	EZB20N1VE WALCHEM 1.5GPH PUMP
79000264	EZB20N1PC WALCHEM 1.5GPH PUMP
79000267	EZB30N1VC WALCHEM 3.2GPH PUMP
79000268	EZB30N1VE WALCHEM 3.2GPH PUMP

### STANDARD MATERIALS OF CONSTRUCTION

<b>CE</b>	Alumina ceramic	<b>PTFE</b>	Polytetrafluoroethylene
<b>EPDM</b>	Ethylene propylene diene monomer	<b>PVC</b>	Polyvinylchloride (translucent)
<b>FKM</b>	Fluoroelastomer	<b>PVDF</b>	Polyvinylidene fluoride
<b>GFRPP</b>	Glass fiber reinforced polypropylene	<b>SS</b>	316 stainless steel
<b>HC</b>	Hastelloy C276	<b>PCTFE</b>	Polychlorotrifluoroethylene
<b>PE</b>	Polyethylene		

### LIQUID END AND WETTED MATERIALS OF CONSTRUCTION

Liquid End Code	Pump Head & Fittings	Diaphragm	Valve Balls	Valve Seat	Valve Seals	Gasket	Tubing
PC	GFRPP	—	CE	FKM	FKM	—	—
PE	GFRPP	—	CE	EPDM	EPDM	—	—
VC	PVC	—	CE	EPDM	EPDM	—	—
VF	PVC	PTFE	PTFE	EPDM	EPDM	PTFE	PE
FC	PVDF	Bonded to EPDM	CE	PCTFE	PTFE	—	—
TC	PVDF	—	CE	FKM	FKM	—	—
SH	SS	—	HC	HC	PTFE	—	1/4" NPTF

# 7900 WALCHEM PROCESS CONTROLLERS

IRRIGATION

## WALCHEM

### Valve

ITEM	DESCRIPTION
79000305	8011C WALCHEM TRI/PURPOSE VLV
79000306	8011CP WALCHEM TRI/PURPOSE VLV

### Pulse Control

ITEM	DESCRIPTION
79000330	W261PH WALCHEM PULSE CONTROL

### Boiler Control



The WBL series controls conductivity blowdown/chemical feed for one boiler. UL/CSA/CE certified.

ITEM	DESCRIPTION
79000400	WBL3001N5 WALCHEM BOILER CNTRL
79000402	WBL3004N5 WALCHEM BOILER CNTRL
79000403	WBL300145 WALCHEM BOILER CNTRL



### Electrodeless Conductivity Control

The WEC Series Controller is a dual input/output unit designed to measure solution conductivity via an encapsulated, non-contacting (toroidal) sensor to control chemical feed pumps and alarms, and to increase system productivity. May be applied in a number of very harsh chemical applications, including oily cleaner baths, chromates, rinse tanks, fume scrubbers and other concentrated chemicals up to 1000mS/cm. Choice of simple ON/OFF control scheme or time proportional control. UL/CSA/CE certified.

ITEM	DESCRIPTION
79000460	WEC31014A WALCHEM CNDTVY CNTRL
79000461	WEC31012D WALCHEM CNDTVY CNTRL
79000462	WEC31014N WALCHEM CNDTVY CNTRL
79000463	WEC31012B WALCHEM CNDTVY CNTRL

### Cooling Tower Controls



A single tower, feed/bleed, conductivity controller with a programmable dual biocide output option. Easy to use menu format for programming. UL/CSA/CE certified.

- Water meter inputs with flow totalizer
- Optional 4-20 mA output(s)
- Conductivity-based biocide prebleeds
- Lockout timer after biocide additions
- Flow switch manifold assembly (optional)

ITEM	DESCRIPTION
79000500	WCT3001N1 WALCHEM TOWER CNTRL
79000505	WCT3004N1 WALCHEM TOWER CNTRL
79000506	WCT3004N2 WALCHEM TOWER CNTRL
79000510	WCT3001N2 WALCHEM TOWER CNTRL
79000511	WCT3001N6 WALCHEM TOWER CNTRL
79000515	WCT300141 WALCHEM TOWER CNTRL
79000516	WCT3005N1 WALCHEM TOWER CNTRL
79000517	WCT3104N2 WALCHEM TOWER CNTRL
79000518	WCT310441 WALCHEM TOWER CNTRL
79000519	WCT3104N1 WALCHEM TOWER CNTRL

### Motor Contactor

ITEM	DESCRIPTION
79000520	WFM1010G1 WALCHEM MTR CONTACTR
79000525	WFM150 WALCHEM MTR CONTACTOR

### Copper Plating Controller



Optoelectronic on-line analyzer to measure actual concentration of copper in solution. May be switched from electroless

copper mode to microetch mode via a menu choice, eliminating the need for a second controller. UL/CSA/CE certified.

- Four control relays
- Calibration reminder

ITEM	DESCRIPTION
79000550	WCU3101N1 WALCHEM COPPER CNTRL
79000551	WCU3105N1 WALCHEM COPPER CNTRL

### Immerse Sensor

ITEM	DESCRIPTION
79000558	190787 WALCHEM WCU IMMER SNSR

### Dual/Inp Control

ITEM	DESCRIPTION
79000566	WDP3101N2 WALCHEM DUAL/INP CTL
79000567	WDP310122 WALCHEM DUAL/INP CTL
79000577	WDP340222 WALCHEM DUAL/INP CTL
79000578	WDP3401N7 WALCHEM DUAL/INP CTL

### Tower Control

ITEM	DESCRIPTION
79000581	WDT3001N1 WALCHEM TOWER CNTRL
79000582	WDT3001N2 WALCHEM TOWER CNTRL
79000588	WDT3101N6 WALCHEM TOWER CNTRL
79000589	WDT3101N8 WALCHEM TOWER CNTRL
79000590	WDT3101N7 WALCHEM TOWER CNTRL
79000591	WDT3104N8 WALCHEM TOWER CNTRL
79000592	WDT310128 WALCHEM TOWER CNTRL
79000600	WCT3101N1 WALCHEM TOWER CNTRL
79000610	WCT3101N2 WALCHEM TOWER CNTRL
79000615	WCT310142 WALCHEM TOWER CNTRL

### On/Off Controls

ITEM	DESCRIPTION
79000700	WPH3101N1 WALCHEM ON/OFF CNTRL
79000701	WPH3101N2 WALCHEM ON/OFF CNTRL
79000705	WPH3101NN WALCHEM ON/OFF CNTRL
79000710	WPH3104N2 WALCHEM ON/OFF CNTRL
79000712	WPH3101N4 WALCHEM ON/OFF CNTRL
79000714	WPH3101N6 WALCHEM ON/OFF CNTRL
79000715	WPH3101N8 WALCHEM ON/OFF CNTRL
79000720	WPH310149 WALCHEM ON/OFF CNTRL

### Proportional Controls

ITEM	DESCRIPTION
79000750	WPH3201N1 WALCHEM PROPOR CNTRL
79000751	WPH3201N9 WALCHEM PROPOR CNTRL
79000752	WPH3201NN WALCHEM PROPOR CNTRL

# WALCHEM SPECIALTY CONTROLLERS 7900

**WALCHEM**

## pH/ORP Transmitter w/Monitor



For basic pH/ORP control applications, or if a transmitter is all that is required.

- High and low alarm contacts
- Switch selectable pH or ORP operation
- Isolated 4-20 mA option
- Easy to set up - NEMA 4X wall mount or NEMA 12 panel mount

ITEM	DESCRIPTION
79000800	W130PH1N WALCHEM W/M MONITOR
79000805	W130PH14 WALCHEM W/M MONITOR
79000806	W130PH44 WALCHEM W/M MONITOR
79000900	W230PH1N WALCHEM P/M MONITOR
79000905	W230PH14 WALCHEM P/M MONITOR

## Preamplifiers



What do you do when your favorite pH/ORP electrode isn't available with a built-in preamplifier, but you need to send the signal

a few hundred feet? Hook up to this external preamp and you can go 1000 feet if necessary! Compatible with all of Walchem's controllers (but not the W-130/230 series monitors L).

- NEMA 4X, epoxy coated, die-cast aluminum wall mount enclosure
- Boost signal for reliable transmission up to 1,000 ft via 22 awg wire
- No temperature simulation resistor required when used with Walchem controllers

### pH/ORP Preamplifier Specifications:

Power  
± 5 VDC  
5 mA maximum Connections  
BNC for pH/ORP  
Screw terminals  
Input Impedance  
1 x 10<sup>13</sup> ohms Overall Dimensions  
4.87" (L) x 3.12" (W) x 2.25" (H)

### Enclosure

Grey epoxy coated  
Aluminum NEMA 4 X Mounting Dimensions  
4.43" (L) x 2.06" (H)

ITEM	DESCRIPTION
79001300	190783 PREAMPLIFIER ASSY PH
79001305	190829 PREAMPLIFIER F/250-260

## Nickel Plating Controller



Optoelectronic on-line analyzer to measure actual concentration of nickel in solution. UL/CSA/CE certified.

- Self diagnostics
- Optional pH input

ITEM	DESCRIPTION
79001580	WNI311141 WALCHEM NKL CONTRL
79001582	WNI31114N WALCHEM NKL CONTRL

## Electroless Nickel Sample System



Our sample system makes the installation of your nickel controller a breeze! Simply hook up the sample lines (supplied) and cooling water piping, attach the sensors and you're on your way to continuous control of

both the nickel and pH. We sample continuously, not periodically, so the control is as tight as can be! See below for details.

- Convenient wall mount package for all components required for nickel and pH control
- Standard process connections
- Includes 20 feet of sample tubing
- Sample pump preset for 500 ml/minute flow rate for optimum cooling
- Compact and neat

ITEM	DESCRIPTION
79001590	190921 SMPL SYS W/ NKL/PH SNSR
79001592	190784 WALCHEM FLO SNSR WNI

## Bellows Metering Pumps



The reciprocating polypropylene bellows offers dependable positive displacement with 1% repeatability through a 10:1 adjustment ratio. Available with either EPDM or FKM (Viton) elastomers, pump capacities range to 2100 ml/min.

The self-priming and corrosion resistant features help provide reliable continuous duty throughout a variety of chemical dosing applications. Proven performers, these Bellows pumps are extensively used in the photographic, plating and electronics industries. Additional features include:

- "Off-the-shelf" availability
- Simplex and duplex configurations
- Thermoplastic motor housing
- Stainless steel frame
- Easy output adjustment

Any bellows pumps will help you move fluid. Ours are designed to help you move ahead of the competition. The KBA/KBR series bellows pumps have a compact, durable design which offers several important advantages over larger, conventional bellows pumps. They are ideal for use in photo-processing equipment and other products which require intermittent chemical replenishment in the small flow range.

- Compact size: The KBA/KBR Series consist of three basic models: Simplex, Duplex and Triplex. Their compact design saves space, allowing manufacturers to reduce the overall size, weight and cost of their finished products. Small dimensions also permit them to fit into extremely tight areas.
- Quiet, Reliable Performance: A high-efficiency motor drives an adjustable cam which operated the bellows. This simple mechanism provides virtually silent, accurate operation with no maintenance required.
- Wider selection: KBA/KBR series bellows pumps can be easily specified according to required capacity. Models are available with outputs ranging from 35 ml/min to 800 ml/min.
- Field Proven: Since their introduction, KBA/KBR series bellows pumps have proven their superiority in both OEM and retrofit applications. They are in service worldwide throughout the photo-processing and chemical feed industries.

ITEM	DESCRIPTION
79015005	CP1-244 IWAKI BELLOWS MTR PUMP

IRRIGATION

INDUSTRIAL

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# 7900 WALCHEM SENSORS & ACCESSORIES

IRRIGATION

**WALCHEM**

## WEL Series Electrodes

WEL Series electrodes are cost-effective differential pH and ORP electrodes for industrial applications. Modular in design, pH and ORP cartridges can be easily connected or replaced in minutes without tools. Universal mounting style, can be mounted in-line or submersed.

### Sensors

ITEM	DESCRIPTION
79000620	190774 ELECTRODE, CONDUCTIVITY
79000625	190880 ELECTRODE SUBMR CONDTV
79000630	190768 ELECTRODE BOIL/CONDSTE
79000695	51369 PH 4.00 BUFFER PINT
79000696	51370 PH 7 BUFFER PINT
79000697	51371 PH 10 BUFFER PINT

### Shielded Cable

ITEM	DESCRIPTION
79000688	102535-40FT CABLE 3PR SHIELDED
79000689	102535-70FT CABLE 3PR SHIELDED

### Calibration Kit

ITEM	DESCRIPTION
79000798	51373 ORP CALIBRATION KIT

## Misc.

ITEM	DESCRIPTION
79000980	APC360 ANALOG TO PULSE CONVERT
79001000	51147 ELECTRODE PH FLAT L/CBL
79001010	51151 MTG GLAND FLAT CPVC
79001040	51158 ELECTRODE PH SUBM L/CBL
79001045	51159 ELECTRODE ORP FLAT L/CBL
79001050	51160 CABLE 10FT TH CAP CPVC
79001055	51160 CABLE 20FT TH CAP CPVC
79001085	51168 CABLE 20FT ATC TH CAP
79001120	51198 INSERT/ASSY CABLE 20FT
79001255	51526 ELECTRODE PH SUB/FLOUR/R
79001265	101152 ELECTRODE PH INDUSTRIAL
79001275	101154 CABLE 5FT BNC
79001280	101156 CABLE 10FT BNC
79001300	190783 PREAMPLIFIER ASSY PH
79001305	190829 PREAMPLIFIER F/250-260
79001360	E90023 AUTO AIR VLV EH/EZ PUMP
79001500	WELPHFNN WALCHEM PH FLT ELECTR
79001501	WELPHF11 WALCHEM PH ELECT/PREA
79001502	WELPHH41 WALCHEM PH FLT/ELECTR
79001503	WELPHHNN WALCHEM PH FLT/HF ELE
79001515	WELMVFNN WALCHEM ORP/FLT ELETR

ITEM	DESCRIPTION
79001520	102581 HOUSING/PREAMP ATC 10FT
79001525	102606 HOUSING/PREAMP 20FT CBL
79001530	102582 HOUSING ATC 20FT COAX
79001535	102607 HOUSING 20FT COAX CBL
79001540	102730 ELECTLS SENSOR WO/ADPT
79001575	190863 US INLINE MOUNTING KIT
79001705	SPX050 1/2 SEAMTRIC L/FLO MTER
79001710	SPX075 3/4 SEAMTRIC L/FLO MTER
79001715	PD10W07 SEAMTRIC W/M PULSE DIV
79001855	E90241 3/8 FOOT VALVE EHB-FC
79001856	E90013 3/8VC WALCHEM FOOT VLV
79001857	E90016 1/2 FOOT VALVE EHE-VC
79001865	E90001 3/8VC WALCHEM INJ VALVE
79001866	E90001 3/8PC WALCHEM INJ VALVE
79001867	E90007 1/2VC WALCHEM INJ VALVE
79001904	EH0620 1/2 PP NUT EHE LQ END
79001973	EH0719 1/2 PVC ADAP EHE LQ END
79001974	EH0720 1/2 SS CLMP RING EHE LE
79101370	99997 ORP FLT/SUR GOLD ELECTRD