

Metering Pumps



W A L C H E M



EW Series

The EW Series is the flagship of the E-Class with capacities up to 6.7 GPH (25.4 l/h) and a maximum pressure of 150 PSI (10 bar). Compact, powerful and packed with a variety of innovative design features the EW can enhance any feed application.

IP65 Construction

The rugged Polyphenylene Oxide (PPO) enclosure is equipped with a durable clear cover to protect the membrane switches and stroke control of the pump, which are mounted opposite the liquid end. The display utilizes a high temperature LCD that provides extra protection from sunlight in outdoor applications. A variety of liquid end combinations are available to ensure a perfect match for your specific application.



PVC

GFRPP

PVDF

316SS

Control Features

All EW series pumps come equipped with pulse, stop & pre-stop inputs in addition to stop & pulse output control. The EW-Y module also features:

Feed Accuracy - Powered by the E-Class 360 Stroke-Per-Minute technology, the EW has an incredible adjustment range of 1800:1 ensuring precise feed control for any application.

Analog Input Control - Fixed or scalable 4-20mA input control.

Pulse Input Control - Pulse input with multiply and divide features (1-9999). 12VDC output power supply for Hall Effect water meters.

Quick-Prime - Hold 2 keys down and pump runs at 100% of speed to prime quickly without adjusting application settings.

Keypad Lock-Out - Keypad functions can be locked out providing feed security and integrity from unwanted adjustments.



Feed Verification - The EW is equipped with three pre-programmed modes for accepting the Posiflow Feed Verification Sensor. The Posiflow provides a pulse feedback to the pump to verify prime and proper feed. Depending on the mode, the user can program the pump to stop, continue operating and/or send an alarm based on the Posiflow input.



Easy Draw-Down Calibration - In the calibration mode the user only needs to start and stop the pump, enter the draw-down volume and the pump calibrates volume-per-stroke.

Flow Rate Display - After calibration, the EW will display the flow rate. As long as stroke length is constant the pump will accurately display the volume of fluid being pumped. In cases where the pump is being controlled externally with a pulse, the pump will display and count down remaining flow based on the pulse input. Coupled with the Posiflow Feed Verification, the EW ensures proper feed for your application.

2-Year Warranty
 "Bumper-to-Bumper" On All
 E-Class Pumps
 - Including Waxed Parts

For more information and the latest specifications, visit us on the web at www.walchem.com



EK Series



The EK Series pumps are the world's first IP67 electronic metering pumps. This means that the EK is the only pump in the industry guaranteed to operate submerged 3 feet under water for up to 30 minutes! Needless to say, the EK Series pumps are

ideal for wet or high humidity environments such as irrigation, agriculture, car wash or paper mill applications. Capacity ratings are up to 6.7 GPH (25.4 l/h) with a maximum pressure of 150 PSI (10 bar).

IP67 Waterproof Construction

By integrating the pump body into a one-piece design, sealing is easier and more effective. Both the drive and the controller are completely insulated from moisture or gas. A watertight clear cover protects the display, controls and stroke length adjustment. All circuit boards and electronic components have been completely encapsulated to prevent failure due to moisture or gas. The display utilizes a high temperature LCD that provides extra protection from long-term exposure to sunlight in outdoor applications. Construction of the EK Series pumps makes them perfect for indoor and outdoor applications where the pumps are frequently exposed to wash down.

Control Features

High speed and a 20% minimum stroke length allow the EK Series to achieve an 1800:1 turndown ratio. The digital display and pushbutton speed control make setting the EK pump easy and precise. The EK pumps come equipped with pulse input (1:1) control and also feature an external stop input that can be set to stop the pump from a normally open or normally closed contact. To maintain the IP67 rating a proprietary connector is utilized that makes connection of the inputs simple, yet retains a watertight seal.



EZ Series

The EZ Series electronic metering pumps with microprocessor control offer precise chemical injection at a low cost. EZ pumps have outputs to 6.3 GPH and pressure capabilities to 150 PSI. The compact size and simple control make it ideal for OEM applications, water treatment, car wash and other industrial applications.

Value

Effective, reliable performance is achieved through sophisticated engineering. The EZ Series features an advanced microprocessor control with a turndown ratio of 360:1, making the EZ an exceptional value. The EZ is simple to operate with three pushbutton keys. The 360:1 turndown ratio provides unmatched versatility and results in high-resolution chemical feed and elimination of slug-feed effects.

Compact Modular Design

The liquid end, drive and electronics are modular, enabling economical repair or replacement of parts. The control module can easily be mounted in a remote location.

Innovative Timer Control

The EZ-Timer module integrates Walchem's EZB pump technology with a versatile programmable timer. Timed feed control can be programmed in daily or weekly cycles. The weekly schedules can be programmed in either 1 or 2-week cycles with a daily on-time. The daily timer can be set for multiple daily on-times. The EZ-Timer pump is a simple and effective way to automate additions in small systems.





EHE Series

The workhorse of the E-Class - no other electronic metering pump can match the power and performance of Walchem's EHE Series. EHE Series pumps have outputs up to 20 gallons per hour and pressure capabilities from 30 to 150 PSI. Combining the EHE performance and a turn-down ratio of 1800:1 yields one of the most versatile pumps on the market today. Superior mechanical design and quality of manufacturing merge to create a pump greater than the sum of its parts.

The EHE Series is ideal for chemical feed applications in a wide range of fields, including water treatment, chemical process, municipal and industrial wastewater.

Powerful

The EHE35 size pump is the most powerful electronic metering pump currently available. A pump's maximum pressure rating times its maximum output at that pressure gives a relative measure of the pump's hydraulic output power, a "power index." The EHE 35 with an output of 8.5gph at 105 psi yields a power index of 892.5. No other electronic metering pump even comes close.

Control

Microprocessor-based circuitry provides the operator adjustment of pump speed and external input settings via 4-button keypad. The EHE comes with digital and analog external mode control. The external digital input mode features pulse multiply and divide circuitry which is often used in flow proportional systems, such as with a flowmeter contactor. The external analog input mode is a programmable 4-20mA input which provides scalable speed adjustment based on any analog signal.



LK Series

In a class by itself - the LK is a motor-driven, mechanically actuated diaphragm metering pump with a maximum capacity of 114 GPH (432 l/h) and a maximum pressure of 225 PSI (15 bar). This expanded flow range makes the LK a perfect complement to the E-Class Metering Pump Line.

The LK Series is ideal for chemical feed applications in a wide range of fields, including water treatment, chemical process, agriculture, mining and paper.

Stroke Adjustment

Accurate and reliable stroke setting is accomplished with a micrometer dial of the spring back stroke adjustment mechanism. This lockable mechanism is adjustable from 10 to 100%.

Drive

The heart of the LK is the dual-cam drive system with a built-in worm gear type speed reducer. The aluminum bronze worm gear and the tapered roller bearing provide efficient transmission of motor power to the pump. This compact and reliable design consists of a rigid mechanism that provides maximum wear resistance in continuous operation over long periods of time.

Motors

All of the standard models employ totally enclosed fan-cooled motors which are vertically mounted to save space. A variety of motor options are available, including explosion-proof and DC variable speed motors for external control by a 4-20 mA input signal.

Advanced Metering Pump Technology

Walchem and Iwaki joined forces to design the most innovative and comprehensive metering pump product line in the world. With over 100 years of combined pump experience, in an array of different markets, the Iwaki-Walchem partnership leverages the strengths of both companies to exceed even the toughest customer expectations. Committed to new product development, our products are innovative and revolutionary. A perfect example is the EK pump - the first waterproof IP67 metering pump available.



E-Class Featuring four great pump series, EZ, EW, EK and EHE, E-Class pumps are powered by advanced microprocessor-based electronics and superior mechanical design. With capacities up to 20 GPH and a maximum pressure rating of 215 PSI, the E-Class has a pump that will fit any water treatment, municipal and industrial wastewater, agriculture, water conditioning, car wash or other chemical feed application. And, the entire E-Class pump line is backed with a comprehensive 2-year warranty that covers the entire pump, including the liquid end and diaphragm.



High Speed Performance E-Class pumps operate at 360 strokes-per-minute. Most competitive products operate at 180 SPM or less, resulting in slug feeding, accelerated diaphragm wear and poor feed control.

Dual Bearing Support All E-Class pumps features dual bearing support. The armature and shaft are supported with a bearing on each end, which ensures proper axial movement, enabling the E-Class to operate at 360 SPM while extending the life of the diaphragm.

Superior Check Valve Performance Dual Check Valve Assemblies in both suction and discharge fittings feature precision ball guides and tapered seats. Precise machining and molding of parts limit valve ball travel, ensuring that balls fully seat and seal with every stroke. This superior check valve design and performance guarantees fast priming.

High Compression Ratio The compression ratio of a metering pump is important because it affects the pump's ability to prime and vent. The compression ratio is improved when you reduce the dead volume of the pump head during operation. All E-Class pumps feature a very high compression ratio that ensures proper feed especially with off-gassing products. (e.g. Sodium Hypochlorite)



Pump Series	EZ SERIES		EW SERIES		EK SERIES	EHE SERIES	LK SERIES
	Digital	Timer	F Module	Y Module	R Module	E Module	Note 1
Control Module	Digital	Timer	F Module	Y Module	R Module	E Module	Note 1
Max Flow (GPH)	6.3		6.7		6.7	20	114
Max Pressure (PSI)	150		150 (215)		150 (215)	150	225
Strokes per Minute	360		360		360	360	58 / 116
Turndown Ratio	360:1		1800:1		1800:1	1800:1	Note 1
Stroke Length Adjustment	Fixed		20 - 100%		20 - 100%	20 - 100%	10 - 100%
IP Rating	IP 65		IP 65		IP 67 Waterproof	IP 65	IP 65
Multi-Function Valve Option	B/C11, 16, 21		B/C11, 16, 21		B/C11, 16, 21		
Degassing Valve Option	B11/16 & C16/21		B11/16 & C16/21		B11/16 & C16/21		
PosiFlow Option	✓		✓		✓	✓	
Pulse Input			✓	✓	✓	✓	
Pulse Multiply & Divide				✓		✓	
4-20 mA Input				✓		✓	Note 1
PosiFlow Input				✓			
Stop Input			✓	✓	✓	✓	
Pre-Stop Input			✓	✓			
Pulse Output			✓	✓			
Stop Output			✓	✓			
Timer Option		EZB					

Note 1: Standard turndown ratio of the LK is 10:1. With the addition of the DC motor option, the turndown ratio increases to 100:1 and the control capability expands to include a 4-20 mA input control signal.



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