

# EH SERIES

## ELECTRONIC METERING PUMPS



### The ***MOST*** Powerful Electronic Metering Pump

No other electronic metering pump can match the power and performance of Iwaki 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 turndown 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 better than the sum of its parts.



#### Prime Valve Design

The EHE primes in seconds after turning the pump on. Tightly guided check valves ensure a tight seal after each pulse, preventing loss of prime.

#### High Resolution Metering

Up to 360 strokes per minute provides smooth, uniform, precise chemical injection.

#### Engineered Longevity

Unique, double support of the solenoid armature extends the life of the bearing creating a smoother, quieter and more precise shot every stroke.

#### Dual Control Option

Manual or automatic mode features speed adjustment in 1 stroke/minute increments from 1 to 360. Turn down ratio is 1800:1.

**W A L C H E M**

Member of the Walchem Group

**EH2 2-Year Warranty**  
"Bumper-to-Bumper" On All EH Pumps  
- Including Worn Parts



# THE FINEST ENGINEERED METERING PUMP IN THE WORLD



## 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 pumps' hydraulic output power, a "power index." The EHE 35 with an output of 8.5 gph at 105 psi yields a power index of 892.5.

No other metering pump even comes close!

## EFFICIENT

The EHE Series does its work extremely well. Hydraulic output is maximized by its economic use of electricity via excellent heat rejection, valves that positively and consistently seat, unique front-and-back support of the armature.

## DURABLE

Superior magnetic, electronic, thermal and hydraulic designs have been achieved in the EHE metering pump. The result is a pump that will perform longer at maximum duty than any other comparable pump.

## TWO YEAR WARRANTY

Your pump will be repaired or replaced for up to 2 years, should it fail, providing the pump is applied according to factory recommendations.



## Microprocessor-Based Control Circuitry

Microprocessor-based circuitry  
Allows operator adjustment of pump speed and external input settings via 4-button keypad.

External digital input mode,  
pulse multiply

Often used in flow proportional systems, such as with a flowmeter contactor. 1 input pulse can produce 1 to 999 pump strokes.

External digital input mode,  
pulse divide

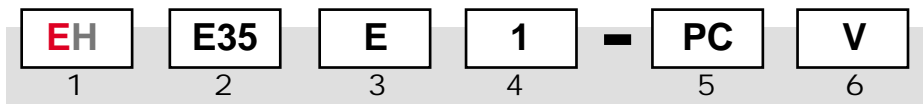
Pump can be set to divide (accumulate) pulses by a factor of 1 to 999.

External analog input mode

Programmable 4-20mA input allows for user defined speed control band; user sets minimum and maximum pump speeds.



# Ordering Information



1

## Pump Series

**EHE** Microprocessor control for all EHE models. Features manual speed control from 1 to 360 spm in 1 spm increments. External control from pulse signal with internal multiply and divide or from analog 4-20 mA signal.

2

## Capacity / Pressure Rating

Size	Output Capacity		Output per Stroke		Maximum Pressure		Connection Size (in.) Tubing O.D.	Power Index GPH x PSI		
	GPH min.	GPH max.	ml/min min.	ml/min max.	ml min.	ml max.			PSI	MPa
E30	0.0031	5.5	0.189	340	0.18	0.94	150	1.0	1/2	825.0
E35	0.0047	8.5	0.289	520	0.289	1.44	105	0.7	1/2	892.5
E45	0.0067	12.0	0.417	750	0.417	2.08	60	0.4	1/2	720.0
E55	0.0111	20.0	0.694	1250	0.694	3.47	30	0.2	1/2	600.0

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## Control Module

**E**

For use on all EHE models, features external pulse capability ( Pulse divide, pulse multiply, analog )

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## Voltage

1 - 115 VAC, 50 / 60 Hz

2 - 230 VAC, 50 / 60 Hz

5

## Liquid End

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	FKM	FKM		
VE	PVC		CE	EPDM	EPDM		
VF	PVC	PTFE	PTFE	EPDM	EPDM	PTFE	PE
VM*	M-PVC	BONDED TO EPDM	CE	FKM	FKM		
FC	PVDF		CE	PCTFE	PTFE		

\* VM liquid end available on E55 only

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## Back Pressure/Anti-Syphon Valve and Piping options

**Feature** Standard 1/2" tube connection. No accessory valve.

**V**

Standard 1/2" tube connection with Back Pressure/Anti-Syphon Valve \*

**T**

3/4" NPT (male) pipe thread connection

**P**

3/4" NPT (male) connection with Back Pressure/Anti-Syphon Valve \*

\* Not available for FC

### Materials of Construction

<b>CE</b>	Alumina ceramic
<b>EPDM</b>	Ethylene propylene diene monomer
<b>FKM</b>	Fluoroelastomer
<b>GFRPP</b>	Glass fiber reinforced polypropylene
<b>M-PVC</b>	Machined polyvinylchloride
<b>PCTFE</b>	<b>Polychlorotrifluoroethylene</b>
<b>PE</b>	Polyethylene
<b>PTFE</b>	Polytetrafluoroethylene
<b>PVC</b>	Polyvinylchloride (translucent)

NOTE: Tube or piping connection material of construction will be the same as the liquid end.

All pumps include one foot valve, one injection valve, 20 feet of polyethylene tubing, and one ceramic weight with the exception of options P and T.

## **EH** ELECTRONIC METERING PUMPS

### Other Specifications

#### Electrical (50/60 Hz, single phase)

115 VAC ± 10% 1.8 Amp max 48 watt avg  
 230 VAC ± 10% 0.8 Amp max 48 watt avg

#### Operating Conditions

Ambient temperature 32°F to 122°F (0°C to 50°C)  
 Relative humidity 30 to 90%, non-condensing

#### Shipping Weight (approximate)

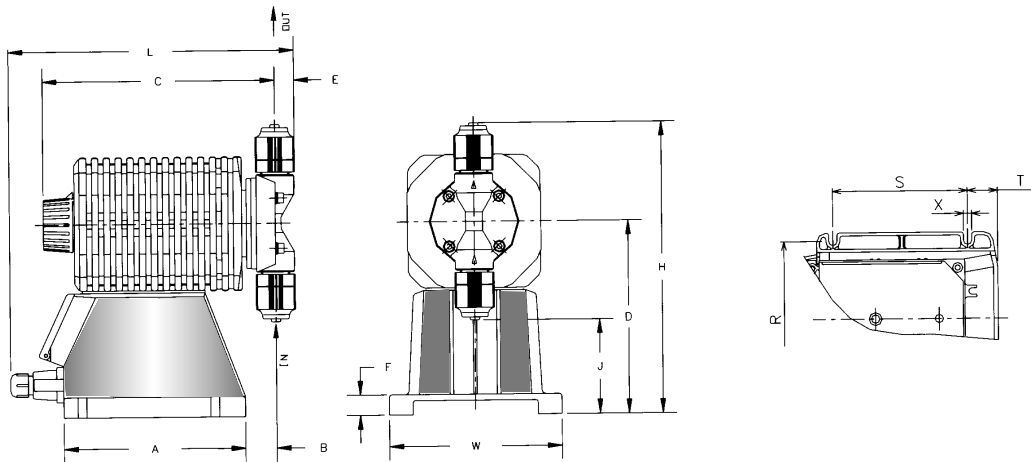
22 lbs (10 kg)

#### Safety Performance

The EHE Series metering pumps have been UL tested to meet UL and CSA standards.



### Dimensions



#### Overall Dimensions (inches / mm)

A	B	C	D	E	F	H	J	L	W
6.06	1.42	8.13	6.42	0.91	0.67	10.45	2.38	10.17	5.75
(154)	(36)	(206.5)	(163)	(23)	(17)	(265.5)	(60.5)	(258)	(146)

#### Mounting Dimensions (inches / mm)

R	S	T	X
5.20	4.50	1.00	0.28
(132)	(114)	(25.5)	(7)

**2 YEAR LIMITED WARRANTY**

Our warranty covers the metering pump electronics (control unit and drive unit) and the entire liquid end, including diaphragm. We will repair or replace any properly applied pump if it fails up to 2 years after delivery.

