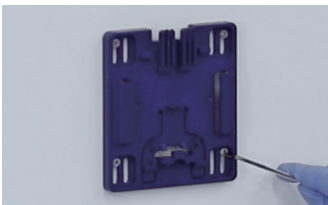


EWP-R SERIES SPECIFICATIONS

Engineered for both reliability and versatility, the **EWP-R** offers programmable analog and digital pulse input control in a fully featured control unit.

With 1800:1 turndown ratio and high-speed 360 strokes-per-minute operation, the EWP-R ensures consistent high-resolution performance. The backlit LCD and a large multicolor LED provide clear indication of display and operational status. Advanced control, high turndown, robust priming capability and durable construction make it the optimal choice for any cost-effective, high-precision chemical injection application.

Flowrates up to 6.7 GPH (25 l/h) and pressure capability to 300 psi (20 bar) enable the EWP-R to maximize value in most chemical delivery applications.



Flexible Installation

Quick-access mounting base enables the EWP-R to be easily wall mounted or quickly removed from an installation without the need for tools.

Rugged Housing

The EWP Series pumps are sealed and rated to an IP66 protection class (water and dust-proof) even without the chemical splash guard.



WALCHEM

IWAKI America Inc.



ORDERING INFORMATION

EWP	-	038B	VC	07	N	-	US	R
Pump Series		Capacity / Pressure	Liquid End	Connect Size	Options		Power Cord / Rating	Control Unit

PUMP SERIES

EWP = Electronic metering pump series with digital display and multi-parameter control (adjustable to 360 strokes per minute)

CAPACITY/PRESSURE RATING

See chart on this page

LIQUID END

See chart on this page

CONNECTION SIZE

07 = 1/4" ID x 3/8" OD

08 = 3/8" ID x 1/2" OD

XX = Other sizes available on request

OPTIONS

N = None

M = Multifunction Valve is supplied in place of the manual air vent valve. Available on all size pumps and liquid ends except FC, SH or combined with the Auto Degassing Valve option.

VOLTAGE/POWER CORD

US = 115VAC, 50/60 Hz

UH = 230VAC, 50/60 Hz

BR = Brazil 220VAC, 50/60Hz

CONTROL MODULE UNIT

R = DIGITAL speed control (1-360strokes/minute) with programmable ANALOG, Digital Pulse, and Batch EXTERNAL control.

ACCESSORIES

All EWP-R pumps also include a manual air vent valve with the exception of FC liquid ends. All pumps include one foot valve, one injection valve, 20 feet of polyethylene tubing and one ceramic weight (with the exception of SH models). EWP-R pumps include the display splash guard and a wall/base mounting plate.

CAPACITY/PRESSURE RATING

Capacity / Size	Max Output Capacity		Max output per stroke	Max Pressure		Connection Size Default Tubing O.D.
	GPH	mL/min	mL	PSI	MPa	
038 B	0.6	38	0.11	150	1.0	07 (3/8")
080 C	1.3	80	.22	150	1.0	07 (3/8")
130 D	2.0	130	0.36	105	0.7	07 (3/8")
270 E	4.3	270	0.75	50	0.35	08 (1/2")
420 F ²	6.7	420	1.17	30	0.2	08 (1/2")

1. Auto Degassing Valve reduces output by approximately 20%.

2. FC/TC/SH in 420 F size – Output is derated to 410mL/min.

LIQUID END MATERIALS

Liquid End	Pump Heading & Fittings	Diaphragm	Valve Balls	Valve Seat	Valve Seals	Gasket	Tubing
FC	PVDF	PTFE (bonded to EPDM)	CE	PCTFE	PTFE	PTFE	CE
PC	GFRPP			FKM	FKM		
PE	GFRPP			EPDM	EPDM		
VC	PVC			FKM	FKM		
VE	PVC			EPDM	EPDM		
SH	316SS			31635	31635		
TC	PVDF			FKM	FKM		

CE Alumina ceramic

FKM Fluoroelastomer

PE Polyethylene

PCTFE Polychlorotrifluoroethylene

PVDF Polyvinylidene fluoride

EPDM Ethylene propylene diene monomer

GFRPP Glass fiber reinforced polypropylene

PTFE Polytetrafluoroethylene

PVC Polyvinylchloride (translucent)

HC Hastelloy C276

SAFETY CERTIFICATIONS



The EWP metering pumps are tested by Intertek to UL and CSA standards.

Controller type		EWP-R	
Operation mode	MAN	0.1–100% stroke rate ^{Note1} (1–360 spm)	
	EXT	ANA.P (Analogue preset)	4–20, 0–20, 2 0–4, 20–0 mA (Proportional operation with stroke rate)
		ANA.V (Analogue variable)	2 points setting (proportional operation with flow rate or stroke rate) Setting range: 0.0–20.0 mA, 0–Max. flow rate or 0.0–100% stroke rate
		PLS.V (Pulse variable)	2 points setting (proportional operation with flow rate or stroke rate) Setting range: 0.0–500 Hz, 0–Max. flow rate or 0.0–100% stroke rate
		DIV (Dividing)	/1–9999
		MULTI (Multiply)	×1–9999
		BATCH (Batch operation)	0.1 mL–99.9999 L (0.0001–26.4199 Gal)
	INT.B (Interval batch operation)	0–9 Days, 0–23 Hours, 0–59 Minutes Flow rate: 0.1 mL–99.9999 L (0.0001–26.4199 Gal)	
Operational panel	LCD	14seg 5digits, 7seg 4digits, backlight LCD	
	Status LED	White	Lights when the pump is in the wait state or menu mode.
		Green	Blinks synchronously with stroke when the pump is running.
		Orange	Blinks synchronously with stroke when the Pre-STOP signal is input.
		Purple	Lights when the STOP signal is input.
		Red	Lights when the Interlock signal is input.
Control functions	STOP/Pre-Stop	Pump keeps running during Pre-STOP signal input. Pump stops when STOP signal input. ^{Note2}	
	PRIME	Max. spm operation while holding down the START/STOP key.	
	Keypad lock	PIN number entry disables the function.	
	Interlock	Pump stops at contact input.	
	AUX	Pump runs at the preset AUX speed.	
	Buffer memory	MULTI/DIV: Excess pulse signal can be stored up to 65535 shots. ON/OFF is selectable. BATCH: Accumulates the flow volume up to 99.9999 L. ON/OFF is selectable.	
	Current value indication	An input current is displayed during operation in the ANA.V/ANA.P mode.	
Other features	Calibration	Automatically calculates the output capacity per shot and displays the flow rate.	
	Maximum flow rate setting	Stroke rate: 0.1–100.0%, 1–360 spm	
	AUX flow rate setting	Stroke rate: 0.1–100.0%, 1–360 spm	
	Anti-Chattering	The pulse recognition time for pump not to be adversely affected by chattering or noise is selectable.	
	Logic	“Normally Open” or “Normally Closed” is selectable for input and output signal.	
	Units	mL/m, L/h and GPH each can be enabled or disabled.	
	Data Logging	Total flow volume, Total shots, OUT1 ON times, Total power-on-time, operation time, Software version.	
Input	Pulse ^{Note3}	Dry contact or open collector. ^{Note4}	
	Analogue	0–20 mADC (Input resistance 220 Ω)	
	STOP/Pre-stop (Level sensor)	Dry contact or open collector ^{Note4} , 2-steps contact	
	AUX	Dry contact or open collector ^{Note4}	
	Interlock	Dry contact or open collector ^{Note4}	
Output	OUT 1	Open collector (Photo coupler) 24 VDC, 30 mA Enable or disable the alarms of spm (Synchronous with stroke), STATE (Outputs while running), STOP, Pre-STOP, I.LOCK (Interlock), B.COMP (Batch complete)	
	Auxiliary DC power	12 VDC, 30 mA	
Power Voltage	100–240 VAC 50/60 Hz ^{Note5}		

Note 1: When using Digital control (Mult/DIV), the pump's maximum stroke rate is limited to the stroke rate setting in the MAN mode (even if the Mult/DIV calculates the pump faster).

Note 2: Stop/Pre-Stop input can be selected NO/NC .

Note 3: Pulse input default frequency setting is 100Hz (Duty cycle: 50%). Max frequency limit varies based on pulse input on-time (anti-chattering). 500Hz range can only be input when selected in PLS.V mode.

Note 4: The maximum applied voltage to the contact is 5 VDC at 2.3 mA. The minimum application load of the relay or switch should be 1 mA or below.

Note 5: The allowable power voltage range is 90–264 VAC.



ELECTRICAL SPECIFICATIONS

EWP-R

50/60 Hz, single phase
115 VAC ±10%
230 VAC ±10%

EWP-R (B)

13 Watt avg.
0.8 Amp max.
0.4 Amp max

EWP-R (C-F)

23 Watt avg.
1.1 Amp max.
0.5 Amp max.

SHIPPING WEIGHT

Approx. 7 lbs. (3.2 kg)
(Plastic liquid ends)

Approx. 9 lbs. (4.1 kg)
(Stainless Steel liquid ends)

OPERATING CONDITIONS

Ambient Temperature: 32 to 122°F (0 to 50°C)

Liquid Temperature: PVC liquid ends: 32 to 104°F (0 to 40°C)
PP, PVDF, SS liquid ends: 32 to 140°F (0 to 60°C)
Below 32°F (0°C), pump is limited to 70% of maximum pressure.
Liquid cannot freeze.

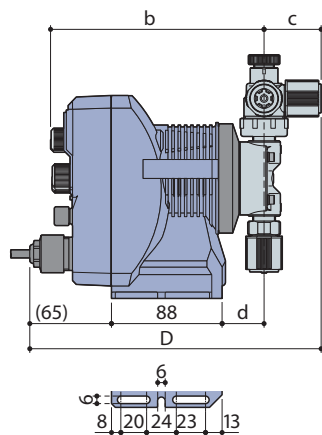
Relative Humidity: 30% to 90% non-condensing

Pumps should always be shielded from direct exposure to the elements.

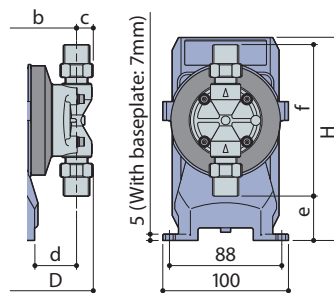
EWP-R

Dimensions in mm

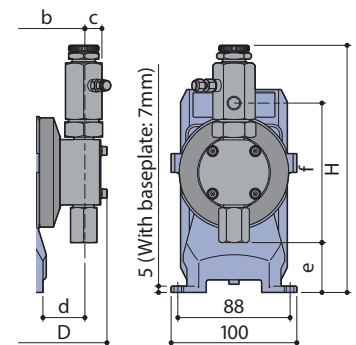
(VC/VS/VE/PC/PS/PE/TC)



(FC)



(SH)



• Illustration shows 038B, 080C, 130D
• The EWP-SH type is heavy, so a base plate is used.
With baseplate: 7mm

(VC/VS/VE/PC/PS/PE/TC)

Model	(H)	(D)	(a)	(b)	(c)	(d)	(e)	(f)
EWP-038B								
EWP-080C	194	233		170	47	33	20	139
EWP-130D			—					
EWP-270E	207	235		172	47	35	4	168
EWP-420F	206			171			5	166

(FC)

Model	(H)	(D)	(a)	(b)	(c)	(d)	(e)	(f)
EWP-038B								
EWP-080C	162	199		170	13	33	35	121
EWP-130D			—					
EWP-270E				172	16	35	19	154
EWP-410F	173	204		171				

(SH)

Model	(H)	(D)	(a)	(b)	(c)	(d)	(e)	(f)
EWP-038B								
EWP-080C	197	204		170	15	32	40	111
EWP-130D			—					
EWP-270E	209	205		170	15	34	30	133
EWP-410F	211	207					27	138

Notes:

- The Multifunction valve increases the overall length (D) by 2.5mm, the discharge height (f) by 66.5mm, and the overall height (H) by 31.8mm.
- The Auto-Degassing valve increases the overall height (H) and the discharge height (f) by 45.9mm