



Electromagnetic metering pumps

**EH-E**



**Extensive Flow Capacity Range**  
**Powerful Electromagnetic Metering Pumps**

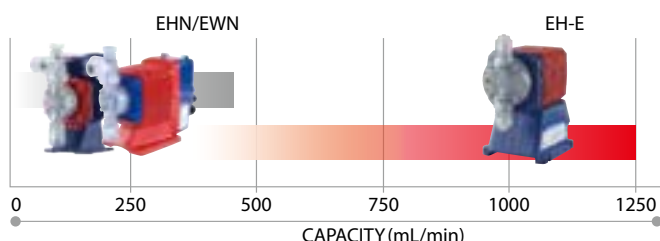
The Heart of Industry

# Powerful, Efficient and Durable Large Capacity Metering Pumps up to 1250ml/min



## Large Capacity

EH-E series is available in models with a max. discharge capacity of 340 to 1250mL/min. Combined with the IWAKI EHN and EWN series, it can further widen a range of flow capacity.



## High Resolution

The discharge volume is adjusted in terms of stroke length and rate. The stroke length can be adjusted between 20% and 100%, and the stroke rate can be set between 1 and 360 spm, which enables the fine adjustment of discharge capacity.



## Pump Head Variation

Materials available for the pump head are PVC, GFRPP (Polypropylene), PVDF (Fluororesin), and SUS (Stainless steel).



## Water / Dust - proof

The sealed drive unit and control unit assure IP65.  
\* The pump is not completely water -proof. Protect the pump with a cover when installing it outdoors.



PVC



GFRPP



PVDF



SUS316



## Functions of Controller

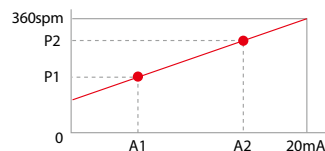
The controller features a control mode based on analog input (0 - 20mADC) and digital input (Pulse) as standard. The controlled operation can be performed in the control mode that best suits the purpose.

### Manual mode

Stroke rate can be increased or decreased by 1-spm anywhere within the range 1 to 360 spm, and is able to set either during operation or stop.

### Proportional control mode

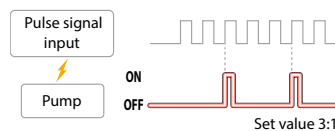
The stroke rate can be proportionally controlled based on external 0-20mADC signals.



### Divisor mode

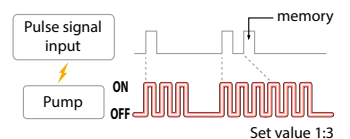
The pump runs for a preset divisor at every incoming external pulse signals. The pump provides one shot per (n) times pulse inputs.

Set the number (n) between 1 and 999 by means of the keys. If next pulse is input before a set number of shots have been completed, the pump is capable of storing that pulse signal (max. 64535 shots). It is selectable to store the pulse input or not.



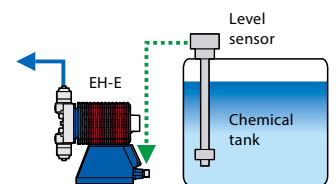
### Multiplier mode

The pump runs for a preset multiplier per incoming external pulse signals. The pump provides (n) times shots per pulse input. Set the number (n) between 1 and 999 by means of the keys. If next pulse is input before a set number of shots have been completed, the pump is capable of storing that pulse signal (max. 64535 shots). It is selectable to store the pulse input or not.



### STOP function

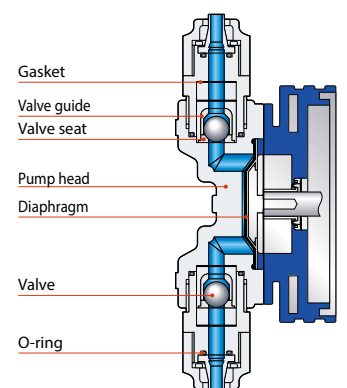
The pump can be stopped by an external contact signal. The pump operates when stop signal is released. This feature enables the pump ON/OFF control.



## Wet-end Part Materials

Material symbol	VC	V6	VM(E56)	PC	SH	FC
Pump head	PVC	PVC	PVC (machined)	GFRPP	SUS316	PVDF
Valve	Alumina ceramic	SUS316	Alumina ceramic	Alumina ceramic	Hastelloy C276	Alumina ceramic
Valve seat	FKM	EPDM	FKM	FKM	SUS316	PCTFE
Valve guide	PVC	PVC	PVC	GFRPP	SUS316	PVDF
Gasket	PTFE					
O-ring	FKM	EPDM	FKM	FKM	-	-
Diaphragm	PTFE+EPDM (EPDM of diaphragm is not wet-end.)					

Note : Illustration shows EH-E46. EH-E31 & E36 employ 2 stage valve.



## Pump Identification

**EH - E 56 VC - 20E P E 5 - □□**

- |   |  |   |   |
|---|--|---|---|
| <b>1</b> Series name  | <b>4</b> Wet-end part material code<br><b>VC, V6, VM, PC, SH, FC</b>   | <b>6</b> Power cable terminal code<br><b>P:</b> With plug<br><b>Blank:</b> Crimp-style terminal | <b>8</b> Diameter of connecting tube (in mm)<br><b>4:</b> Ø8 × Ø13 <b>9:</b> Rc 1/4<br><b>5:</b> Ø9 × Ø12 <b>11:</b> Ø10 × Ø16<br><b>6:</b> Ø10 × Ø12 <b>14:</b> Rc 3/8 |
| <b>2</b> Drive unit code<br><b>E:</b> 48W   | <b>5</b> Power-supply voltage code<br><b>100:</b> 100/110/115VAC single phase<br><b>20E:</b> 220/230/240VAC single phase | <b>7</b> Control unit type<br><b>E:</b> E type controller                                       | <b>9</b> Special arrangement code   |
| <b>3</b> Diaphragm effective diameter<br><b>31:</b> 30mm <b>46:</b> 45mm<br><b>36:</b> 35mm <b>56:</b> 55mm |  |   |   |

## Specifications of Pump

Model	E31	E36	E46	E56
Max.capacity	mL/min	340	520	750
Max.capacity	L/hour	20.4	31.2	45
Max. discharge pressure	MPa	1.0	0.7 (SH : 0.6)	0.4
Power supply	(for both 50/60Hz) 100, 110, 115, 220, 230, 240VAC single phase			
Stroke rate	1 - 360 spm			
Stroke length	20 - 100% (E46/E56 FC, SH : 50 - 100%)			
Ambient temperature	0 - 40°C			
Range of liquid temperature	Type VC, V6, VM 0 - 40°C Type PC, SH, FC 0 - 60°C			
Ambient humidity	30 - 85%RH			
Connection for types VC, V6, PC, VM	mm	Ø8 × Ø13, Ø9 × Ø12		Ø10 × Ø16, Ø9 × Ø12
Connection for type SH	mm	Rc 1/4	Rc 1/4	Rc 3/8
Connection for type FC	mm	Ø10 × Ø12		
Average power consumption	48W			
Average current	100/110/115VAC: 1.8A, 220/230/240VAC: 0.8A			

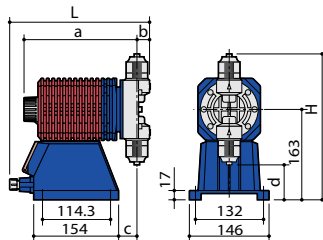
- The max. discharge capacity in the table above represents the performance measured with clean water under the max. discharge pressure. Actual discharge may increase if operation is conducted at a lower pressure.
- Set the discharge pressure at 0.12 MPa or higher to prevent over-feeding trouble. For E56, it should be 0.05 MPa or higher. If the pressure is to be lower than these levels, make sure to use a check valve or a back pressure valve, which is supplied as an optional item.

## Specifications of Controller

Display	4 digit, 14 segment, LCD		
Setting method	4 Operating Keys ▲, ▼, EXT, START/STOP		
Control function	Manual	1 - 360spm	
	External signal input	Proportional to input signal	Input signal : 0-20mA
		Count control (1 : n)	Dry contact, n=1-999
		Pulse control (n : 1)	Dry contact, n=1-999
	STOP input	Dry contact (Make OFF)	
Out put	Power source for sencer	12VDC 10mA or less	

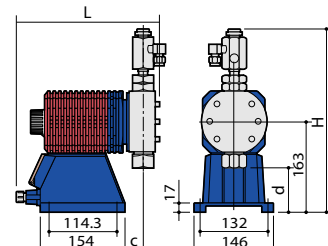
## Dimensions in mm

Type VC, V6, PC, VM, FC



Model	L	H	a	b	c	d
EH-E31/36	(243)	(246)	(198)	16.5	(28) (27)	(78) (79)
E46	(247)	(255)	(199)	19	(29)	(70)
E56	(259)	(266)	(209)	21.5	(39)	(59)
E56VM	(261)		(210)	23		

Type SH



Model	L	H	c	d
EH-E31	(249)	(300)	(27)	(97)
E36		(303)		(94)
E46	(254)	(328)	(38)	(92)
E56	(265)	(331)		(79)

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( ) Country codes

**Caution for safety use:** Before use of pump, read instruction manual carefully to use the product correctly. Actual pumps may differ from the photos. Specifications and dimensions are subject to change without prior notice. For further details please contact us.

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