



IWAKI  
ELECTROMAGNETIC  
METERING  
PUMPS

**EH-E**



# High-tech combination of pump technology and electronics technology

Electromagnetic Metering Pump EH Series features not only compact, but also can achieve a maximum flow rate of 1.25 L/min.

The EH-E pump's controller includes a microcomputer that enables a single pump to provide not only manual operations, but also automatically controlled operations based on various input signals (current and pulse signals).



## 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 0 and 360 spm, which enables the EH-E pump to provide a wide range of flow rates.

## Microcomputer built-in controller

The controller includes a microcomputer that enables a single pump to operate in four modes (manual / proportional control / pulse control / count control), switching between modes by means of the keys.

## Water- and dust-proof structure

The pump body, aluminium die-cast frame is molded by reinforced plastics (GFRPP), has a water- and dust-proof structure that is immune to liquids and atmosphere corrosion. The water-proof level is IP65.

## Chemical resistance features

Materials available for the pump head are PVC, GFRPP (Polypropylene), PVDF (Fluororesin), and SUS (Stainless steel). All other wetted-parts consist of corrosion-proof materials; Hastelloy C276, ceramic, fluoroelastomer, PTFE, etc.



Model for high flow and industrial process

### Functions of the controller

#### Manual mode

Stroke rate can be increased or decreased by 1-spm anywhere within the range 0 to 360 spm, and is able to set either during operation or stop.

#### Proportional control mode

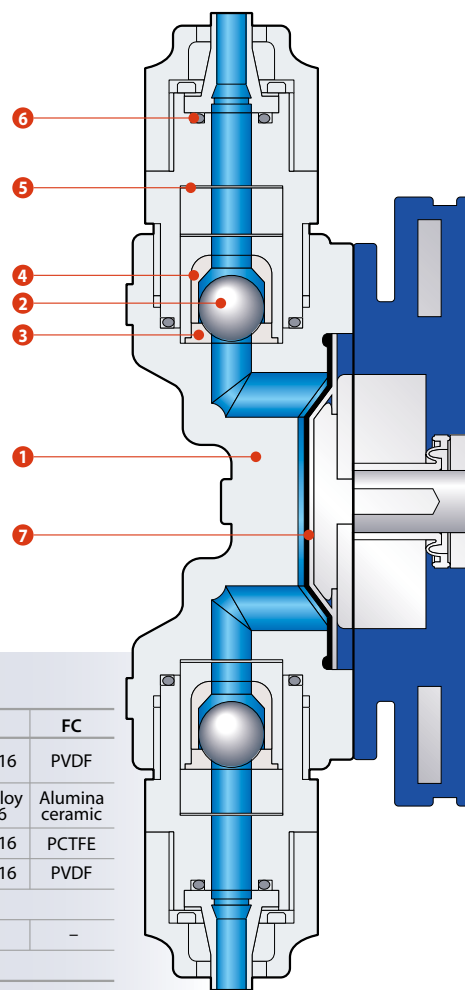
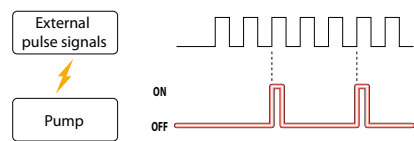
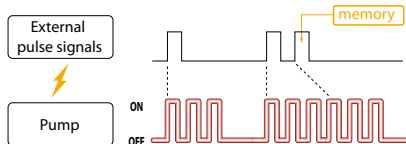
The stroke rate can be proportionally controlled based on external DC0-20mA signals. Select an input signal by means of the keys.

#### Pulse control mode

The EH-E pump performs division control operations in response to 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.

#### Count-control mode

The EH-E pump performs count-control operations in response to 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. 255 pulses). It is selectable to store the pulse input or not.

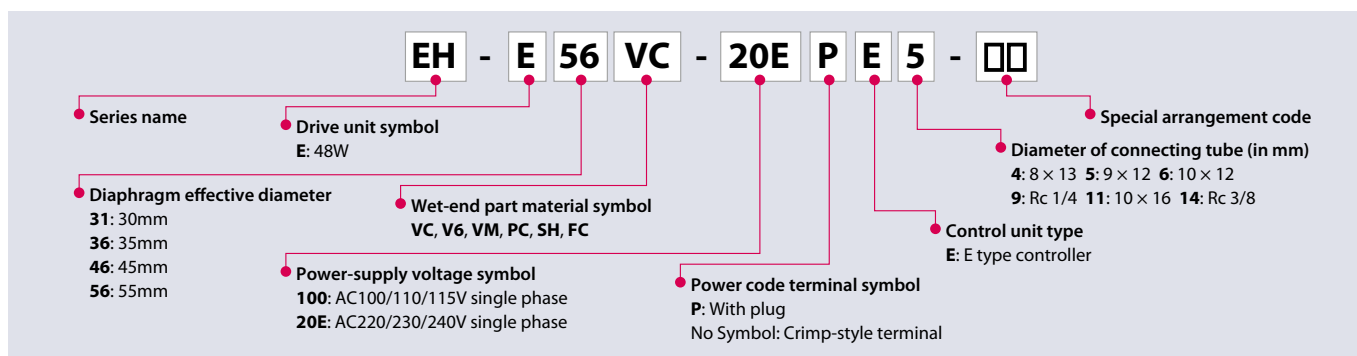


#### Wet-end part materials

Material symbol	VC	V6	VM(E56)	PC	SH	FC
1 Pump head	PVC	PVC	PVC (machined)	GFRPP	SUS316	PVDF
2 Valve	Alumina ceramic	SUS316	Alumina ceramic	Alumina ceramic	Hastelloy C276	Alumina ceramic
3 Valve seat	FKM	EPDM	FKM	FKM	SUS316	PCTFE
4 Valve guide	PVC	PVC	PVC	GFRPP	SUS316	PVDF
5 Gasket	PTFE					
6 O-ring	FKM	EPDM	FKM	FKM	-	-
7 Diaphragm	PTFE coated EPDM					

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

### Pump identification



## Specifications of pump

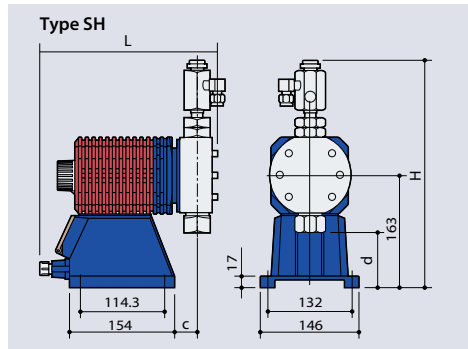
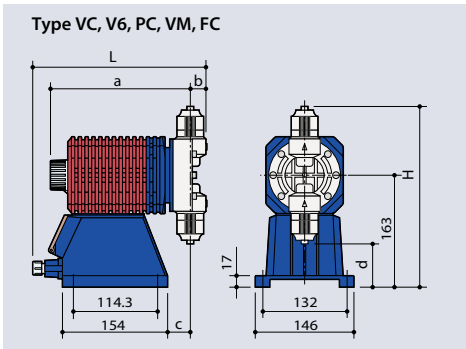
Model		E31	E36	E46	E56
Max.capacity	mL/min	340	520	750	1250
Max.capacity	L/hour	20.4	31.2	45	75
Max. discharge pressure	MPa	1.0	0.7 (SH : 0.6)	0.4	0.2
Power supply	(for both 50/60Hz)	AC100, 110, 115, 220, 230, 240V single phase			
Insulation type, etc.		E type insulation and built-in thermal protector, with a 1.5m or 2.0m power cable			
Stroke rate		0 - 360 spm			
Stroke length		20-100%			
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 X ø13, ø9 X ø12			ø10 X ø16, ø9 X ø12
Connection for type SH		Rc 1/4	Rc 1/4	Rc 3/8	Rc 3/8
Connection for type FC	mm	ø10 X ø12			
Average power consumption		48W			
Average current		AC100/110/115V: 1.8A, AC220/230/240V: 0.8A			

- The max. discharge value 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

<b>Display</b>	4 digit, 14 segment, LCD	
<b>Setting method</b>	4 Operating Keys ▲, ▼, EXT, START/STOP	
<b>Control function</b>	<b>Manual</b>	0 - 360spm
	<b>Proportional to input signal</b>	Input signal : DC4-20mA, 0-20mA, 20-4mA, 20-0mA
	<b>Count control (1: n)</b>	No voltage contact, n=1-999, No. of stroke : Fixed at 360 spm, Count memory : Max. 255 pulse input
	<b>Pulse control (n : 1)</b>	No voltage contact, n=1-999, No. of stroke : Fixed at 360 spm, Count memory
	<b>STOP input</b>	No voltage contact (Make OFF)

## Dimensions in mm



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

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

**IWAKI CO., LTD.** 6-6 Kanda-Sudacho 2-chome Chiyoda-ku Tokyo 101-8558 Japan  
TEL : (81)3 3254 2935 FAX : 3 3252 8892

( )Country codes

IWAKI has global network. Please find your distributor location at

[www.iwakupumps.jp](http://www.iwakupumps.jp)

European office : **IWAKI Europe GmbH**  
Germany : **IWAKI Europe GmbH**  
Holland : **IWAKI Europe GmbH** (Netherlands Branch)  
Italy : **IWAKI Europe GmbH** (Italy Branch)  
Spain : **IWAKI Europe GmbH** (Spain Branch)  
Belgium : **IWAKI Belgium N.V.**  
Denmark : **IWAKI Nordic A/S**  
Finland : **IWAKI Suomi Oy**  
France : **IWAKI France S.A.**  
Norway : **IWAKI Norge AS**  
Sweden : **IWAKI Sverige AB**  
U.K. : **IWAKI Pumps (UK) Ltd.**

TEL: (49)2154 9254 0  
TEL: (49)2154 9254 50  
TEL: (31)74 242001 1  
TEL: (39)0444 371 115  
TEL: (34)93 37 70 198  
TEL: (32)13 67 02 00  
TEL: (45)48 24 2345  
TEL: (358)9 2745810  
TEL: (33)1 69 63 33 70  
TEL: (47)23 38 49 00  
TEL: (46)8 511 72900  
TEL: (44)1743 231363

FAX: 2154 9254 48  
FAX: 2154 9254 55  
FAX: (49)2154 925448  
FAX: 0444 335350  
FAX: 93 47 40 991  
FAX: 13 67 20 30  
FAX: 48 24 2346  
FAX: 9 2742715  
FAX: 1 64 49 92 73  
FAX: 23 38 49 01  
FAX: 8 511 72922  
FAX: 1743 366507

U.S.A. : **IWAKI America Inc.**  
Argentina : **IWAKI America Inc.** (Argentina Branch)  
Singapore : **IWAKI Singapore Pte Ltd.**  
Indonesia : **IWAKI Singapore** (Indonesia Branch)  
Malaysia : **IWAKI M Sdn. Bhd.**  
Australia : **IWAKI Pumps Australia Pty Ltd.**  
Hong Kong : **IWAKI Pumps Co., Ltd.**  
China : **GFTZ IWAKI Engineering & Trading Co., Ltd.**  
          : **IWAKI Pumps (Shanghai) Co., Ltd.**  
Korea : **IWAKI Korea Co., Ltd.**  
Taiwan : **IWAKI Pumps Taiwan Co., Ltd.**  
Thailand : **IWAKI (Thailand) Co., Ltd.**  
Vietnam : **IWAKI Pumps Vietnam Co., Ltd.**

TEL: (1)508 429 1440  
TEL: (5)411 4745 4116  
TEL: (65)6316 2028  
TEL: (62)21 6906606  
TEL: (60)3 7803 8807  
TEL: (61)2 9899 2411  
TEL: (852)2607 1168  
TEL: (86)20 84350603  
TEL: (86)21 6272 7502  
TEL: (82)2 2630 4800  
TEL: (886)2 8227 6900  
TEL: (66)2 322 2471  
TEL: (84)613 933456

FAX: 508 429 1386  
FAX: 6316 3221  
FAX: 21 6906612  
FAX: 3 7803 4800  
FAX: 2 9899 2421  
FAX: 2607 1000  
FAX: 20 84359181  
FAX: 21 6272 6929  
FAX: 2 2630 4801  
FAX: 2 8227 6818  
FAX: 2 322 2477  
FAX: 613 933399

**Caution for safety use:**  
Before use of pump, read instruction manual carefully to use the product correctly.

**Legal attention related to export.**

Our products and/or parts of products fall in the category of goods contained in control list of international regime for export control. Please be reminded that export license could be required when products are exported due to export control regulations of countries.

Actual pumps may differ from the photos. Specifications and dimensions are subject to change without prior notice. For further details please contact us.

