IWAKI

Electromagnetic metering pumps

# EH-E

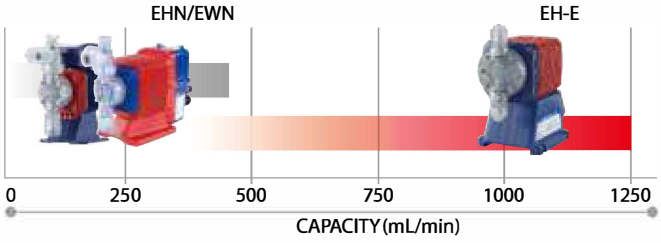
## Extensive flow capacity range
## powerful electromagnetic metering pumps

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.

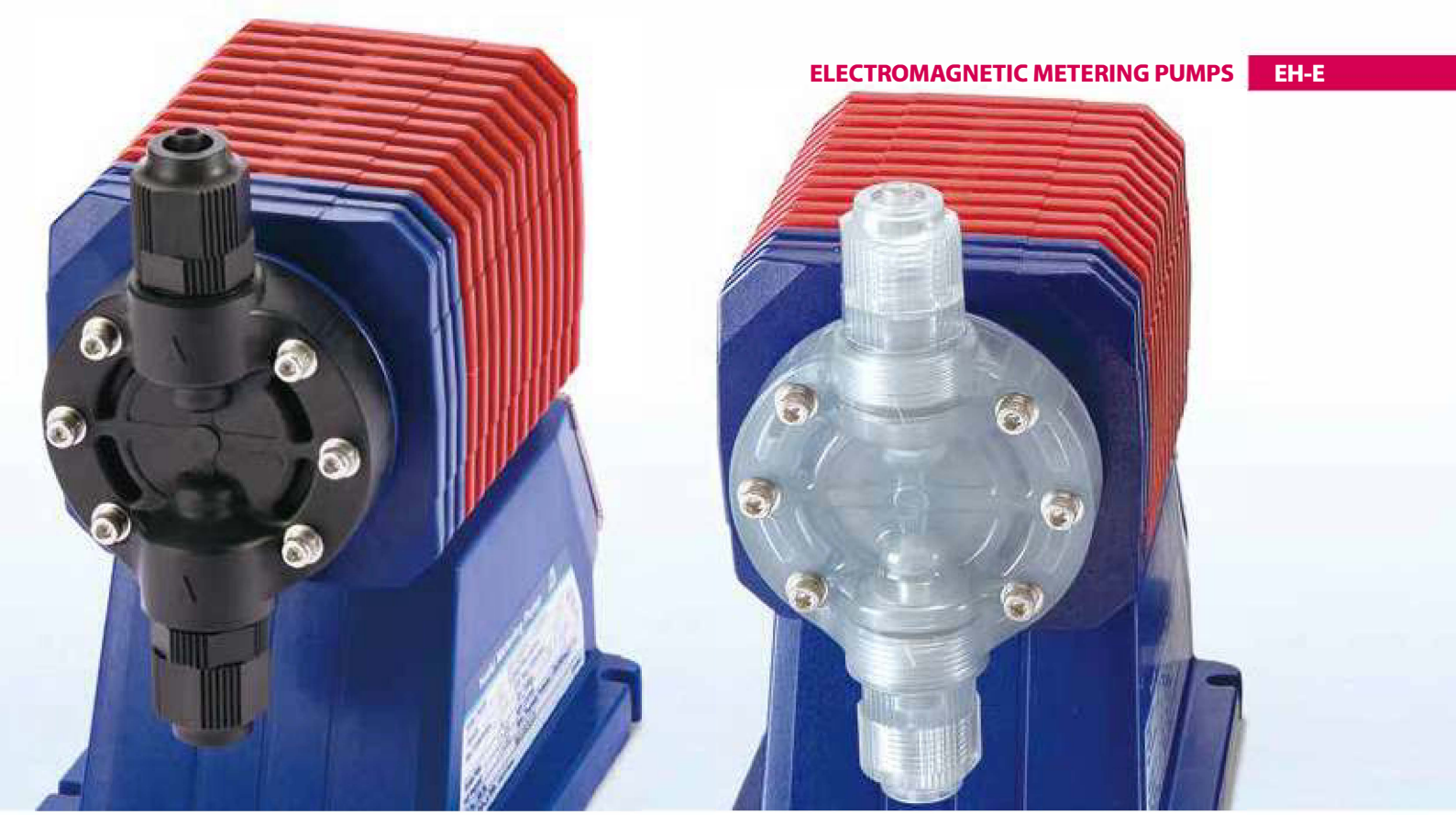
* The pump is not completely water -proof. Protect the pump with a cover when installing it outdoors.


PVC


GFRPP


PVDF


SUS316



## Functions of controller

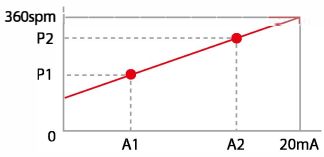
The controller features a control mode based on analog input (0 - 20mADC) and digital input (Pulse) as standard. The controlled operation can be performed in the control mode that best suits the purpose.

### 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.

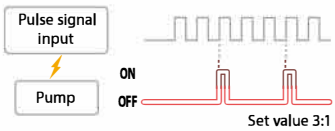
### Proportional control mode

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



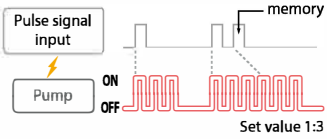

### Divisor mode

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.



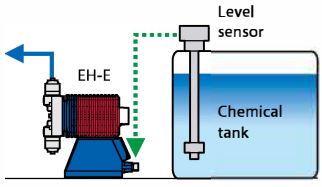

### Multiplier mode

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

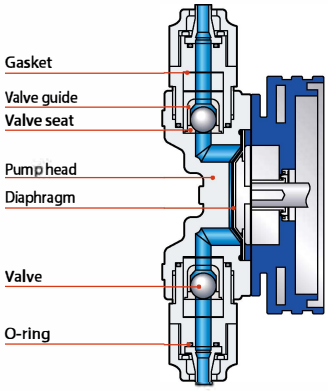
The pump can be stopped by an external contact signal.
The pump operates when stop signal is released. This feature enables the pump ON/OFF control.




## 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 | □□ |
|---|---|---|---|---|---|---|---|---|
| | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |

**1** Series name

**2** Drive unit code
**E**: 48W

**3** Diaphragm effective diameter
**31**: 30mm **46**: 45mm
**36**: 35mm **56**: 55mm

**4** Wet-end part material code
**VC**, **V6**, **VM**, **PC**, **SH**, **FC**

**5** Power-supply voltage code
**100**: 100/110/115VAC single phase
**20E**: 220/230/240VAC single phase

**6** Power cable terminal code
**P**: With plug
Blank: Crimp-style terminal

**7** Control unit type
**E**: E type controller

**8** Diameter of connecting tube (in mm)
**4**: Ø8 × Ø13 **9**: Rc 1/4
**5**: Ø9 × Ø12 **11**: Ø10 × Ø16
**6**: Ø10 × Ø12 **14**: Rc 3/8

**9** Special arrangement code

## 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) | 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 | | Rc 1/4 | Rc 1/4 | Rc 3/8 | 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 | | | |

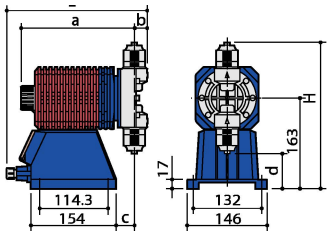
- The max. discharge capacity in the table above represents the performance measured with clean water under the max. discharge pressure. Actual discharge may increase if operation is conducted at a lower pressure.
- Set the discharge pressure at 0.12 MPa or higher to prevent over-feeding trouble. For 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 |

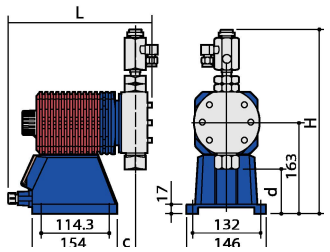
## Dimensions in mm

**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) | | (92) |
| E56 | (265) | (331) | (38) | (79) |

The Heart of Industry
IWAKI

www.iwaki.de
**IWAKI EUROPE GmbH** Siemensring 115, 47877 Willich
Tel .: +49 (0) 2154/9254-47 Fax : +49 (0) 2154/9254-48 E-Mail : sales@iwaki.de

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.

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.

The posting and copying from this catalogue without permission is not accepted firmly.