



Electromagnetic Metering Pumps

EH-E



Extensive Flow Capacity Range
Powerful Electromagnetic Metering Pumps

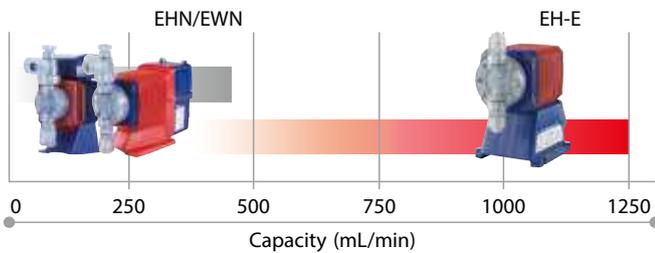
The Heart of Industry

Powerful, Efficient and Durable Large Capacity Metering Pumps Up to 1250 mL/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

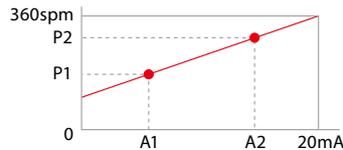
The controller features a control mode based on analog input (0 - 20mADC) and digital input (Pulse) as standard. The controlled operation can be performed in the control mode that best suits the purpose.

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.

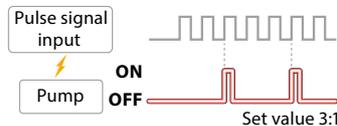
Proportional control mode

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



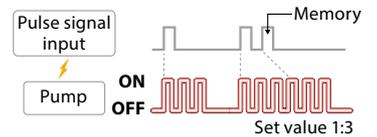
Divisor mode

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.



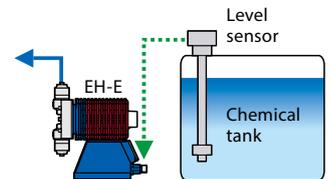
Multiplier mode

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

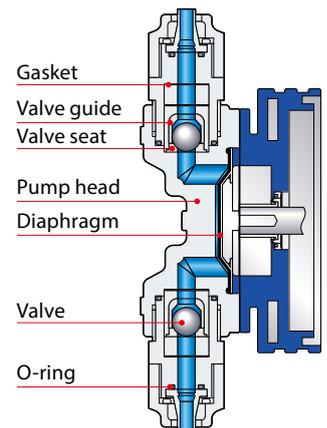
The pump can be stopped by an external contact signal. The pump operates when stop signal is released. This feature enables the pump ON/OFF control.



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 equivalent | 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 | - | <input type="checkbox"/> | <input type="checkbox"/> |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | | | |
| 1 Series name | 4 Wet-end part material code VC, V6, VM, PC, SH, FC | | | 6 Power cable terminal code P: With plug Blank: Crimp-style terminal | | | 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 | | | | | |
| 2 Drive unit code E: 48W | 5 Power-supply voltage code 100: 100/110/115VAC single phase 20E: 220/230/240VAC single phase | | | 7 Control unit type E: E type controller | | | 9 Special arrangement code | | | | | |
| 3 Diaphragm effective diameter 31: 30mm 46: 45mm 36: 35mm 56: 55mm | | | | | | | | | | | | |

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 | | | | |

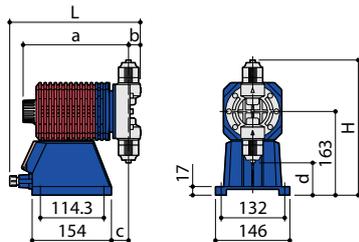
- The max. discharge capacity in the table above represents the performance measured with clean water under the max. discharge pressure. Actual discharge may increase if operation is conducted at a lower pressure.
- Set the discharge pressure at 0.12 MPa or higher to prevent over-feeding trouble. For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

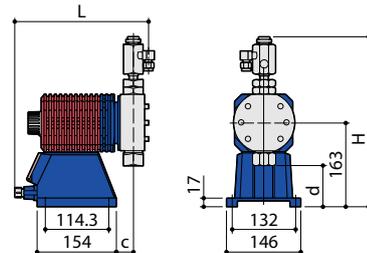
| | | | |
|------------------|--|------------------------------|-----------------------|
| Display | 4 digit, 14 segment, LCD | | |
| Setting method | 4 Operating Keys ▲, ▼, EXT, START/STOP | | |
| Control function | Manual | 1 - 360spm | |
| | External signal input | Proportional to input signal | Input 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

VC, V6, PC, VM, FC



SH



| 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 | | |

| Model | L | H | c | d |
|--------|-------|-------|------|------|
| EH-E31 | (249) | (300) | (27) | (97) |
| E36 | | (303) | | (94) |
| E46 | (254) | (328) | (38) | (92) |
| E56 | (265) | (331) | | (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 IWAKI has global net work. Please find your distributor location at www.iwakupumps.jp

| | | | | | |
|---|--|--|---|--|---|
| European Headquarter Germany The Netherlands (Netherlands Branch) Italy (Italy Branch) Spain (Spain Branch) Poland (East Europe Branch) Denmark Finland Norway Sweden Belgium France | IWAKI Europe GmbH TEL: (49)2154 9254 0 IWAKI Europe GmbH TEL: (49)2154 9254 50 IWAKI Europe GmbH TEL: (31)74 2420011 IWAKI Europe GmbH TEL: (39)0445 561219 IWAKI Europe GmbH TEL: (34)934 741 638 IWAKI Europe GmbH TEL: (48)12 347 0755 IWAKI Nordic A/S TEL: (45)48 242345 IWAKI Suomi Oy TEL: (358)10 201 0490 IWAKI Norge AS TEL: (47)23 38 49 00 IWAKI Sverige AB TEL: (46)8 511 72900 IWAKI Belgium N.V. TEL: (32)13 670200 IWAKI France S.A. TEL: (33)1 69 63 33 70 | TEL: (49)2154 9254 48 FAX: (49)2154 9254 55 TEL: (31)74 2420011 FAX: (49)2154 9254 48 TEL: (39)0445 569088 FAX: (39)0445 569088 TEL: (34)934 741 638 FAX: (34)934 741 638 TEL: (48)12 347 0900 FAX: (48)12 347 0900 TEL: (45)48 242345 FAX: (45)48 242345 TEL: (358)10 201 0490 FAX: (358)10 201 0490 TEL: (47)23 38 49 00 FAX: (47)23 38 49 00 TEL: (46)8 511 72900 FAX: (46)8 511 72900 TEL: (32)13 670200 FAX: (32)13 670200 TEL: (33)1 64 49 92 73 FAX: (33)1 64 49 92 73 | U.S.A. Brazil China (Shanghai) China (Hong Kong) China (Guangzhou) China (Shenzhen) Singapore Indonesia (Indonesia Office) Malaysia Korea Taiwan Thailand Australia | IWAKI America Inc. TEL: (1)508 429 1440 IWAKI Do Brasil Comercio De Bombas Hidraulicas LTDA. TEL: (55)19 3244 5900 IWAKI Pumps (Shanghai) Co., Ltd. TEL: (86)21 6272 7502 IWAKI Pumps Co., Ltd. TEL: (852)2607 1168 GFZ IWAKI Engineering & Trading Co., Ltd. TEL: (86)20 84350603 IWAKI Pumps (Shenzhen) Co., Ltd. TEL: (86)0755 8656 3696 IWAKI Singapore Pte Ltd. TEL: (65)6316 2028 IWAKI Singapore Pte Ltd. TEL: (62)21 6906606 IWAKI SDN. BHD. TEL: (60)3 7803 8807 IWAKI Korea Co.,Ltd. TEL: (82)2 6238 4800 IWAKI Pumps Taiwan Co., Ltd. TEL: (886)2 8227 6900 IWAKI (Thailand) Co.,Ltd. TEL: (66)2 322 2471 IWAKI Pumps Australia Pty Ltd. TEL: (61)2 9899 2411 | FAX: (1)508 429 1386 FAX: (55)19 3244 5900 FAX: (86)21 6272 6929 FAX: (852)2607 1000 FAX: (86)20 84359181 FAX: (86)0755 8656 3696 FAX: (65)6316 3221 FAX: (62) 21 6906612 FAX: (60)3 7803 4800 FAX: (82)2 6238 4801 FAX: (886)2 8227 6818 FAX: (886)2 8227 6818 FAX: (66)2 322 2477 FAX: (61)2 9899 2421 |
|---|--|--|---|--|---|

- ⚠ 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.