Electromagnetic metering pumps
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.
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.
Functions of the controller

**Manual mode**
Stroke rate can be increased or decreased by 1spm 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 has 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

<table>
<thead>
<tr>
<th>Material symbol</th>
<th>VC</th>
<th>VG</th>
<th>VM(OHA)</th>
<th>PC</th>
<th>SH</th>
<th>FC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Pump head</td>
<td>PVC</td>
<td>PVC</td>
<td>PVC (injected)</td>
<td>GR/P</td>
<td>SUS316</td>
<td>PVDF</td>
</tr>
<tr>
<td>2 Valve</td>
<td>Alumina ceramic</td>
<td>Alumina ceramic</td>
<td>Alumina ceramic</td>
<td>Hastelloy C276</td>
<td>Alumina ceramic</td>
<td></td>
</tr>
<tr>
<td>3 Valve seat</td>
<td>FKM</td>
<td>EPDM</td>
<td>FKM</td>
<td>FKM</td>
<td>SUS316</td>
<td>PTFE</td>
</tr>
<tr>
<td>4 Valve guide</td>
<td>PVC</td>
<td>PVC</td>
<td>PVC</td>
<td>GR/P</td>
<td>SUS316</td>
<td>PVDF</td>
</tr>
<tr>
<td>5 Gasket</td>
<td>PTFE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 O-ring</td>
<td>FKM</td>
<td>EPDM</td>
<td>FKM</td>
<td>FKM</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Diaphragm</td>
<td>PTFE coated EPDM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

### Pump identification

- **Series name**: EH - E 56 VC - 20E P E 5 - 00
- **Drive unit symbol**: E-48W
- **Diaphragm effective diameter**: 21: 30mm, 26: 35mm, 36: 45mm, 56: 55mm
- **Wet-end part material symbol**: VC, VG, VM, PC, SH, FC
- **Power-supply voltage symbol**: 100: AC100/110V/115V single phase, 20E: AC220/230/240V single phase
- **Power code terminal symbol**: P: With plug, No Symbol: Crimp-style terminal
- **Special arrangement code**: Diameter of connecting tube (in mm): 4: 8 x 13, 5: 9 x 12, 6: 10 x 12
- **Control unit type**: E Type controller
Specifications of pump

<table>
<thead>
<tr>
<th>Model</th>
<th>E31</th>
<th>E36</th>
<th>E46</th>
<th>E56</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. capacity (mL/min)</td>
<td>340</td>
<td>320</td>
<td>750</td>
<td>1250</td>
</tr>
<tr>
<td>Max. capacity (L/hour)</td>
<td>20.1</td>
<td>21.2</td>
<td>45</td>
<td>75</td>
</tr>
<tr>
<td>Max. discharge pressure (MPa)</td>
<td>1.0</td>
<td>1.0</td>
<td>0.4</td>
<td>0.2</td>
</tr>
</tbody>
</table>

- Power supply: AC100, 110, 115, 120, 208, 240V single phase
- Stroke rate: 0 - 360 rpm
- Stroke length: 20.1% of total
- Ambient temperature: -40°C
- Range of fluid temperature: Type VC, V6, VM -40°C, Type PC, SH, FC 0 - 60°C
- Ambient humidity: 30 - 85% RH
- Connection for types VC, V6, PC, VM: ø9 X ø13, ø9 X ø12
- Connection for type SH: Rc 1/4, Rc 3/8
- Connection for type FC: ø10 X ø12
- Average pressure consumption: 40W
- 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 overfeeding. 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 |

- Proportional to input signal: Input signal: DC4-20mA, 0-20mA, 0-4mA, 20mA
- Count control (T:n): No voltage contact, n=1-999, No. of stroke: Fixed at 360 rpm, Count memory: Max. 255 pulse input
- Pulse control (n:n): No voltage contact, n=1-999, No. of stroke: Fixed at 360 rpm, Count memory
- STOP input: No voltage contact (Make OFF)

Dimensions in mm

<table>
<thead>
<tr>
<th>Model</th>
<th>Type VC, V6, PC, VM, FC</th>
</tr>
</thead>
<tbody>
<tr>
<td>EH-E31/26</td>
<td>(243) (246) (188) 16.5 (10/12) (9/10)</td>
</tr>
<tr>
<td>EH-E46</td>
<td>(247) (256) (190) 19 (29) (20)</td>
</tr>
<tr>
<td>EH-E56</td>
<td>(259) (266) (200) 21.5 (30) (30)</td>
</tr>
<tr>
<td>EH-E56VM</td>
<td>(261) (266) (210) 23 (30) (30)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model</th>
<th>Type SH</th>
</tr>
</thead>
<tbody>
<tr>
<td>EH-E31</td>
<td>(280) (300) (27) (97)</td>
</tr>
<tr>
<td>EH-E36</td>
<td>(280) (300) (27) (94)</td>
</tr>
<tr>
<td>EH-E46</td>
<td>(354) (328) (27) (92)</td>
</tr>
<tr>
<td>EH-E56</td>
<td>(355) (311) (38) (70)</td>
</tr>
</tbody>
</table>

www.iwikipumps.jp

Seneya Ltd
Unit 9 Pond Close
Walkern Road
Stevenage
Herts SG1 3OP
Tel: 01438 759995
www.seneyas.co.uk

IWAKI CO., LTD.
6-6 Kanda Sodacho 2-chome Chiyoda-ku Tokyo 101-8558 Japan TEL: 81(0)3 3254 2035 FAX: 81 3254 8892

Caution: For safety use: Before use, read Instruction manual carefully to use this tool correctly.
Actual output may differ from the photo. Specifications and dimensions are subject to change without prior notice. For further details please contact us.

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