

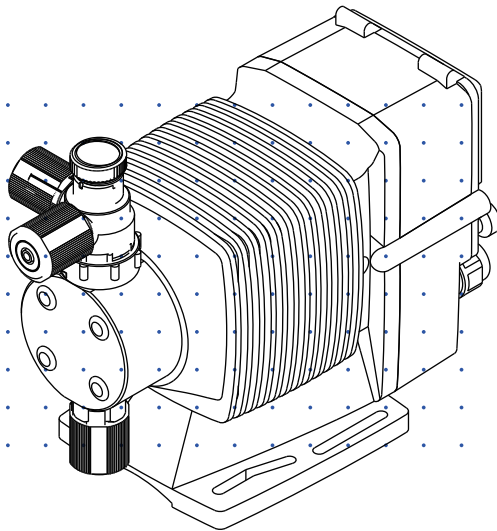
# Iwaki

## Electromagnetic Metering Pump

---

### EWN-R (Chlorine Dioxide type)

---



## Instruction manual

**Thank you for choosing our product.**



Please read through this instruction manual before use.

This manual is intended to supplement the EWN-R series standard manual of T683 and addresses new information for the release of the Chlorine Dioxide type.



Always keep it on hand for quick reference.

## Order confirmation

Open the package and check that the product conforms to your order. If any problem or inconsistency is found, immediately contact your distributor.

### a. Check if the delivery is correct.

Check the nameplate to see if the information such as model codes discharge capacity and discharge pressure are as ordered.

Iwaki Metering Pump	
MODEL	
PRESSURE	MPa
CAPACITY	L/H
VOLTAGE	V
CURRENT	A
FREQUENCY	Hz
MFG.No.	
Year :	
<b>IWAKI CO.,LTD.</b>  <small>MADE IN JAPAN</small>	
1P425395	IP65 

### b. Check if the delivery is damaged or deformed.

Check for transit damage and loose bolts.

#### **Export restrictions**

Technical information contained in this instruction manual might be treated as controlled technology in your countries, due to agreements in international regime for export control.

Please be reminded that export license/permission could be required when this manual is provided, due to export control regulations of your country.

# ***Contents***

<b>Order confirmation .....</b>	<b>2</b>
<b>Identification codes.....</b>	<b>4</b>
Pump/Drive/Control units.....	4
<b>Pipework .....</b>	<b>5</b>
Tube connection .....	5
<b>Wear part replacement.....</b>	<b>6</b>
Wear part list.....	6
<b>Exploded view .....</b>	<b>7</b>
Pump head .....	7
EWN-CH .....	7
<b>Specifications/Outer dimensions .....</b>	<b>8</b>
Specifications .....	8
Pump unit .....	8
European power cable .....	8
Pump colour .....	8
Outer dimensions.....	9
EWN-CH .....	9

## Identification codes

The model codes of the pump/drive units and the control unit represent the following information.

### ***Pump/Drive/Control units***

---

**EWN - B 11 FC  E R - CH**  
**a      b c    d    e    f g    h**

**a. Series name**

EWN: Multivoltage electromagnetic metering pump

**b. Drive unit (Average power consumption)**

B: 20W

C: 24W

**c. Diaphragm effective diameter**

11: 10mm

16: 15mm

21: 20mm

**d. Wet end materials**

Code	Pump head	Valve	O ring	Valve seat	Gasket	Diaphragm
FC	PVDF	CE	FFPM	PCTFE	PTFE	PTFE + FKM

**Material code**

PVDF : Polyvinylidene difluoride

FKM : Fluorine-contained rubber

PTFE : Polytetrafluoroethylene

CE : Alumina ceramics

PCTFE : Polymonochlorotrifluoroethylene

FFPM : Perfluoroelastomer

**e. Tube connection bore**

No code: I.D.4 × O.D.6

**f. Power cable**

E: European type

**g. Control unit function**

R: Standard

**h. Special configuration**

CH: Chlorine Dioxide type

## Pipework

Connect tubes to the pump and install a check valve.

### Before operation

- Cut the tube ends flat.

Tube end (Side view)



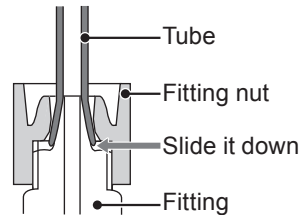
### Necessary tools

- Adjustable wrench or spanner

## Tube connection

- Pass a tube into the fitting nut and slide it down to the fitting as far as it will go. Then hand tighten the nut.
- Turn further the fitting nut 180 degrees clockwise with an adjustable wrench or spanner.

\*The plastic fitting nut may be broken if it is tightened too much.



## Wear part replacement

To run the pump for a long period, wear parts need to be replaced periodically. It is recommended that the following parts are always stocked for immediate replacement. Contact us or your nearest distributor for detail.

### ! Precautions

- Solution in the discharge line may be under pressure. Release the pressure from the discharge line before disconnecting plumbing or disassembly of the pump to avoid solution spray.
- Rinse wet ends thoroughly with tap water.
- Each time the pump head is dismantled, replace the diaphragm, O rings, valve gaskets and valve sets with new ones.

### Wear part list

	Parts	# of parts	Estimated life
Pump		2 sets	8000 hours
		1	

\*The high pressure types have a rear diaphragm sheet on the back side of the diaphragm.

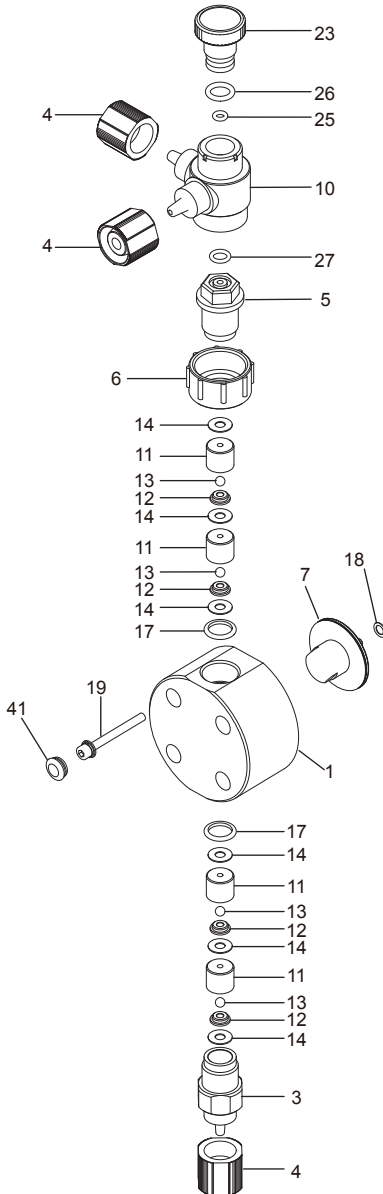
\*Wear part duration varies with the pressure, temperature and characteristics of liquid.

\*The estimated life is calculated based on the continuous operation with clean water at ambient temperature.

# Exploded view

## Pump head

### ■ EWN-CH



No.	Part names	# of parts
1	Pump head	1
3	Fitting	1
4	Fitting nut	3
5	Air vent body B	1
6	Lock nut	1
7	Diaphragm	1
10	Air vent body A	1
11	Valve guide	4
12	Valve seat	4
13	Valve	4
14	Valve gasket	6
17	Gasket	2
18	Diaphragm spacer	*
19	Hex. socket head bolt [PW-SW]	4
23	Adjusting screw	1
25	O ring	1
26	O ring	1
27	O ring	1
41	Cap	4

\*The number of diaphragm spacers varies with pump model.

## Specifications/Outer dimensions

### Specifications

Information in this section is subject to change without notice.

#### ■ Pump unit

Model code	Flow rate L/H (mℓ/min)	Discharge pressure MPa	Stroke length % (mm)	Stroke rate % (spm)	Power con- sumption W	Current value A	Weight kg
EWN-B11	2.3 (38)	1.0	50-100 (0.5-1.0)	0.1-100 (1-360)	20	0.8	2.8
EWN-B16	3.9 (65)	0.7					
EWN-B21	6.0 (100)	0.4					
EWN-C16	4.8 (80)	1.0	40-100 (0.5-1.25)		24	1.2	3.7
EWN-C21	7.8 (130)	0.7					

\*These specifications were collected at the time of our shipping inspection and based on pumping clean water at ambient temperature and rated voltage.

\*Flow rates were collected at the maximum discharge pressure, 100% stroke length and 100% stroke rate. A flow rate increases as a discharge pressure decreases.

\*Allowable room temperature: 0-40°C

\*Allowable liquid temperature: 0-60°C

\*Allowable power voltage deviation: ±10% of the rated range

#### ■ European power cable

Conduction section area	0.75 [mm <sup>2</sup> ] Triplex cable(L/N/PE)	Standard	H03VV-F
Length	2000 [mm]	Terminal treatment	European plug

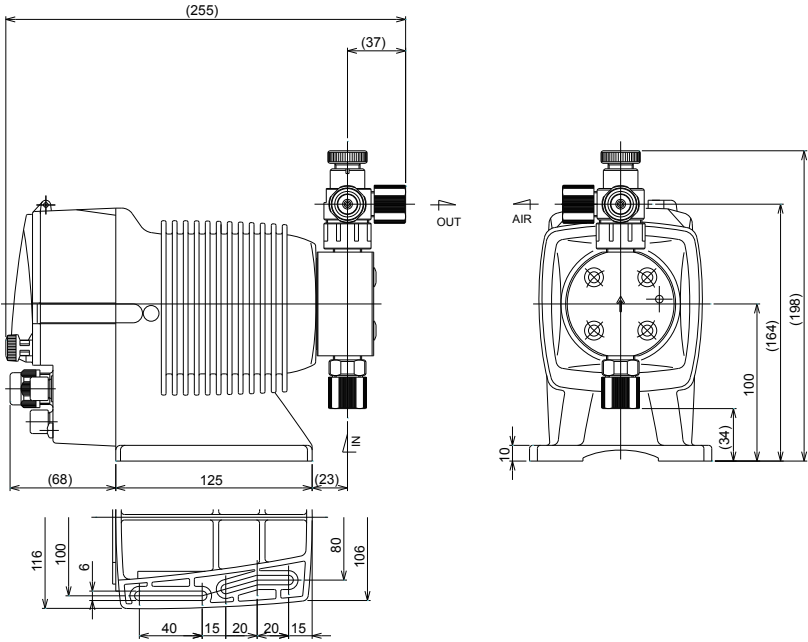
#### ■ Pump colour

Blue	Munsell colour system 7.5PB 3/8
Red	Munsell colour system 5R 3/10



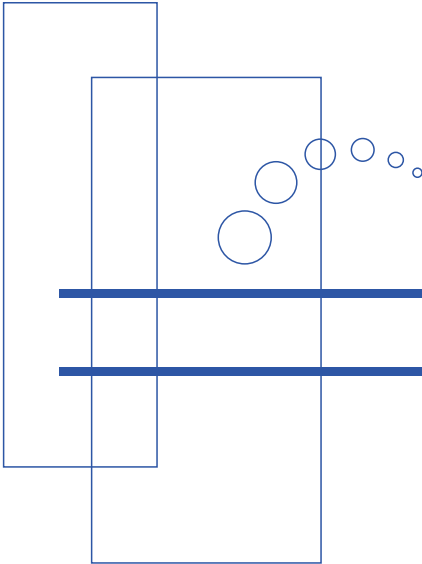
# Outer dimensions

## ■ EWN-CH









<http://www.iwakupumps.jp>

( )Country codes

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

Australia	IWAKI Pumps Australia Pty. Ltd.	TEL: (61)2 9899 2411	FAX: 2 9899 2421	Italy	IWAKI Italia S.R.L.	TEL: (39)0444 371115	FAX: 0444 335350
Austria	IWAKI EUROPE GmbH	TEL: (49)2154 92540	FAX: 2154 9254 48	Korea	IWAKI Korea Co.,Ltd.	TEL: (82)2 2630 4800	FAX: 2 2630 4801
Belgium	IWAKI Belgium n.v.	TEL: (32)1367 0200	FAX: 1367 2030	Malaysia	IWAKIm Sdn. Bhd.	TEL: (60)3 7803 8807	FAX: 3 7803 4800
China	IWAKI Pumps (Shanghai) Co., Ltd.	TEL: (86)21 6272 7502	FAX: 21 6272 6929	Norway	IWAKI Norge AS	TEL: (47)23 38 49 00	FAX: 23 38 49 01
China	IWAKI Pumps (Guangdong) Co., Ltd.	TEL: (86)750 3866228	FAX: 750 3866278	Singapore	IWAKI Singapore Pte. Ltd.	TEL: (65)6316 2028	FAX: 6316 3221
China	GFTZIWAKI Engineering & Trading (Guangzhou)	TEL: (86)20 8435 0603	FAX: 20 8435 9181	Spain	IWAKI Iberica Pumps, S.A.	TEL: (34)943 630030	FAX: 943 628799
China	GFTZIWAKI Engineering & Trading (Beijing)	TEL: (86)10 6442 7713	FAX: 10 6442 7712	Sweden	IWAKI Sverige AB	TEL: (46)8 511 72900	FAX: 8 511 72922
Denmark	IWAKI Nordic A/S	TEL: (45)48 24 2345	FAX: 48 24 2346	Switzerland	IWAKI (Schweiz) AG	TEL: (41)26 674 9300	FAX: 26 674 9302
Finland	IWAKI Suomi Oy	TEL: (358)9 2745810	FAX: 9 2742715	Taiwan	IWAKI Pumps Taiwan Co., Ltd.	TEL: (886)2 8227 6900	FAX: 2 8227 6818
France	IWAKI France S.A.	TEL: (33)1 69 63 33 70	FAX: 1 64 49 92 73	Taiwan	IWAKI Pumps Taiwan (Hsin-chu) Co., Ltd.	TEL: (886)3 573 5797	FAX: (886)3 573 5798
Germany	IWAKI EUROPE GmbH	TEL: (49)2154 92540	FAX: 2154 9254 48	Thailand	IWAKI (Thailand) Co.,Ltd.	TEL: (66)2 322 2471	FAX: 2 322 2477
Holland	IWAKI EUROPE NL Branch	TEL: (31)547 293 160	FAX: 547 292 332	U.K.	IWAKI Pumps (UK) LTD.	TEL: (44)1743 231363	FAX: 1743 366507
Hong Kong	IWAKI Pumps Co., Ltd.	TEL: (852)2 607 1168	FAX: 2 607 1000	U.S.A.	IWAKI AMERICA Inc	TEL: (1)508 429 1440	FAX: 508 429 1386
Indonesia	IWAKI Singapore (Indonesia Branch)	TEL: (62)21 690 6606	FAX: 21 690 6612	Vietnam	IWAKI Pumps Vietnam Co.,Ltd.	TEL: (84)613 933456	FAX: 613 933399