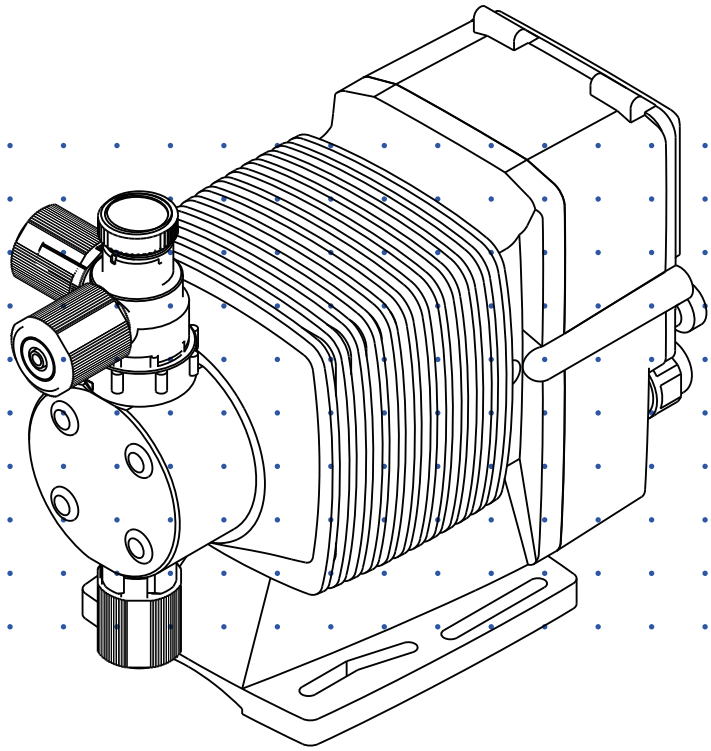
IWAKI PUMPS

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.

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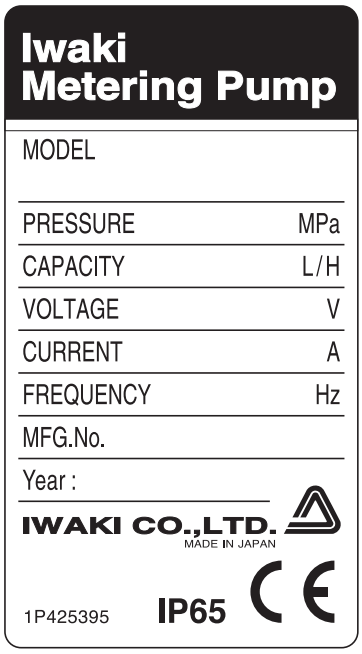
Order confirmation

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.



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.

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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
PTFE : Polytetrafluoroethylene
PCTFE : Polymonochlorotrifluoroethyle
FKM : Fluorine-contained rubber
CE : Alumina ceramics
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

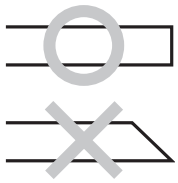
Pipework

Connect tubes to the pump and install a check valve.

Before operation

• Cut the tube ends flat.

Tube end (Side view)



Necessary tools

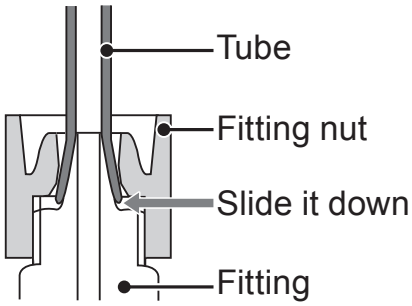
• Adjustable wrench or spanner

Tube connection

a. 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.

b. 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.



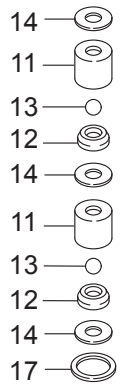
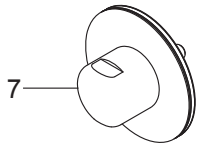
Wear part replacement

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	Valve set		2 sets	8000 hours
	Diaphragm		1	

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

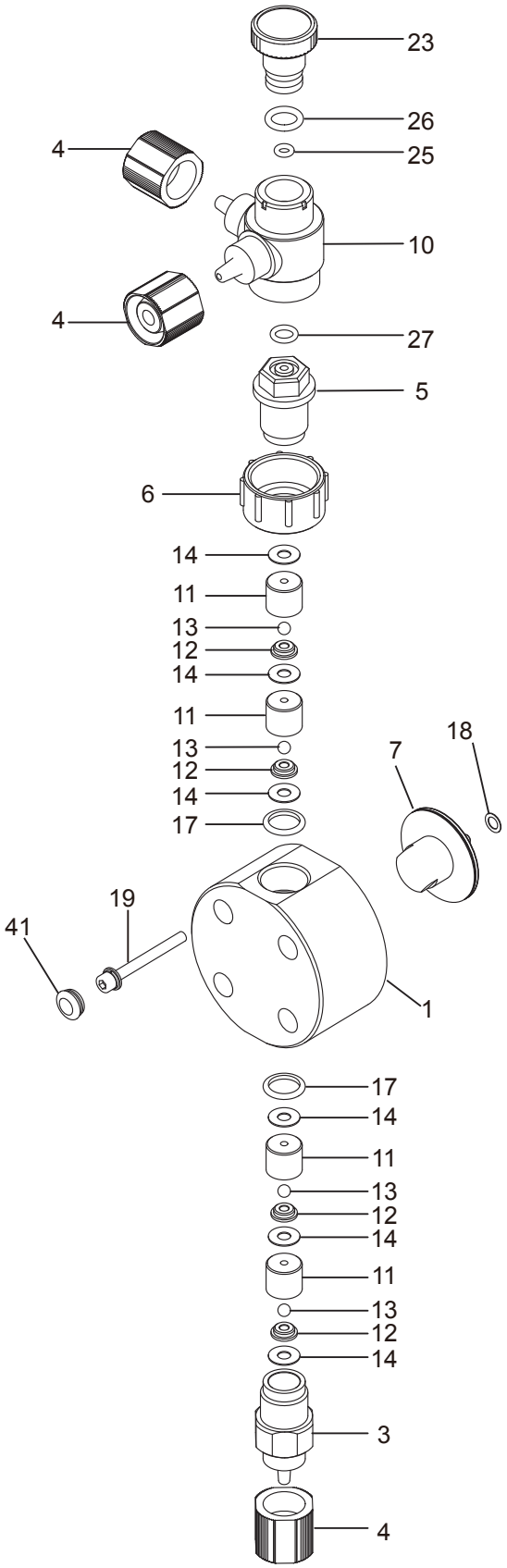
*Wear part duration varies with the pressure, temperature and characteristics of liquid.

*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 consumption 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

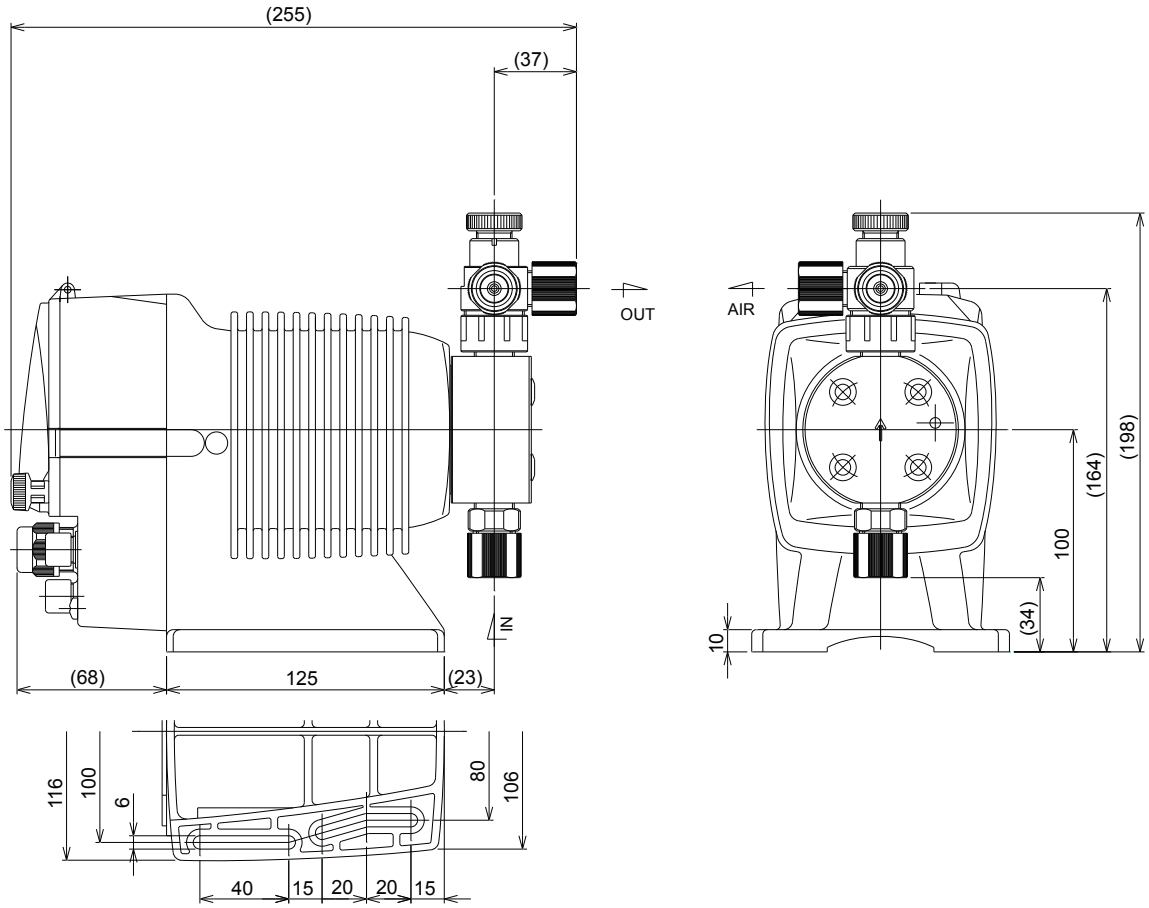
Conduction section area	0.75 [mm^2] Triplex cable(L/N/PE)	Standard	H03VV-F
Length	2000 [mm]	Terminal treatment	European plug

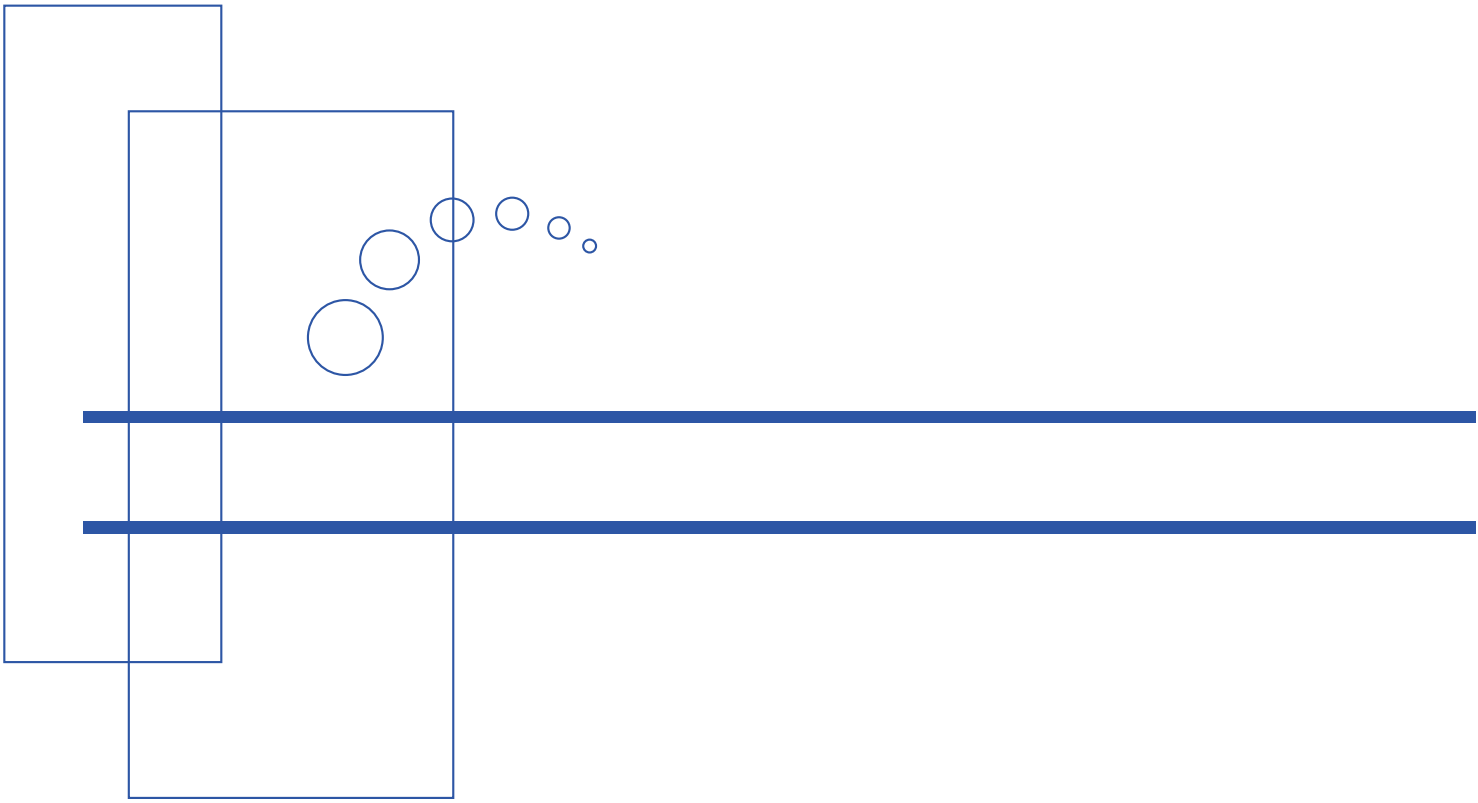
■ Pump colour

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

Outer dimensions

■ EWN-CH





IWAKI PUMPS

http://www.iwakipumps.jp

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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
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