



Electromagnetic Metering Pumps **EWN-WCL**

An electromagnetic metering pump
featuring a residual chlorine meter



The Heart of Industry

An electromagnetic metering pump featuring a residual chlorine meter

The IWAKI EWN-WCL electromagnetic pump is a pump incorporating a controller so as to control the residual chlorine automatically. There is no need to prepare a separate pump controller, but you can organize the residual chlorine control system by merely connecting the dedicated sensor to the pump. You can reduce the initial investment for facility introduction and compactify your facilities.

Main use: Warm-bathing facilities, pool

Measurement unit (sensor, flow cell)

Stable measurement is possible via mechanical cleaning with beads and automatic electrolytic cleaning. An inline-type flow cell is adopted to enable measurement with a small volume of test water.



Display unit for the residual chlorine meter

The operating conditions can be checked on the specially developed large LCD, with backlight. An easy-to-use key switch is adopted to enable superior operability.



Pump body

Seal portions have been reduced owing to integral molding with waterproof and dustproof specifications (IP65 equivalent). Considering various usage conditions, we have adopted a resin cover for the controller unit and waterproof capability for each connecting terminal.



Specifications

Pump

Model		B11	B16	B21	B31	C16	C21	C31	C36
Max. pressure	MPa	1.0	0.7	0.4	0.2	1.0	0.7	0.35	0.2
Max. capacity	mL/min	38	65	100	200	80	130	270	420
Connection	mm	Ø4×Ø9			Ø8×Ø13	Ø4×Ø9		Ø8×Ø13	
Power voltage		100 - 240VAC 50/60Hz							
Air vent valve		Provided							
Average current		0.8A/20W				1.2A/24W			
Mass	kg	2.5				3.5			
Standard accessories	Check valve	CAN-1			CAN-2-L	CAN-1		CAN-2	CAN-2-L
	Braided hose	Ø4×Ø9 or Ø8×Ø13 PVC 3m							

- The performance is based on pumping clean water at ambient temperature at rated voltage.
- Each discharge capacity shown above is at maximum discharge pressure (stroke length 100%, stroke rate 360%) and increases as a discharge pressure reduces.
- 0.13MPa or more discharge pressure is needed to prevent over feeding (0.05MPa or more for the EWN-B31 and C36).
If the discharge pressure is at or below the required MPa, install a check valve or back pressure valve.
- Operating condition: Liquid temperature range 0 - 40 °C, Ambient temperature range 0 - 40 °C
- Please contact us for non-standard connections.

Controller

Measured element		Free residual chlorine (tap water level equivalent, sodium hypochlorite only)
Measuring principle		Polarographic
Measuring method		Beads cleaning, minute solid precious metal three-electrode method
Test water		pH range: pH6.0 to 8.0, Electric conductivity range: 10mS/m or more, Temperature range: 0 - 45°C
Control function	Function	AUTO/MANUAL
	Control method	Proportional control
Display	Setting method	6 keypads Start/Stop, Up, Down, SET, CAL, ESC
	LCD	Backlit LCD 4x2 characters Measured value, Set value, Error indication
	LED	Red/Orange 1xLED Green/Orange 1xLED Red 2xLED
	STOP/PreSTOP	Red/Orange 1xLED (Red: Stop input Orange: PreSTOP input)
Input	Output(alarm)behavior	(The output turns on along with output setting.)
	Sensor input range	0.00 - 3.00 mg/L, Automatic temperature compensation
	STOP/PreSTOP ^{Note1}	Red LED lights and the pump stops at contact input. / Orange LED lights at contact input
	AUX ^{Note2}	The pump runs at 360spm when the non voltage contact is on
Output	Interlock	The pump stops
	Output1 ^{Note3}	The non voltage contact is on (Mechanical relay) AC250V3A 1. Upper limit output 2. Lower limit output 3. Select of all functions ^{Note4} (Select one function)
	Output2 ^{Note3}	The non voltage contact is on (Photo MOS relay) AC/DC 24V 0.1A 1. Upper limit output 2. Lower limit output 3. Select of all functions ^{Note4} 4. spm synchronous output (Select one function)
Calibration		0 point calibration span calibration
Function		Measured value shift, Selection of automatic/manual temperature compensation, Key lock (with PIN number), Error indication
Power voltage		100 - 240VAC 50/60Hz

Note1: When using the STOP/PreSTOP signal, you will need to purchase the STOP signal cable separately.

Note2: When using AUX/Interlock as the input signal, you will need to purchase the external input signal cable separately.

Note3: When using output signal, you will need to purchase the output signal cable separately.

Note4: For batch output, select enable/disable for Sensor Failure, STOP, PreSTOP, Interlock, and the AUX outputs respectively (all outputs can also be selected).

• Note that the connecting parts of the input signal and output signal, excluding the sensor input signal, are of a DIN connector-type connection.

Residual chlorine sensor

Model	RS-20L-D
Temperature compensation range	0 to 99.9°C (Pt1000Ω)
Installation method	Attached to the flow cell (RF-20 type)
Electrode cleaning method	Machine-polishing washing with beads and electrolytic cleaning
Cable connection	By attaching and detaching connectors
Cable length	5m

Flow cell

Model	RF-20
Inspection flow rate	1.1 to 1.5L/min
Withstand pressure	0.5MPa
Wet end materials	PVC, PE, FKM, alumina ceramics, PMMA
Connection port diameter	Test water inlet: R1/2; test water outlet: R1/2

Part names for the wiring section



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() Country codes

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.

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