

Hi-Techno Pump



High Turndown Ratio and High Accuracy

IX series use efficient Brushless DC motors for speed control. High resolution motor control adjusts the discharge and suction speeds to meet a full and accurate turndown ratio of 100:1 and minimum flow down to 0.0075L/H.

The pumps are 1% repeatable across most of the control range.

Degassing valve unit Design

(Patent Pending)

One of the most advantageous features of the IWAKI IX Series Metering Pumps is the excellent degassing ability due to their proprietary valve unit design. The IX-B pumps retain this feature creating an entire pump line that will not gas lock and has no priming issues!

Flexible Installation

(Patent Pending)

The IX-B Pumps have been designed to be installed into various locations. The control unit can easily be repositioned by customers on-site. The pump can also be relocated from base mounted to wall mounted without any extra parts required.



1. Remove the pump base. 2. Fix the pump base.





Two steps on both sides (every 35 degrees)



Upward 4 directions (every 90 degrees)



Installation example (with wall)

Flexible Connections

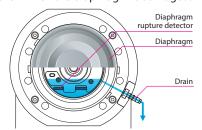
Tubing, Threaded, Flanged or Union connections are available as standard options

providing easy installation for any application.



Safety design

Standard to all models is a diaphragm rupture detector, protecting users and the environment. Also, a detector for abnormal operation protects the pipework in case of an accidental high discharge pressure caused by clogging or improper operation. A drain hole also ensures safe operation even when the diaphragm is damaged.



Note: In some cases it may not be able to detect sudden rises in pressure occurring in shutoff operation. If the piping or machinery in use has low pressure resistance, install a separate safety valve.

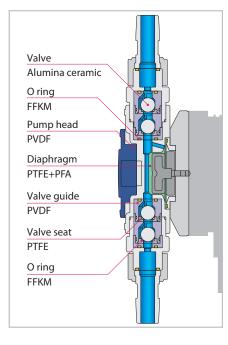
LED Status Bar

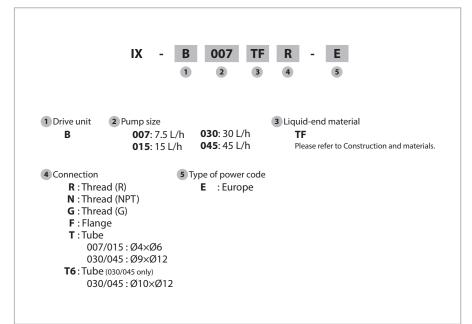
A large LED status bar provides simple visual indication of operating conditions at a glance. It is easily visible to see the pump status at a distance or in dark locations.



Construction and materials

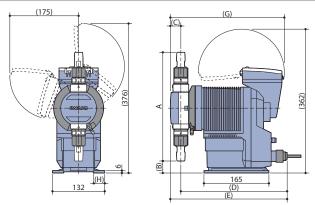
Pump identification



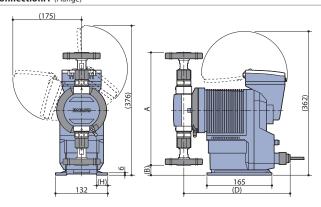


Dimensions (mm)

Connection: R/N (R Thread/NPT Thread)

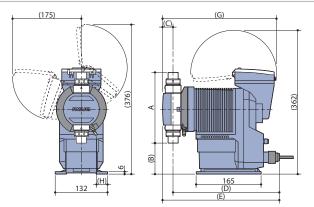




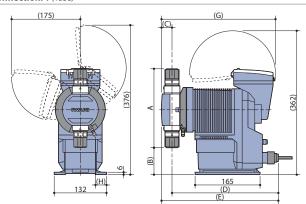


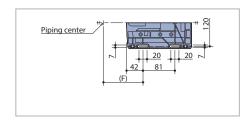
Model	Connection	Α	В	C	D	Е	F	G	Н
IX-B007	R/N	240	45	24.3	267	291	94.5	284	- 29
	G	146	92					204	
	F	250	40	_		_		_	
	T	168	81	24.3		291		284	
IX-B015	R/N	249	41	24.3	267	291	94.5	284	- 29
	G	155	88	24.3				204	
	F	259	36	_		_		_	
	Т	177	77	24.3		291		284	
	R/N	273	30	26.4	270	296	97.5	289	28
IX-B030/045	G	179	77	20.4				209	
	F	283	25	_		_		_	
	T/T6	201	66	26.4		296		289	

Connection: G (G Thread)



Connection: T (Tube)





Specifications

Pump

M. J.I		Capacity	Max. pressure	Power consumption	Current	Connection	Mass
Model		L/h	MPa	W	Α		kg
IX-B007 (TF)	R		1.7	17	0.4	R1/2	3.5
	N	0.0075 - 7.5				1/2NPT	3.5
	G					G3/4	3.5
	Т		1.7 ^{Note 1}			Please refer to Pump identification.	3.5
	F		1.0			JIS 10K 15A, DIN PN10 DN15, ANSI 150Lb 1/2"	3.7
IX-B015 (TF)	R	0.015 - 15	1.0	17		R1/2	3.5
	N				0.4	1/2NPT	3.5
	G					G3/4	3.5
	Т		1.0 ^{Note 1}			Please refer to Pump identification.	3.5
	F		1.0			JIS 10K 15A, DIN PN10 DN15, ANSI 150Lb 1/2"	3.7
IX-B030 (TF)	R	0.03 - 30	0.6		0.5	R1/2	3.7
	N					1/2NPT	3.7
	G			19		G3/4	3.7
	T/T6		0.6 ^{Note 1}			Please refer to Pump identification.	3.7
	F		0.6			JIS 10K 15A, DIN PN10 DN15, ANSI 150Lb 1/2"	3.9
IX-B045 (TF)	R	0.045 - 45	0.4	19	0.5	R1/2	3.7
	N					1/2NPT	3.7
	G					G3/4	3.7
	T/T6		0.4 ^{Note 1}			Please refer to Pump identification.	3.7
	F		0.4			JIS 10K 15A, DIN PN10 DN15, ANSI 150Lb 1/2"	3.9

- The above is the value at rated voltage, ambient temperature and clear water.
 The pressure at which the abnormal pressure detection function operates is 1.3 to 2 times the maximum discharge pressure.
 Operating ambient temperature: 0 50 °C
 Flanges will be shared with the standards listed in the table.

Controller

	MAN (Manual)		Use the UP (\uparrow) and DOWN (\downarrow) keys to set a flow rate.				
Operation mode	Analog fixed operation		4-20, 0-20, 20-4, 20-0mA (Proportional to the discharge rate)				
		Analog variable operation	Programmable 2-point setting (Input signal DC 0–20 mA, proportional to the discharge rate)				
			0.000625mL/PLS - 15.000000mL/PLS (IX-B007)				
		- I Notel	0.001250mL/PLS - 30.00000mL/PLS (IX-B015)				
		Pulse control ^{Note1}	0.002500mL/PLS - 60.00000mL/PLS (IX-B030)				
			0.003750mL/PLS - 90.00000mL/PLS (IX-B045)				
		Batch control ^{Note1}	0.625mL/PLS - 15.000L/PLS (IX-B007)				
	EXT		1.250mL/PLS - 30.000L/PLS (IX-B015)				
			2.500mL/PLS - 60.000L/PLS (IX-B030)				
			3.750mL/PLS - 90.000L/PLS (IX-B045)				
		Interval batch control ^{Note1}	Day: 0 - 9, Hour: 0 - 23, Minute: 1 - 59				
			0.625mL/PLS - 15.000L/PLS (IX-B007), 1.250mL/PLS - 30.000L/PLS (IX-B015)				
			2.500mL/PLS - 60.000L/PLS (IX-B030), 3.750mL/PLS - 90.000L/PLS (IX-B045)				
		Profibus control ^{Note7}	Communication protocol: Profibus-DP-compliant international standard: EN50170 (IEC61158)				
	LCD	16 digits × 2 lines, backlit character LCD					
Monitors	150	White: When the pump is stopped etc., Green: During pump operation etc., Orange: When entering Pre-Stop etc., Red: When alarm such as abn					
	mal pressure detection etc.						
Operation	Keypads	(♠)Start/Stop, MENU, ESC, (€	art/Stop, MENU, ESC, ($m{\downarrow}$)Enter, ($m{\uparrow}$)Up, ($m{\downarrow}$)Down, ($m{\leftarrow}$)Left and ($m{\rightarrow}$)Right keys				
	STOP		Operation stops with input contact ^{Note2}				
	PRIME		Max spm operation by pressing the (\uparrow)UP and (\downarrow)DOWN keys				
	Keylock		Password setting to lock and release operation keys				
Control	Interlock		Operation stops with input contact ^{Note2}				
function	AUX		Pump operates at the set discharge rate with input contact.				
	Maximum discharge rate		Arbitrarily set the upper discharge limit in each operation mode.				
	Buffer memory function		Store the number of pulses entered in batch operation.				
	Analog input value display		Display the analog input value.				
	STOP/Pre-Stop		Non-voltage contact or open collector ^{Note3}				
	AUX		Non-voltage contact or open collector ^{Note3}				
Input	Interlock		Non-voltage contact or open collector ^{Note3}				
	Analogue		0 - 20mADC (Internal resistance is 200Ω.)				
	Palse		Non-voltage contact or open collector Max pulse frequency is 100Hz. (Pulse ON: 5 msec or more)				
Output	Alarm1 (OUT1)		Non-voltage contact (mechanical relay): AC 250 V, 3 A (resistive load) Each output item is selected by Enable/Disable. (Initial value: Leak Detection only Enable) Stop/Pre-Stop/Interlock/Leak Detection/Motor Overload/Batch Complete Note Provided (Prive Error				
	Alarm2 (OUT2)		Non-voltage contact (photo MOS relay): AC/DC 24 V, 0.1 A (resistive load) Each output item is selected by Enable/Disable. (Initial value: Interlock only Enable) Stop/Pre-Stop/Interlock/Leak Detection/Motor Overload/Batch Complete Note4/Drive Error/Volume Prop. PLS Note5				
	External power supply		DC12V 30mA or less				
	Current		DC 0–20 mA, Two-point setting (allowable load resistance: 300 Ω)				
Power volta	ge ^{Note6}		100-240VAC 50/60Hz				
		-f	on, and interval hatch operation are the flow rates per stroke corrected by calibration				

Note1: The minimum settings for pulse operation, batch operation, and interval batch operation are the flow rates per stroke corrected by calibration.

Also, the change rate of the setting value per pulse is the flow rates per stroke corrected by calibration.

Note2: Pump operation or pump stop can be selected at contact input.

Note3: The maximum voltage and current applied to the contact are 12 V and 5 mA. If you use a contact such as a relay, the minimum applicable load must be 5 mA or less.

Note: When Nothing Profibus bus operation, a separate Profibus Conversion BOX (option) is required.

Note 1: Use below the maximum allowable pressure of a connected tube.

Liquid temperature range: 0 - 50 °C (TF) (No viscosity change, Non freezing, No slurry.)

Allowable voltage fluctuation: within ± 10% of the rated voltage

Operating humidity range: 30 - 90%RH (Non condensing in the controller)

Optional accessories









- 1. DIN 5-pin connector cable External control signal cable (5m) (External control signal input) Selection No. IX0018
- 2. DIN 5-pin connector cable STOP signal and AUX signal cable (5m) (STOP signal input) Selection No. IX0019
- 3. DIN 4-pin connector cable Outrut signal cable (5m) (Signal output) Selection No. IX0020
- Profibus communication

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Legal attention related to export.

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.

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.

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