



High-Precision, Multi-Function Digital Metering Pumps
Wide Performance Range for Diverse Chemical Dosing Requirements

A New Generation of Advanced Metering Pump Technology!

Hi-Techno Pump

IX

The Iwaki IX Series is a new generation of digitally controlled, direct-drive diaphragm metering pumps designed to deliver exceptional precision, efficiency, and reliability. Built on decades of expertise in advanced motor and pump technology, IWAKI has integrated intelligent digital control, high precision, and a robust mechanical design in a energy-efficient, and environmentally responsible package. The IX Series are able to meet today's growing demand for automated, chemical delivery systems dosing across a broad range of industrial applications from water treatment to chemical processing.



High Turn Down Ratio



Viscous Liquid Transfer



Cavitation Prevention



Automatic Control



Energy Savings
and Eco-Friendly



Constant Injection
with Low Impact



Degassing



Safety Design



Precise Chemical
Dosing Operation



IP65



Calibration



User Friendly Design



Efficient Pump Head Design
is Incorporated
with High Compression



Compliant to
World Standards



Operation History



Flexible Installation
IX-B/C

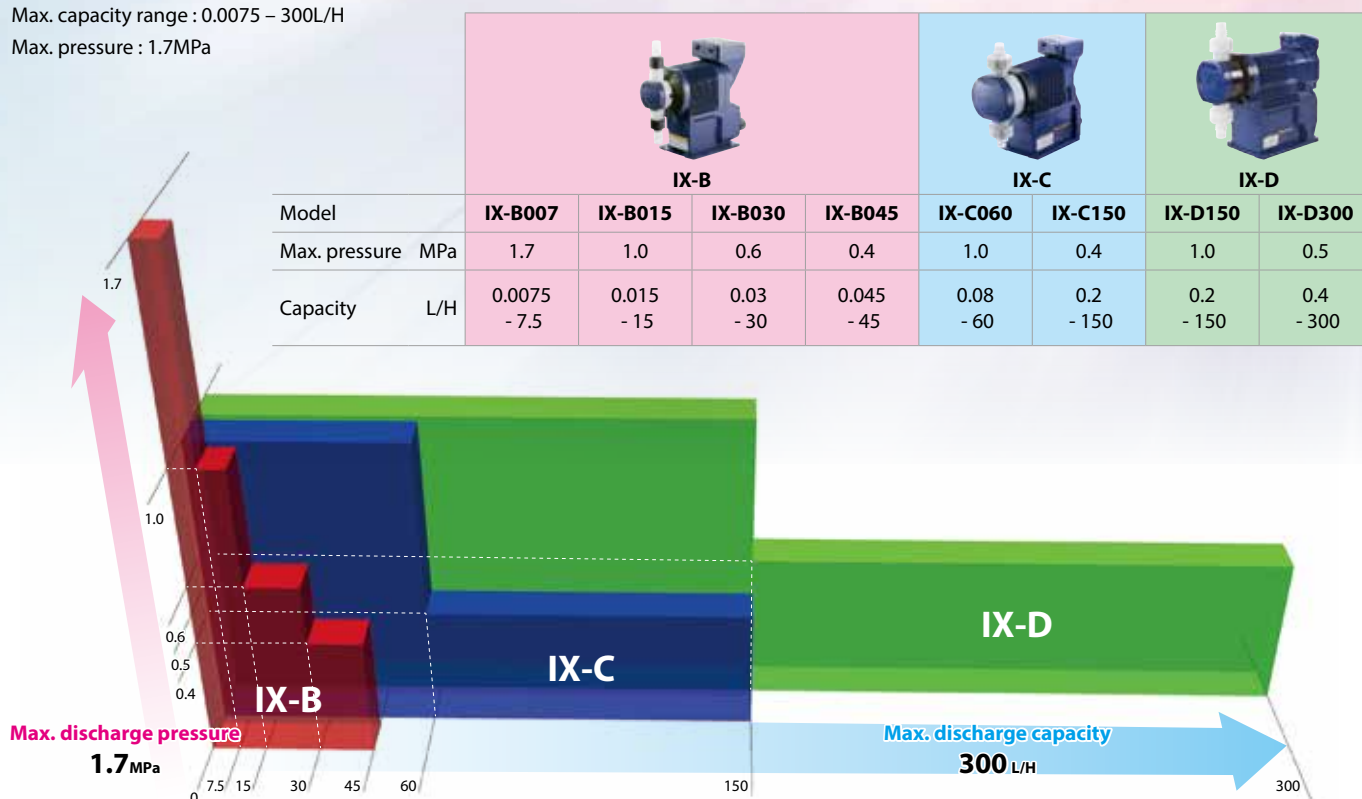


High Turn-Down Ratio

A wide operating range—from ultra-low to high flow rates—allows a single pump to cover multiple dosing requirements, simplifying system design and reducing inventory.

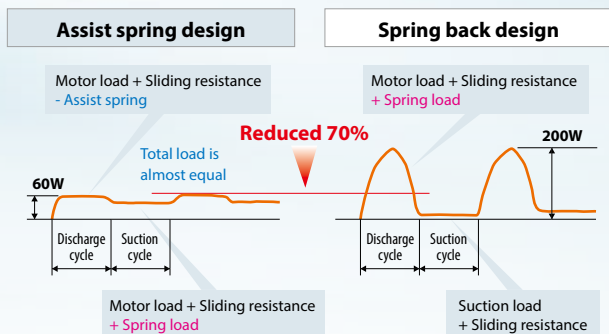
Max. capacity range : 0.0075 – 300L/H

Max. pressure : 1.7MPa



Energy-Efficient and Eco-Friendly Design

Innovative helical gear drive and spring-assist technology significantly reduce power consumption compared with conventional spring-return designs, delivering substantial energy savings and lower operating costs. (IX-C type)



Precise Chemical Dosing

Precise motor control combined with optimized valve design ensures precise, repeatable dosing accuracy of $\pm 1\%$ across a wide flow range. This performance is achieved using a durable and cost-effective mechanically driven diaphragm design.

*Some low flow rate areas are excluded.

Efficient Pump Head Design

A high-compression pump head with fixed (maximum) stroke length enables fast priming and accurate operation, minimizing air lock and improving reliability.

Maximum suction lift:

2m With an open discharge line and dry valve condition.

Degassing ability :

IX-B007 : 1.0MPa	IX-B015 : 1.0MPa
IX-B030 : 0.6MPa	IX-B045 : 0.4MPa
IX-C060 : 1.0MPa	IX-C150 : 0.4MPa
IX-D150 : 1.0MPa	IX-D300 : 0.5MPa

With a standard tubing layout.

Viscous Liquid Capability

The IX Series supports a wide range of liquid viscosities:

IX-B: up to 500 mPa·s (model dependent)

IX-C: up to 1000 mPa·s

IX-D: up to 300 mPa·s

(Custom configurations are available for higher viscosities.)

IP65 Protection

Drive and control units are sealed to IP65 for enhanced environmental protection.

Global Compliance

Multi-voltage power supply (100–240 VAC) and compliance with UL and CE standards support global installation.

Cavitation Prevention

Adjustable suction speed helps prevent cavitation under demanding suction conditions, such as with high-viscous liquids or restrictive piping. Suction speed can be set to 75%, 50%, or 25% of normal operation.

Advanced Flow Monitoring and Control ^{Note} (IX-C) **NEW**

Integrated sensors measure pump load in real time, enabling continuous monitoring of operating conditions and early detection of abnormalities.

Note : For models equipped with flow monitoring function.

Discharge pressure monitoring

Internal pump head pressure is estimated from the measured load and displayed in real time on the controller screen.

Flow rate correction operation

Automatic speed adjustment compensates for pressure fluctuations, helping maintain a stable and accurate flow rate.

Flow rate monitoring

An estimated discharge flow rate can be displayed in real time on the controller using the measured load and pump operating speed.

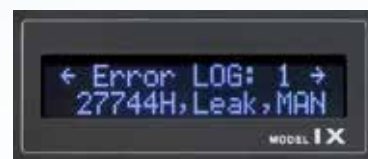
Air intake detection

Detects the presence of gas within the pump head (changes flow conditions), displays the status on the controller, and issues an alarm if required.

Error Log Viewing (IX-C) **NEW**

Enables review of recent error history with detailed information including log number, elapsed power-on time, error description, and operating mode at detection.

Stores up to 10 error records for easy troubleshooting.



Maintenance Notification (IX-C) **NEW**

Automatically alerts users when scheduled maintenance is due based on total operating time. A notification screen is displayed when the set threshold is reached.

*After the notification is displayed, the cumulative operating time is reset and counting restarts.

Degassing

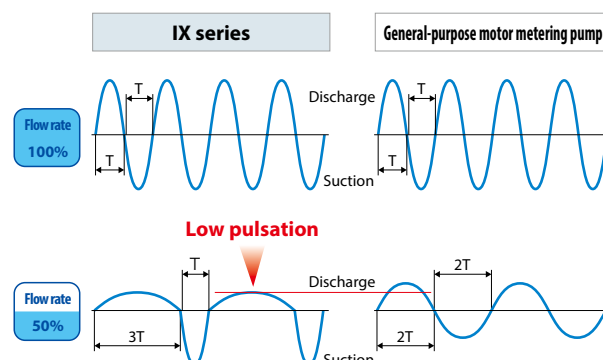
Degassing is performed in any operating mode via keypad control or an external AUX signal, driving the pump at maximum strokes per minute to efficiently remove gas from the pump.

Calibration

Each pump is calibrated prior to shipment. Recalibration after installation is recommended to ensure accuracy under actual piping and fluid conditions.

Low-Impact, Constant Injection

Flow control through discharge speed adjustment (fixed suction speed) maintains a consistent injection rate while reducing pulsation, inertia forces, and stress on discharge piping.



Operation History

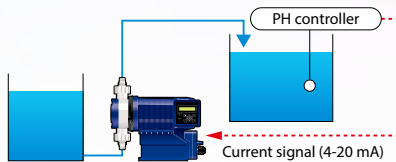
Controller memory logs the total power connection time, operating time, number of strokes and number of power-up events.

Automatic Control

The IX can run in analogue, pulse, batch or interval batch modes.

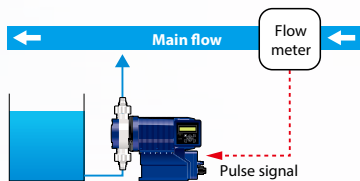
Analogue operation

The pump operates in response to an input, (4-20mA) from a controller.



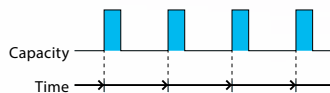
Pulse operation

When combined with a flow meter or contact head water meter, the IX pump gives a paced dose rate in proportion to the main flow rate.



Interval batch operation

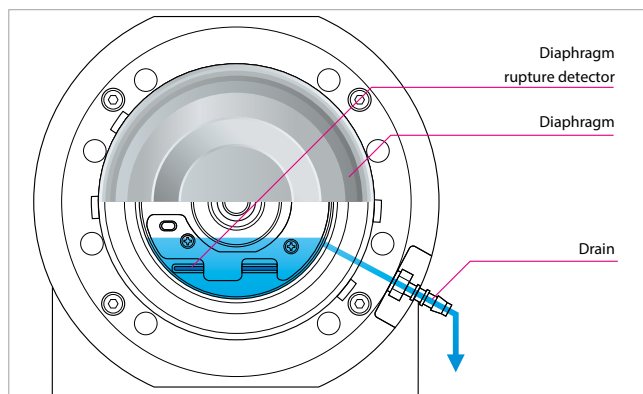
Timed operation is possible with simple pump programming via the keypad and is initiated with a pulse signal.



Safety Design **Standard Equipment**

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.

*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.



Excellent Utility

Excellent corrosion resistance

PVDF with excellent corrosion resistance is used as standard for the wet end materials. The 100% fluoro resin diaphragm also supports liquid transfer, which is easily permeable to gas. (IX-B)

LED status bar (IX-B/C)

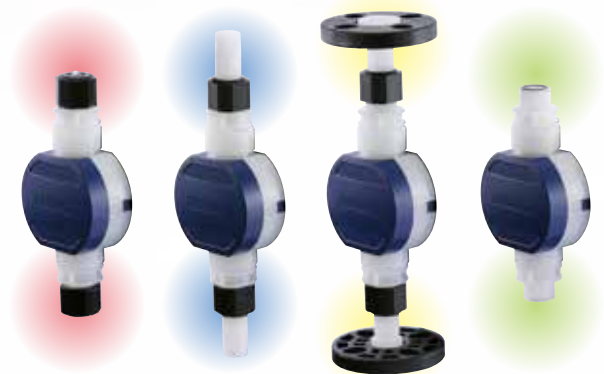
A large LED status bar provides simple visual indication of operating conditions at a glance. It is easily visible to see the pump status at a distance or in dark locations.



Flexible connections

Tubing, Threaded, Flanged or Union (Made by George Fisher) connections are available as standard options providing easy installation for any application.

*Tube connection is only available for IX-B.



IX-B/C for Flexible Installation

Control unit can easily be repositioned by customers on-site.

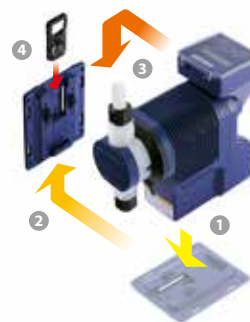


Upward 4 directions (every 90 degrees)



Two steps on both sides (every 35 degrees)

IX-B TC/TE types can also be relocated from base mounted to wall mounted without any extra parts required.

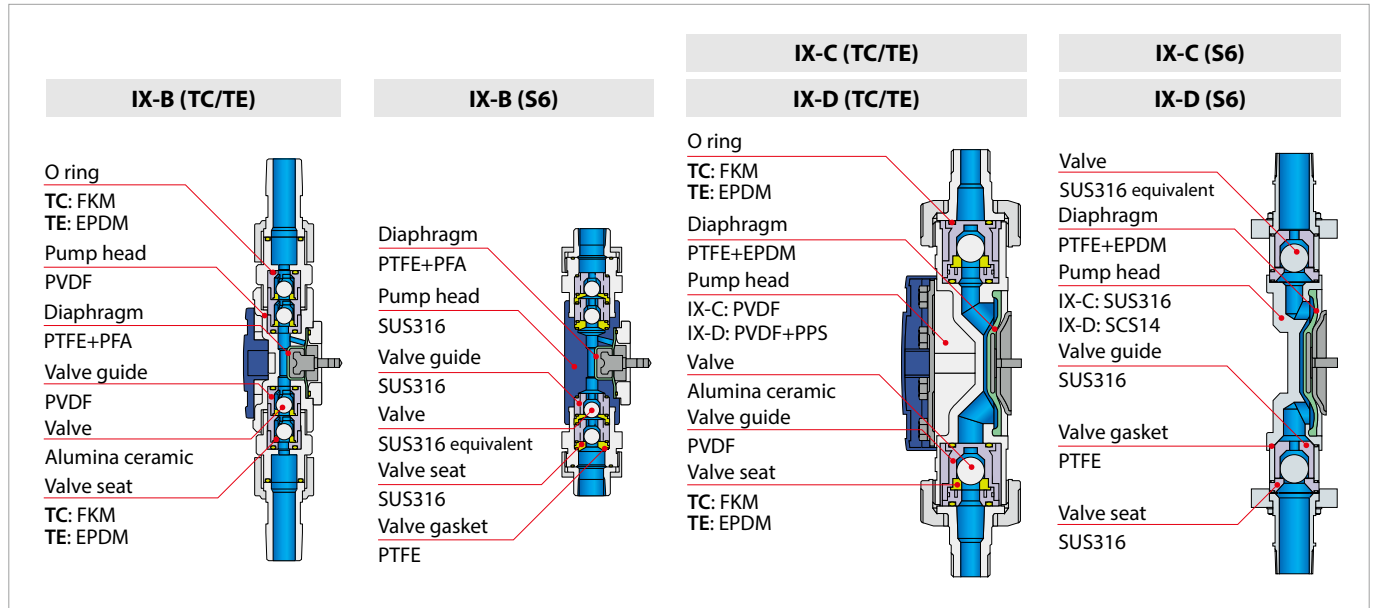


- 1 Remove the pump base.
- 2 Fix the pump base.
- 3 Hook the pump body.
- 4 Fix it with an adapter.



Installation example (with wall)

Construction and Materials



Note: PPS of the pump head and PFA/EPDM of the diaphragm is not wet end materials.

Identification

IX-B

IX - B 007 TC R - E □□

①	②	③	④	⑤	⑥
① Drive unit B	② Pump size 007 : 7.5L/H 015 : 15L/H 030 : 30L/H 045 : 45L/H	③ Liquid-end material TC, TE, S6 Please refer to above figure.	④ Connection Applicable model : TC/TE R : Thread (R) N : Thread (NPT) G : Thread (G) F : Flange T : Tube Applicable model : S6 R : Thread (Rc) N : Thread (FNPT) FD : Flange (DIN) FA : Flange (ANSI) FJ : Flange (JIS)	⑤ Type of power code E : Europe A : Australia J : Asia U : USA (115V) U2 : USA (230V)	⑥ Special arrangement code No code : Standard models □□ : Customized models

	Europe	Australia	Asia	USA
007/015	Ø4×Ø6	Ø6×Ø8	Ø4×Ø9, Ø4×Ø6	1/4"×3/8"
030/045	Ø9×Ø12	Ø9×Ø12	Ø8×Ø13, Ø9×Ø12	3/8"×1/2"

IX-C

IX - C 060 TC R - JA R - □

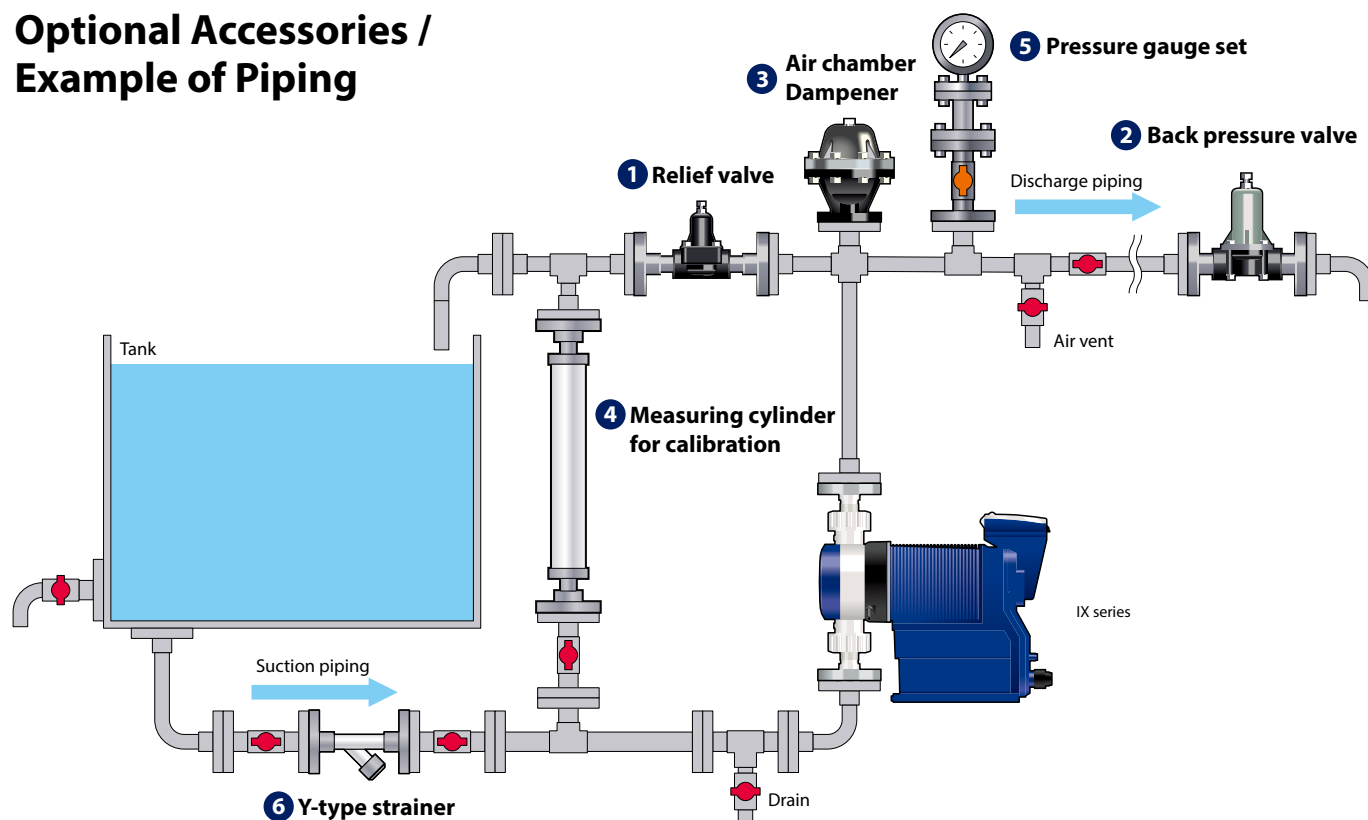
①	②	③	④	⑤	⑥	⑦
① Drive unit C	② Pump size 060 : 60L/H 150 : 150L/H	③ Liquid-end material TC, TE, S6 Please refer to above figure.	④ Connection R : Thread (R) N : Thread (NPT) F : Flange (JIS/DIN/ANSI)* FJ : Flange (JIS) FD : Flange (DIN) FA : Flange (ANSI) *060TC/TE type only.	⑤ Type of power code JA : Japan/Asia EU : Europe US : USA (115V) UH : USA (230V) AU : Australia	⑥ Controller function code R : Flow monitor function not installed Y : Flow monitor function installed	⑦ Special arrangement code No code : Standard models S : Customized models

IX-D

IX - D 150 TC R - TB □ - E □

①	②	③	④	⑤	⑥	⑦	⑧
① Drive unit D	② Pump size 150 : 150L/H 300 : 300L/H	③ Liquid-end material TC, TE, S6 Please refer to above figure.	④ Connection R : Thread (R) N : Thread (NPT) FJ : Flange (JIS) FD : Flange (DIN) FA : Flange (ANSI)	⑤ Controller position TB : Top back TF : Top front TR : Top right TL : Top left RF : Right face LF : Left face	⑥ Model code control number No code : D150 No code : D300	⑦ Type of power code E : Europe J : Japan U : USA (115V) U2 : USA (230V)	⑧ Special arrangement code No code : Standard models S : Customized models

Optional Accessories / Example of Piping



Check valve

Attached to the hose on the discharge side. It prevents overfeeding and backflow of the chemical solution and also prevents siphon.



CAN type



CS type

Model	Material			Set pressure		Connection		Applicable pump
	Body	Spring	O-ring	MPa		IN	OUT	
CAN-1VC-M	PVC	HASTELLOY® C276 equivalent	FKM	0.17	±0.04	Hose connection Ø4×Ø9 ^{Note1} , Ø4×Ø6	Thread connection R3/8, R1/2	IX-B007/015
CAN-1VE-M			EPDM					
CAN-2VC-M			FKM					
CAN-2VE-M			EPDM					
CS-1S	SUS316		PTFE ^{Note2}	0.2	±0.04	Thread connection Rc1/4	Thread connection Rc1/4	IX-B007/015
CS-2S					±0.03	Thread connection Rc3/8	Thread connection Rc3/8	IX-B030/045

Note1 : Applicable hose diameter can be changed. Refer to "Multi-joint connection diameter" on the top right of page 8 for details.

Note2 : The sealing of CS type is a gasket.

Relief valve Model RV

Positive displacement pumps keep operating even in a closed-discharge condition, resulting in piping breakage or pump failure from overpressurization without a relief valve. Always install a relief valve to prevent overpressure in the discharge line.

*IX series has a function to protect the pump while it is operating, but it cannot detect a rise in pressure inside the piping when the pump is stopped, so be sure to install a safety valve to protect the piping.

Also, do not install a shut-off valve between the pump and the safety valve.

1



Model	Body	Material			Max. capacity L/min (L/H)	Set pressure MPa	Connection JIS10K Flange	Applicable pump	Mass kg
RV-3T□-15	PVDF	PTFE	FKM EPDM	3.0 (180)	0.3 - 1.0	15A DIN PN10 DN15 ANSI 150LB 1/2" ^{m Note2}	IX-B, C060	0.7	
RV-3T□-20						20A	IX-C150 IX-D150	0.8	
RV-3T□-MS					0.3 - 1.0 ^{Note1}	Hose connection Ø4×6, Ø4×9	IX-B007/015	0.5	
RV-3T□-ML						Hose connection Ø8×13, Ø9×12	IX-B030/045		
RV-3T□-R						Thread connection R1/2	IX-B		
RV-3T□-N						Thread connection 1/2NPT			
RV-3T□-G					Thread connection G3/4				
RV-3P-15	PVC	PTFE	3.0 (180)	0.3 - 1.0	15A	IX-B, C060	0.6		
RV-3P-20					20A	IX-C150 IX-D150			
RV-3P-25					25A	IX-D300	0.9		
RV-7TV-15	PVDF	PTFE	FKM	7.5 (450)	0.3 - 0.8	15A	IX-B, C060	5	
RV-7TE-15			EPDM			25A	IX-D300		
RV-7TV-25			FKM						
RV-7TE-25			EPDM						
RV-256-15	SUS316 SCS14	PTFE		2.0 (120)	0.3 - 0.8	15A (JIS16K)	IX-B, C060	3.5	
RV-256B-15					0.8 - 1.5				
RV-756-20				7.5 (450)	0.3 - 0.8	20A (JIS16K)	IX-C150 IX-D150	6	
RV-756B-20					0.8 - 1.5				
RV-756-25				7.5 (450)	0.3 - 0.8	25A (JIS16K)	IX-D300	6	
RV-756B-25					0.8 - 1.5				

Note1 : When connecting a hose, use it at a hose normal pressure or less. When used with the IX-B007T (C/E) type pump, it can be installed in a pressure range of 0.3 to 1.7 MPa. However, the maximum flow rate is 0.125L/min (7.52L/H).

Note2 : The flange is a shared product that complies with the standards listed in the table.

Optional Accessories

Back pressure valve

Model BV

Install a back pressure valve when discharge-line pressure is less than 0.03 MPa or less than suction-line pressure. Pump check valves may otherwise not operate correctly and overfeeding may result. Differential pressure between discharge and suction lines must be 0.03 MPa or more and also greater than the inertia resistance (Pid or Pis, whichever greater). Differential pressure (0.03 MPa or more) > Inertia resistance (Pid or Pis, whichever is greater)



PVDF type

2



PVC type

Model	Material			Max. capacity L/min (L/H)	Set pressure MPa	Connection JIS10K Flange	Applicable pump	Mass kg	
	Body	Diaphragm	O-ring						
BV-3T□-15	PVDF		FKM EPDM	0.000125 (0.0075) - 3.0 (180)	0.1 - 0.8 ^{Note1}	15A DIN PN10 DN15 ANSI 150LB 1/2" ^{Note2}	IX-B, C060	0.7	
BV-3T□-20						20A	IX-C150 IX-D150	0.8	
BV-3T□-MS						Hose connection Ø4×6, Ø4×9	IX-B007/015	0.5	
BV-3T□-ML						Hose connection Ø8×13, Ø9×12	IX-B030/045		
BV-3T□-R						Thread connection R1/2	IX-B		
BV-3T□-N						Thread connection 1/2NPT			
BV-3T□-G						Thread connection G3/4			
BV-3P-15	PVC		PTFE	0.03 - 3.0 (1.8 - 180)		15A	IX-C060	0.6	
BV-3P-20						20A	IX-C150 IX-D150		
BV-3NV-15	PVC		FKM	0.005 - 3.0 (0.3 - 180)	0.1 - 0.3	15A	IX-B, C060	0.6	
BV-3NV-20						20A	IX-C150 IX-D150		
BV-3NE-15			EPDM			15A	IX-B, C060	0.6	
BV-3NE-20						20A	IX-C150 IX-D150		
BV-7TV-15	PVDF	PTFE	FKM	0.2 - 7.5 (12 - 450)	0.05 - 0.8	15A	IX-B, C060	5	
BV-7TE-15			EPDM						
BV-7V-20	PVC		PTFE	0.2 - 7.5 (12 - 450)	0.05 - 0.8	20A	IX-C150 IX-D150	3.5	
BV-7F-C17	PVDF					Thread connection Rc1/2	IX-B		
BV-7F-C18						Thread connection Rc3/4			
BV-7TV-25	PVDF	PTFE	FKM	0.2 - 7.5 (12 - 450)	0.05 - 0.8	25A	IX-D300	5	
BV-7TE-25			EPDM						
BV-2S6-15	SUS316 SCS14		PTFE	0.02 - 2.0 (1.2 - 120)	0.05 - 0.8	15A (JIS16K)	IX-B, C060	3.5	
BV-2S6-C17						Thread connection Rc1/2	IX-B		
BV-2S6-C18						Thread connection Rc3/4			
BV-7S6-20						2.0 - 7.5 (12 - 450)	0.1 - 0.8	20A (JIS16K)	IX-C150 IX-D150
BV-7S6-25					25A (JIS16K)	IX-D300			

Contact us for use at smaller flow rates than the above.

Note1: When connecting a hose, use it at a hose normal pressure or less.

Note2: The flange is a shared product that complies with the standards listed in the table.

Air chamber Model A

The air chamber reduces flow pulsation to prevent piping vibration and overfeeding. An air chamber designed for slurry transfer is also available. Contact us for detail.



SUS type



PVC type

3

Model	Material		Capacity L	Max. pressure MPa	Connection JIS10K Flange	Applicable pump	Mass kg	
	Body	O-ring						
A-1VV	PVC	FKM	1.0	0.5	15 - 25A (common)	IX-B, C060	2	
A-1VE		EPDM						
A-2VV		FKM	2.0			IX-C150 IX-D150	2.5	
A-2VE		EPDM						
A-5VV		FKM	5.0			IX-D300	4.5	
A-5VE		EPDM						
A-05S6-10	SUS316		0.5	0.9	10A	IX-B	3	
A-05S6-15					15A			
A-05S6-20					20A			
A-1S6-15			1.5		15A	IX-C060/150 IX-D150	5	
A-1S6-20					20A			
A-1S6-25					25A			
A-5S6-25			5.0		25A	IX-D300	12	
A-5S6-40					40A			

Contact us for other materials.

Dampener

Installed on the discharge side. Reduces pulsation and prevents piping vibration.

3



AQ-10



AQ-85

Model	Material		Capacity mL	Max. pressure MPa	Connection JIS10K Flange	Applicable pump
	Body	O-ring				
AQ-10TV	PVDF+PVC	FKM	164	0.05 - 0.5	Hose connection Ø4×Ø9, Ø4×Ø6	IX-B007/015
AQ-10TE		EPDM				
AQ-10TV-4		FKM			Hose connection Ø8×Ø13	IX-B030/045
AQ-10TE-4		EPDM				
AQ-85TV-15F	PVDF	FKM	1400		15A	IX-C060
AQ-85TE-15F		EPDM			20A	IX-C150 IX-D150
AQ-85TV-20F		FKM				
AQ-85TE-20F		EPDM				

The AQ-85 series is not in standard stock, so please contact us for the delivery date.

Strainer with a foot valve

Attached at the end of the suction hose. Prevents foreign matter from entering the pump chamber and water level fall in the suction hose when the pump is stopped.



Model	Material				Hose Connection	Applicable pump
	Body	Strainer	Valve	O-ring		
FSVN-1	PVC	Fluoro resin (ETFE)	Alumina ceramic	FKM	Ø4×Ø9	IX-B007/015
FSVN-2					Ø4×Ø6	
FSVN-4					Ø8×Ø13	IX-B030/045
FSVN-5					Ø9×Ø12	
FSEN-1	PVC	Fluoro resin (ETFE)	HASTELLOY® C276 equivalent	EPDM	Ø4×Ø9	IX-B030/045
FSEN-2					Ø4×Ø6	
FSEN-4					Ø8×Ø13	
FSEN-5					Ø9×Ø12	
FSTCN-2	PVDF	Fluoro resin (ETFE)	Alumina ceramic	FKM	Ø4×Ø6	IX-B007/015
FSTCN-6					Ø10×Ø12	IX-B030/045

Mesh size : #20

Multi-joint connection diameter

Applicable hose diameter can be changed by removing the fitting nut and rearranging the hose stopper and hose adapter.



Fitting nut



Hose stopper



Hose adapter

Measuring cylinder for calibration

Used to calibrate the discharge rate of the pump. Installed on the suction side to measure the suction amount.



4

Model	Material	Capacity mL	Connection ^{Note}	Applicable pump
CC-PVC-500-FD	PVC	500	JIS10K15A ANSI 150LB 1/2" DIN PN10 DN15	IX-B
CC-PVC-1000-FD		1000		IX-C060
CC-PVC-2000-FD		2000	JIS10K25A ANSI 150LB 1" DIN PN10 DN25	IX-C/D150
CC-PVC-4000-FD		4000		IX-D300

Note : The flange is a common item that complies with the standards listed in the table.

Pressure gauge set

A convenient unit that combines a pressure gauge and a stop valve. Necessary to check the discharge pressure and control air supply to the air chamber. PVC type and SUS type are available.



5

Type	Line up	Valve	Diaphragm	Material	Connection diameter	Max. pressure MPa
				Sealing material		
PVC type	0.3MPa×Ø100×15A	PVC	PTFE	FKM (Ball valve FKM type) EPDM (Ball valve EPDM type) PTFE (Diaphragm valve type)	Flange connection 15A	0.3
	0.5MPa×Ø100×15A					0.5
	0.6MPa×Ø100×15A					0.6
	1.0MPa×Ø100×15A					1.0
SUS316 type	0.3MPa×Ø100×15A	SUS316	PTFE	PTFE	Flange connection 15A	0.3
	0.5MPa×Ø100×15A					0.5
	0.6MPa×Ø100×15A					0.6
	1.0MPa×Ø100×15A					1.0

Y-type strainer

Installed in the suction piping to prevent dirt and foreign matter from entering the pump chamber. PVC type and SUS type are available.



6

Type	Line up	Material		Connection diameter
		Body	Sealing material	
PVC type	15A, FKM	PVC	FKM	15A
	25A, FKM			25A
PVC type	15A, EPDM		EPDM	15A
	25A, EPDM			25A
SUS type	15A	SUS	PTFE	15A
	20A			20A
	25A			25A

Mesh size : #40

DIN 5-pin connector cable

External control signal cable (5m)
(External control signal input)
Item code : 0401900140



DIN 5-pin connector cable

STOP signal, AUX signal and IX-C output cable (5m)
(STOP signal input)
Item code : 0401900141



DIN 4-pin connector cable

Output signal cable (5m)
(Signal output)
For IX-B/D
Item code : 2131503500



Profibus converter

Profibus communication
For IX-B/D



Specifications

Pumps

Model		Capacity L/hr	Max. pressure MPa	Max. viscosity mPa·s	Liquid temperature range °C	Connection	Power consumption W	Current A	Mass kg					
IX-B007 (TC/TE)	R	0.0075 - 7.5	1.7	— ^{Note2, 3}	0 - 50	R1/2	17	0.4	3.5					
	N					1/2-14 NPT								
	G		G3/4											
	T		Please refer to Pump identification.											
	F		JIS10K 15A, DIN PN10 DN15, ANSI 150LB 1/2" ^{n Note5}			3.7								
IX-B007 S6	R	0.0075 - 7.5 ^{Note4}	1.7	1000 ^{Note2}	0 - 80	Rc3/8	17	0.4	4.5					
	N		3/8-18 FNPT			6.0								
	F□		FJ: JIS 10K 15A, FD: DIN PN10 DN15, FA: ANSI 150LB 1/2"											
IX-B015 (TC/TE)	R	0.015 - 15	1.0	100 ^{Note2, 3}	0 - 50	R1/2	17	0.4	3.5					
	N					1/2-14 NPT								
	G		G3/4											
	T		Please refer to Pump identification.											
	F		JIS10K 15A, DIN PN10 DN15, ANSI 150LB 1/2" ^{n Note5}			3.7								
IX-B015 S6	R	0.015 - 15	1.0	1000 ^{Note2}	0 - 80	Rc3/8	17	0.4	4.5					
	N					3/8-18 FNPT			6.0					
	F□					FJ: JIS 10K 15A, FD: DIN PN10 DN15, FA: ANSI 150LB 1/2"								
IX-B030 (TC/TE)	R	0.030 - 30	0.6	100 ^{Note2, 3}	0 - 50	R1/2	19	0.5	3.7					
	N					1/2-14 NPT								
	G		G3/4											
	T		Please refer to Pump identification.											
	F		JIS10K 15A, DIN PN10 DN15, ANSI 150LB 1/2" ^{n Note5}			3.9								
IX-B030 S6	R	0.030 - 30	0.6	1000 ^{Note2}	0 - 80	Rc3/8	19	0.5	5.0					
	N					3/8-18 FNPT			6.5					
	F□					FJ: JIS 10K 15A, FD: DIN PN10 DN15, FA: ANSI 150LB 1/2"								
IX-B045 (TC/TE)	R	0.045 - 45	0.4	500 ^{Note2, 3}	0 - 50	R1/2	19	0.5	3.7					
	N					1/2-14 NPT								
	G		G3/4											
	T		Please refer to Pump identification.											
	F		JIS10K 15A, DIN PN10 DN15, ANSI 150LB 1/2" ^{n Note5}			3.9								
IX-B045 S6	R	0.045 - 45	0.4	1000 ^{Note2}	0 - 80	Rc3/8	19	0.5	5.0					
	N					3/8-18 FNPT			6.5					
	F□					FJ: JIS 10K 15A, FD: DIN PN10 DN15, FA: ANSI 150LB 1/2"								
IX-C060 (TC/TE)	R	0.08 - 60 ^{Note4}	1.0	1000 ^{Note2}	0 - 50	R1/2	62	0.8	8					
	N					1/2 NPT			9					
	F□					FJ: JIS 10K 15A, FD: DIN PN10 DN15, FA: ANSI 150LB 1/2" ^{n Note5}			10.5					
IX-C060 S6	R				0.2 - 150 ^{Note4}	0.4			1000 ^{Note2}	0 - 80	R1/2	62	0.8	9
	N										1/2 NPT			11
	F□	FJ: JIS 10K 15A, FD: DIN PN10 DN15, FA: ANSI 150LB 1/2"	13											
IX-C150 (TC/TE)	R	0.2 - 150 ^{Note4}	0.4	1000 ^{Note2}			0 - 50	R3/4		62	0.8			9
	N							NPT 3/4						11
	F□				FJ: JIS10K20A, FD: DIN PN10 DN20, FA: ANSI 150LB 3/4"	13								
IX-C150 S6	R				0.2 - 150 ^{Note4}	0.4	1000 ^{Note2}	0 - 80	R3/4			62	0.8	11
	N								NPT 3/4					13
	F□	FJ: JIS10K20A, FD: DIN PN10 DN20, FA: ANSI 150LB 3/4"												
IX-D150 (TC/TE)	R	0.2 - 150	1.0	300 ^{Note2, 3}				0 - 50	R3/4	110	1.3			14.5
	N								3/4-14 NPT					
	F□				FJ: JIS10K20A, FD: DIN PN10 DN20, FA: ANSI 150LB 3/4"									
IX-D150 S6	R	0.2 - 150 ^{Note4}	1.0	300 ^{Note2, 3}	0 - 80	R3/4	110	1.3	15					
	N					3/4-14 NPT			17					
	F□					FJ: JIS10K20A, FD: DIN PN10 DN20, FA: ANSI 150LB 3/4"								
IX-D300 (TC/TE)	R	0.4 - 300	0.5	300 ^{Note2, 3}	0 - 50	R1	110	1.3	15.5					
	N					1-11.5 NPT								
	F□					FJ: JIS10K 25A, FD: DIN PN10 DN25, FA: ANSI 150LB 1"								
IX-D300 S6	R	0.4 - 300 ^{Note4}	0.5	300 ^{Note2, 3}	0 - 80	R1	110	1.3	17					
	N					1-11.5 NPT			19.5					
	F□					FJ: JIS10K 25A, FD: DIN PN10 DN25, FA: ANSI 150LB 1"								

Note1 : Use below the maximum allowable pressure of a connected tube.

Note3 : A dedicated valve is required when using with high-viscosity liquid.

Note2 : When transferring viscous liquid, the discharge rate may decrease. When selecting a pump, allow a margin for the discharge amount.

Note4 : For the IX-B, accuracy is not guaranteed at flows below 30 mL/h. For the IX-C060, accuracy is not guaranteed at flows below 0.4 L/h. For the IX-C150, accuracy is not guaranteed at flows below 1.0 L/h. For the IX-D150, accuracy is not guaranteed at flows below 1.5 L/h. For the IX-D300, accuracy is not guaranteed at flows below 3.0 L/h.

Note5 : Flanges will be shared with the standards listed in the table.

• 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.
 • No viscosity change, Non freezing, No slurry. • The max. discharge capacity is obtained in operation with clear water at ambient temperature and the max. discharge pressure. It gets higher as the pressure gets lower.
 • Operating humidity range: 30-90%RH (Non condensing in the controller) • Operating temperature range: 0-50 °C (Indoor use only) • Contact us for other plumbing connections.

Controllers

Operation mode	MAN (Manual)		Use the UP and DOWN keys to set a flow rate.	
	Analog fixed operation		4–20, 0–20, 20–4, 20–0 mA (Proportional to the discharge rate)	
	Analog variable operation		Programmable 2-point setting (Input signal DC 0–20 mA, proportional to the discharge rate)	
	Pulse control- Note1	IX-B	0.000625mL/PLS - 15.000000mL/PLS (IX-B007) 0.002500mL/PLS - 60.000000mL/PLS (IX-B030)	0.001250mL/PLS - 30.000000mL/PLS (IX-B015) 0.003750mL/PLS - 90.000000mL/PLS (IX-B045)
		IX-C	0.00625mL/PLS - 120mL/PLS (IX-C060) 0.01560mL/PLS - 300mL/PLS (IX-C150)	
		IX-D	0.01560mL/PLS - 300mL/PLS (IX-D150) 0.03120mL/PLS - 600mL/PLS (IX-D300)	
	Batch control- Note1	IX-B	0.625mL/PLS - 15.000L/PLS (IX-B007) 2.500mL/PLS - 60.000L/PLS (IX-B030)	1.250mL/PLS - 30.000L/PLS (IX-B015) 3.750mL/PLS - 90.000L/PLS (IX-B045)
		IX-C	6.25mL/PLS - 120L/PLS (IX-C060) 15.6mL/PLS - 300L/PLS (IX-C150)	
		IX-D	15.6mL/PLS - 300L/PLS (IX-D150) 31.2mL/PLS - 600L/PLS (IX-D300)	
			Day: 0 - 9, Hour: 0 - 23, Minute: 1 - 59	
	Interval batch control Note1	IX-B	0.625mL - 15.000L (IX-B007) 2.500mL - 60.000L (IX-B030)	1.250mL - 30.000L (IX-B015) 3.750mL - 90.000L (IX-B045)
		IX-C	6.25mL - 120L (IX-C060), 15.6mL - 300L (IX-C150)	
		IX-D	15.6mL - 300L (IX-D150), 31.2mL - 600L (IX-D300)	
	Profibus control ^{Note2}		Communication protocol: Profibus-DP-compliant international standard: EN50170 (IEC61158)	
Monitors	LCD	16 digits × 2 lines, backlight character LCD		
	LED	IX-B IX-C	White: When the pump is stopped etc., Green: During pump operation etc., Orange: When entering Pre-Stop etc., Red: When alarm such as abnormal pressure detection etc.	
		IX-D	OPERATE Lights in green color during pump operation. Lights in orange color when a Pre-Stop signal is input. Lights in red color when the pump has stopped or flashes when overload is detected. ALARM Red: Lights up when Alarm1 or Alarm2 is output	
Operation	Keypads	(Ⓞ)Start/Stop, MENU, ESC, (↵)Enter, (↑)Up, (↓)Down, (←)Left and (→)Right keys		
Control function	STOP	Operation stops with input contact ^{Note3}		
	PRIME	Max spm operation by pressing the (↑)UP and (↓)DOWN keys		
	Keylock	Password setting to lock and release operation keys		
	Interlock	Operation stops with input contact ^{Note3}		
	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.		
Flow monitor function Note4	IX-C	Pressure estimation inside the pump head using an internal sensor, flow rate estimation, flow rate correction, gas intake detection		
Input	STOP/Pre-Stop	No-voltage contact or open collector ^{Note5}		
	AUX	No-voltage contact or open collector ^{Note5}		
	Interlock	No-voltage contact or open collector ^{Note5}		
	Analogue	0 - 20mADC (Internal resistance is 200ohm.)		
	Pulse	Non-voltage contact or open collector Max pulse frequency is 100Hz. (Pulse ON: 5 msec or more)		
Output	Alarm1 (OUT1)	IX-B IX-D	Non-voltage contact (mechanical relay): AC 250 V, 3 A (resistive load) Each output item is selected by Enable/Disable. Batch complete ^{Note6} /STOP/Pre-Stop/Interlock/Leak Detection/Motor Overload/Drive Error	
		IX-C	Non-voltage contact (photo relay): AC/DC 24 V, 0.1 A (resistive load) Each output item is selected by Enable/Disable. Batch complete ^{Note6} /Pump Run ^{Note7} /STOP/Pre-Stop/Interlock/Leak Detection/Gas Detection ^{Note4} /Motor Overload/Drive Error	
	Alarm2 (OUT2)	IX-B IX-D	Non-voltage contact (photo relay): AC/DC 24 V, 0.1 A (resistive load) Each output item is selected by Enable/Disable. (Initial value : Interlock only is enabled) Volume Prop. PLS ^{Note8} /Batch complete ^{Note6} /STOP/Pre-Stop/Interlock/Leak Detection/Motor Overload/Drive Error	
		IX-C	Non-voltage contact (photo relay): AC/DC 24 V, 0.1 A (resistive load) Each output item is selected by Enable/Disable. Volume Prop. PLS ^{Note8} /Batch complete ^{Note6} /Pump Run ^{Note7} /STOP/Pre-Stop/Interlock/Leak Detection/Gas Detection- ^{Note4} /Motor Overload/Drive Error	
	External power supply	DC 12 V, 30 m A or less		
	Current	DC 0–20 mA, Two-point setting (allowable load resistance: 300 Ω)		
	Power voltage ^{Note9}	100-240VAC 50/60Hz		

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 : A separate Profibus conversion BOX (option) is required to operate Profibus on IX.

Note3 : Switches to pump operation with input contact if default state is changed in the controller settings.

Note4 : This function is available when using the IX-C series controller function symbol Y type model.

Note5 : 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.

Note6 : When Batch Complete (batch operation complete output) is set to Enable, the other functions will be set to Disable.

Note7 : When Pump Run (during pump injection output) is set to Enable, the other functions will be set to Disable.

Note8 : When Volume Prop. PLS output is set to Enable, the other functions will be set to Disable.

Note9 : Do not apply voltage out of the specified range. Doing so may cause malfunction or failure. The allowable voltage supply range is 90-264VAC only. (US type: AC100-120V "Allowable power supply voltage: AC90-132V" IX-C only)

Performance

Model	Discharge line inertia resistance Pid		Suction line inertia resistance Pis		NPSHr	Viscosity		Priming lift	Applicable chamber Materials	
	L/hr	MPa/1m	(%)	MPa/1m		Standard valve	Viscous valve		SUS	PVC
IX-B007	~7.50	8.3×10 ⁻⁴	100	8.3×10 ⁻⁴	0.07 MPaA	—	1000 mPa·s	1 m	0.5 L	1.0 L
	~5.60	2.9×10 ⁻⁴	75	4.6×10 ⁻⁴						
	~3.74	9.1×10 ⁻⁵	50	2.1×10 ⁻⁴						
	~1.87	1.7×10 ⁻⁵	25	5.2×10 ⁻⁵						
IX-B015	~15.0	1.6×10 ⁻³	100	1.6×10 ⁻³	0.07 MPaA	100 mPa·s	1000 mPa·s	2 m	0.5 L	1.0 L
	~11.2	5.8×10 ⁻⁴	75	9.2×10 ⁻⁴						
	~7.50	1.8×10 ⁻⁴	50	4.1×10 ⁻⁴						
	~3.74	3.3×10 ⁻⁵	25	1.0×10 ⁻⁴						
IX-B030	~30.0	2.7×10 ⁻³	100	2.7×10 ⁻³	0.06 MPaA	100 mPa·s	1000 mPa·s	2 m	0.5 L	1.0 L
	~22.4	9.7×10 ⁻⁴	75	1.5×10 ⁻³						
	~15.0	3.0×10 ⁻⁴	50	6.8×10 ⁻⁴						
	~7.50	5.5×10 ⁻⁵	25	1.7×10 ⁻⁴						
IX-B045	~45.0	4.1×10 ⁻³	100	4.1×10 ⁻³	0.06 MPaA	500 mPa·s	1000 mPa·s	2 m	0.5 L	1.0 L
	~33.6	1.5×10 ⁻³	75	2.3×10 ⁻³						
	~22.4	4.6×10 ⁻⁴	50	1.0×10 ⁻³						
	~11.2	8.2×10 ⁻⁵	25	2.6×10 ⁻⁴						
IX-B007T (Inner diameter Ø4)	~7.50	1.3×10 ⁻²	100	1.3×10 ⁻²	0.07 MPaA	—	1000 mPa·s	1 m	0.5 L	1.0 L
	~5.60	4.7×10 ⁻³	75	7.5×10 ⁻³						
	~3.74	1.5×10 ⁻³	50	3.3×10 ⁻³						
	~1.87	2.7×10 ⁻⁴	25	8.4×10 ⁻⁴						
IX-B015T (Inner diameter Ø4)	~15.0	2.6×10 ⁻²	100	2.6×10 ⁻²	0.07 MPaA	100 mPa·s	1000 mPa·s	2 m	0.5 L	1.0 L
	~11.2	9.4×10 ⁻³	75	1.5×10 ⁻²						
	~7.50	2.9×10 ⁻³	50	6.6×10 ⁻³						
	~3.74	5.3×10 ⁻⁴	25	1.7×10 ⁻³						
IX-B030T (Inner diameter Ø8)	~30.0	1.1×10 ⁻²	100	1.1×10 ⁻²	0.06 MPaA	100 mPa·s	1000 mPa·s	2 m	0.5 L	1.0 L
	~22.4	3.9×10 ⁻³	75	6.2×10 ⁻³						
	~15.0	1.2×10 ⁻³	50	2.8×10 ⁻³						
	~7.50	2.2×10 ⁻⁴	25	6.9×10 ⁻⁴						
IX-B045T (Inner diameter Ø8)	~45.0	1.6×10 ⁻²	100	1.6×10 ⁻²	0.06 MPaA	500 mPa·s	1000 mPa·s	2 m	0.5 L	1.0 L
	~33.6	5.9×10 ⁻³	75	9.4×10 ⁻³						
	~22.4	1.9×10 ⁻³	50	4.2×10 ⁻³						
	~11.2	3.3×10 ⁻⁴	25	1.0×10 ⁻³						
IX-C060	~60	4.4×10 ⁻³	100	4.4×10 ⁻³	0.08 MPaA	1000 mPa·s		2 m	1.5 L	1.0 L
	~45	1.6×10 ⁻³	75	2.5×10 ⁻³						
	~30	4.9×10 ⁻⁴	50	1.1×10 ⁻³						
	~6	1.2×10 ⁻⁵	25	2.8×10 ⁻⁴						
IX-C150	~150	6.3×10 ⁻³	100	6.3×10 ⁻³	0.08 MPaA	1000 mPa·s		2 m	1.5 L	2.0 L
	~113	2.3×10 ⁻³	75	3.6×10 ⁻³						
	~75	7.0×10 ⁻⁴	50	1.6×10 ⁻³						
	~15	1.8×10 ⁻⁵	25	4.0×10 ⁻⁴						
IX-D150	~150	6.3×10 ⁻³	100	6.3×10 ⁻³	0.08 MPaA	300 mPa·s		2 m	1.5 L	2.0 L
	~113	2.3×10 ⁻³	75	3.6×10 ⁻³						
	~75	7.0×10 ⁻⁴	50	1.6×10 ⁻³						
	~15	1.8×10 ⁻⁵	25	4.0×10 ⁻⁴						
IX-D300	~300	7.2×10 ⁻³	100	7.2×10 ⁻³	0.08 MPaA	300 mPa·s		2 m	5.0 L	5.0 L
	~225	4.1×10 ⁻³	75	4.1×10 ⁻³						
	~150	8.0×10 ⁻⁴	50	1.8×10 ⁻³						
	~30	2.0×10 ⁻⁵	25	4.5×10 ⁻⁴						

• Pi : Inertia resistance per meter (based on clean water, suction line I.D. should be equal to the pump suction connection as a minimum.)

Calculate inertia resistance per meter using the following formula.

$Pi = Pid \text{ (or } Pis) \times \text{Specific gravity} \times \text{Pipe length (m)} \times (Pump \text{ I.D.} \div \text{Pipe I.D.})^2 (MPa)$

• Suction speed is set to 100% as the default setting. Reduce speed when handling viscous or gaseous liquids to prevent the possibility of cavitation.

Note the suction speed is used to control maximum discharge capacity.

e.g.) If suction speed is set to 75%, maximum discharge capacity is correspondingly reduced to 75% (45L/h for IX-C060, 113 L/h for IX-C150).

• Discharge capacity may be reduced from rated performance when pumping highly viscous liquids. Select a suitable pump size according to liquid viscosity.

Contact us if handling liquid viscosities of over 1000 mPa·s.(IX-C) Contact us if handling liquid viscosities of over 300 mPa·s.(IX-D)

• Applicable chamber: Capacities are based on Iwaki standard chamber sizes. Contact us for chamber materials.

• High accuracy: ±1% (This accuracy may not be met at flows below 1.0 L/h for the IX-C150S6. For model IX-C060S6, accuracy may not be met at flows below 0.4 L/h)

• Liquid temperature range: 0-50 °C(TC/TE type), 0-80 °C(S6 type) No viscosity change, Non freezing, No slurry

Accurate calibration may not be possible with liquid temperatures over 60°C and discharge pressures over 0.8MPa. For optimum accuracy, calibration must be performed below these parameters.

Points to be Observed in Pump Installation and Piping

IX Series Hi-Techno pumps are positive-displacement, reciprocating pumps.

Reciprocating pumps generate pulsation in the suction and discharge piping. Special consideration, (different from the ordinary centrifugal pumps), should be given to this point when planning the pump installation and piping.

• Prevention of pipe vibration

Discharge side inertial resistance $P_{id} < 0.1 \text{ MPa}$

• P_{id} : Inertial resistance on discharge side

Inertial resistance means the pulsated impact force generated by the flow just upon entering discharge stroke. It is a phenomenon particular to a reciprocating pump which is generated as a result of the sudden application of acceleration to the liquid in the discharge piping. The condition " $P_{id} < 0.1 \text{ MPa}$ " is given above as an approximate standard. If P_{id} becomes 0.1MPa or higher, vibration on the pipe is generated. So measures should be taken to cope with the influence of vibration on the pump, too.

Measures

1. Install pulsation prevention device (air chamber).
2. Enlarge the diameter and shorten the length of the discharge piping.

• Prevention of overfeeding

Pump differential pressure > Inertial resistance P_i

• The larger one of the suction side or the discharge side

Overfeeding means excessive flow of the liquid due to abnormal functioning of the check valve caused by pulsation of the liquid in the piping. Check carefully in case the differential pressure is low and in case the piping is too long even with the differential pressure value at 0.03 MPa.

Measures

1. Install air chamber.
2. Install back pressure valve

• Prevention of suction failure

$NPSH_a > NPSH_r$

$NPSH_a = P_a - P_v \pm P_{hs} - P_{is} \text{ * MPa}$

*Or P_{fs} : whichever is the larger. (NPSH : Net positive suction head)

If $NPSH_a$ is not sufficient, the pump may be damaged by the flow-break or cavitation generated under such conditions.

- **NPSH_a**: Absolute NPSH (MPa)
- **NPSH_r**: Required NPSH (value particular to the pump) (MPa)
- **P_a**: Absolute pressure onto the tank liquid surface (MPa)
- **P_v**: Liquid vapor pressure (MPa)
- **P_{hs}**: Pressure caused by the height of the suction side (MPa)
(Flooded suction : +, Negative suction : -)
- **P_{is}**: Inertial resistance on the suction side (MPa)
- **P_{fs}**: Piping resistance on the suction side (MPa)

See the table below for NPSH_r, inertia resistance(P_i) and applicable chambers.



Compressed air dissolves in solutions in a chamber. Supply air into the chamber periodically, or its performance may reduce.
It takes longer time for air to be compressed enough to deliver liquid as a flow rate gets lower.

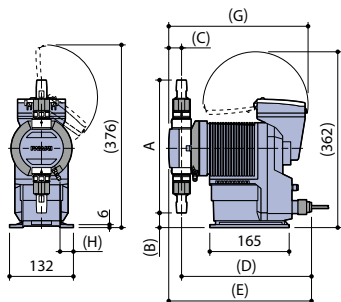
• Pump/Piping protection

Install a relief valve to protect the pump and piping from overpressure.

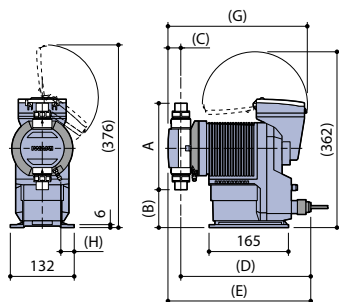


Dimension in mm

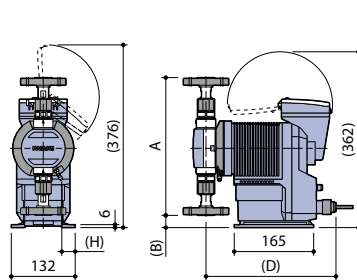
IX-B (TC/TE) Connection : R/N (Thread R/NPT)



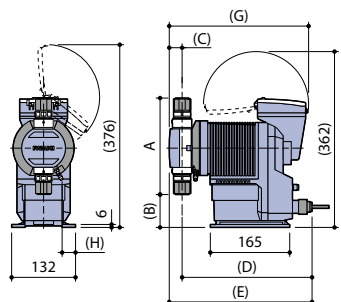
IX-B (TC/TE) Connection : G (Thread G)



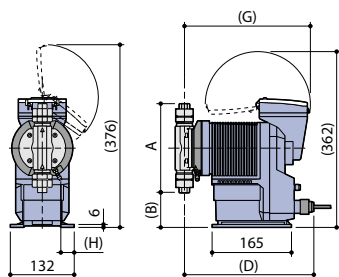
IX-B (TC/TE) Connection : F (Flange)



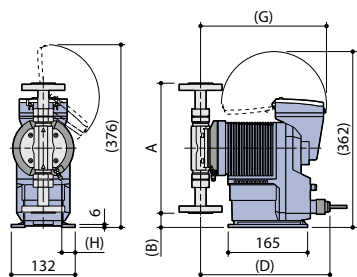
IX-B (TC/TE) Connection : T (Tube)



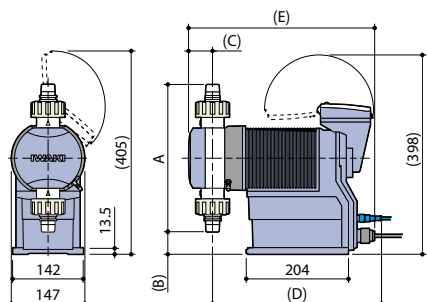
IX-B (S6) Connection : R/N (Thread Rc/FNPT)



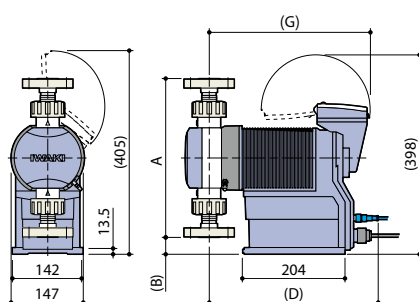
IX-B (S6) Connection : F (Flange)



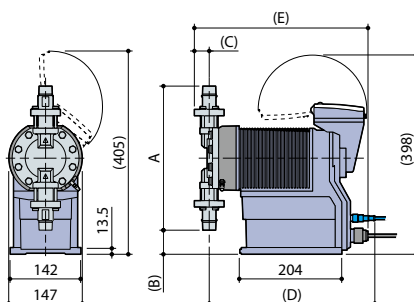
IX-C (TC/TE) Connection : R/N (Thread R/NPT)



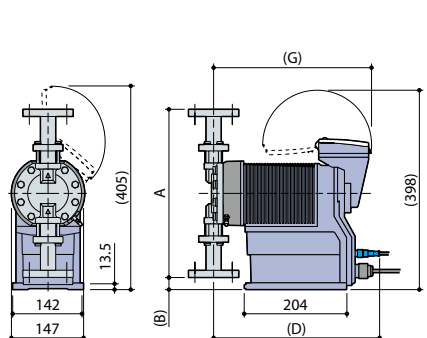
IX-C (TC/TE) Connection : F (Flange)



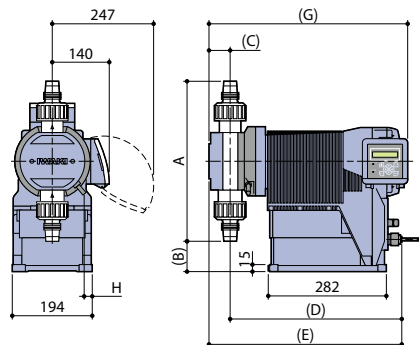
IX-C (S6) Connection : R/N (Thread R/NPT)



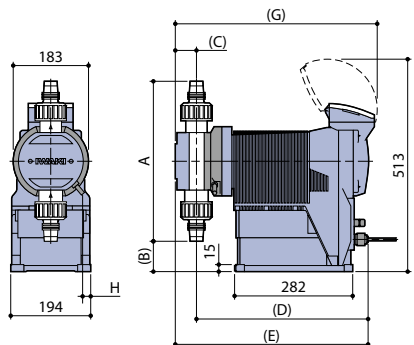
IX-C (S6) Connection : F (Flange)



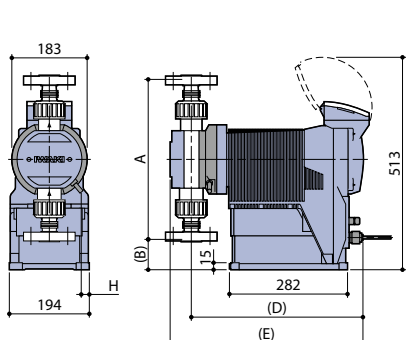
IX-D Connection : Common to all types,
Controller position : RF (Right face)



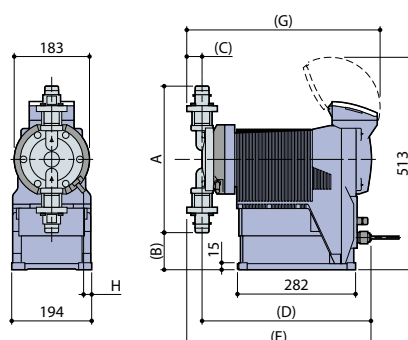
IX-D (TC/TE) Connection : R/N (Thread R/NPT)
Controller position : TB (Top back)



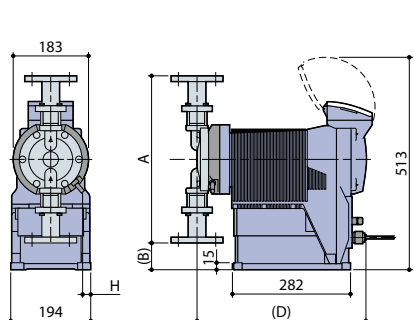
IX-D (TC/TE) Connection : F (Flange)
Controller position : TB (Top back)



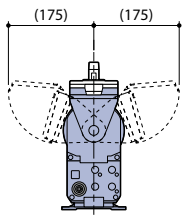
IX-D (S6) Connection : R/N (Thread R/NPT)
Controller position : TB (Top back)



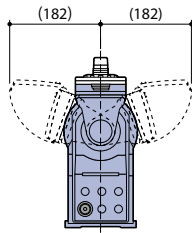
IX-D (S6) Connection : F (Flange)
Controller position : TB (Top back)



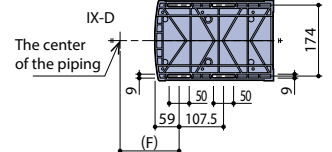
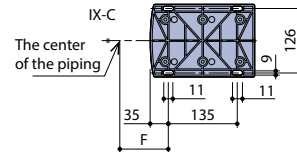
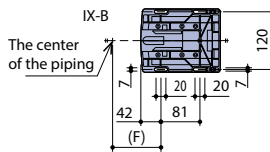
Common to IX-B



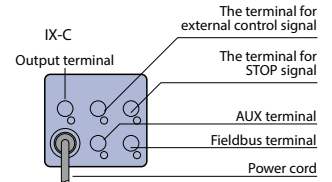
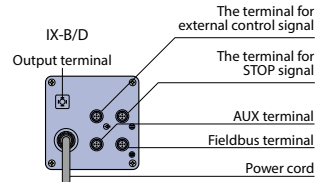
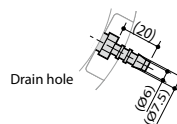
Common to IX-C



Common to IX series / Pump base



Common to all IX series / others



	Model	Liq-uid-end material	Connection	A	B	C	D	E	F	G	H
IX-B	IX-B007	TC/TE	R/N : Thread (R/N)	240	45	24.3	267	291	94.5	284	29
			G : Thread (G)	146	92						
			F : Flange	250	40						
			T : Tube	168	81						
	IX-B015	S6	R/N : Thread (Rc/FNPT)	161	82	—	275	—	94.5	260	29
			F □ : Flange	247	39						
			R/N : Thread (R/N)	240	41						
			G : Thread (G)	155	88						
	IX-B030 IX-B045	TC/TE	F : Flange	259	36	—	267	291	94.5	284	29
			T : Tube	177	77						
			R/N : Thread (Rc/FNPT)	161	82						
			F □ : Flange	247	39						
	IX-B030 IX-B045	S6	R/N : Thread (R/N)	273	30	26.4	270	296	97.5	289	28
			G : Thread (G)	179	77						
			F : Flange	283	25						
			T : Tube	201	66						
	IX-B030 IX-B045	S6	R/N : Thread (Rc/FNPT)	183	72	—	278	—	97	262	28
			F □ : Flange	269	29						

	Model	Liq-uid-end material	Connection	A	B	C	D	E	F	G	H
IX-C	IX-C060	TC/TE	R/N : Thread (R/NPT)	325	30	35	337	360	—	322	—
			F : Flange	335	25	—		—			
	IX-C150	S6	R/N : Thread (R/NPT)	240	72	25	337	348	—	321	—
			F □ : Flange	270	57	—		—			
	IX-C150	TC/TE	R/N : Thread (R/NPT)	294	45	47	337	371	—	321	—
			F □ : Flange	317	34	—		—			
	IX-C150	S6	R/N : Thread (R/NPT)	287	48	30	332	348	—	315	—
			F □ : Flange	335	24	—		—			

	Model	Liq-uid-end material	Connection / Controller position	A	B	C	D	E	F	G	H
IX-D	IX-D150	TC/TE	R/N : Thread (R/NPT) / RF : Right face	317	108	42	409	450	144	465	—
			R/N : Thread (R/NPT) / TB : Top back							472	
			F □ : Flange / RF : Right face							—	
			F □ : Flange / TB : Top back							—	
	IX-D150	S6	R/N : Thread (R/NPT) / RF : Right face	315	108	30	401	431	136	453	—
			R/N : Thread (R/NPT) / TB : Top back							460	
			F □ : Flange / RF : Right face							—	
			F □ : Flange / TB : Top back							—	
	IX-D300	TC/TE	R/N : Thread (R/NPT) / RF : Right face	384	74	52	415	467	151	482	—
			R/N : Thread (R/NPT) / TB : Top back							489	
			F □ : Flange / RF : Right face							—	
			F □ : Flange / TB : Top back							—	
	IX-D300	S6	R/N : Thread (R/NPT) / RF : Right face	355	88	37	408	445	143	460	—
			R/N : Thread (R/NPT) / TB : Top back							467	
			F □ : Flange / RF : Right face							—	
			F □ : Flange / TB : Top back							—	

IWAKI CO., LTD. 6-6 Kanda-Sudacho 2-chome Chiyoda-ku Tokyo 101-8558 Japan TEL : (81)3 3254 2935 FAX : 3 3252 8892

IWAKI has global net work.
Please find your distributor location at

www.iwakupumps.jp

European Headquarter	IWAKI Europe GmbH	TEL: (49)2154 9254 0	FAX: (49)2154 9254 48	U.S.A.	IWAKI America Inc.	TEL: (1)508 429 1440	FAX: (1)508 429 1386
Germany	IWAKI Europe GmbH	TEL: (49)2154 9254 50	FAX: (49)2154 9254 55	Brazil	IWAKI Do Brasil Comercio De Bombas Hidraulicas LTDA.	TEL: (55)19 3244 5900	FAX: (55)19 3244 5900
The Netherlands (Netherlands Branch)	IWAKI Europe GmbH	TEL: (31)74 2420011	FAX: (49)2154 9254 48	China (Shanghai)	IWAKI Pumps (Shanghai) Co., Ltd.	TEL: (86)21 6272 7502	FAX: (86)21 6272 6929
Italy (Italy Branch)	IWAKI Europe GmbH	TEL: (39)0445 561219	FAX: (39)0445 569088	China (Hong Kong)	IWAKI Pumps Co., Ltd.	TEL: (852)2607 1168	FAX: (852)2607 1000
Spain (Spain Branch)	IWAKI Europe GmbH	TEL: (34)934 741 638	FAX: (34)934 741 638	China (Guangzhou)	GFTZ IWAKI Engineering & Trading Co., Ltd.	TEL: (86)20 84350603	FAX: (86)20 84359181
Poland (East Europe Branch)	IWAKI Europe GmbH	TEL: (48)12 347 0755	FAX: (48)12 347 0900	China (Shenzhen)	IWAKI Pumps (Shenzhen) Co., Ltd.	TEL: (86)0755 8656 3696	
Denmark	IWAKI Nordic A/S	TEL: (45)48 242345		Singapore	IWAKI Singapore Pte Ltd.	TEL: (65)6316 2028	FAX: (65)6316 3221
Finland	IWAKI Suomi Oy	TEL: (358)10 201 0490		Indonesia (Indonesia Office)	IWAKI Singapore Pte Ltd.	TEL: (62)21 6906606	FAX: (62) 21 6906612
Norway	IWAKI Norge AS	TEL: (47)23 38 49 00		Malaysia	IWAKI SDN. BHD.	TEL: (60)3 7803 8807	FAX: (60)3 7803 4800
Sweden	IWAKI Sverige AB	TEL: (46)8 511 72900		Korea	IWAKI Korea Co.,Ltd.	TEL: (82)2 6238 4800	FAX: (82)2 6238 4801
Belgium	IWAKI Belgium N.V.	TEL: (32)13 670200	FAX: (32)13 672030	Taiwan	IWAKI Pumps Taiwan Co., Ltd.	TEL: (886)2 8227 6900	FAX: (886)2 8227 6818
France	IWAKI France S.A.	TEL: (33)1 69 63 33 70	FAX: (33)1 64 49 92 73	Thailand	IWAKI (Thailand) Co.,Ltd.	TEL: (66)2 322 2471	FAX: (66)2 322 2477
				Australia	IWAKI Pumps Australia Pty Ltd.	TEL: (61)2 9899 2411	FAX: (61)2 9899 2421

() 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.

 **Legal attention related to export.**

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.

The posting and copying from this catalogue without permission is not accepted firmly.