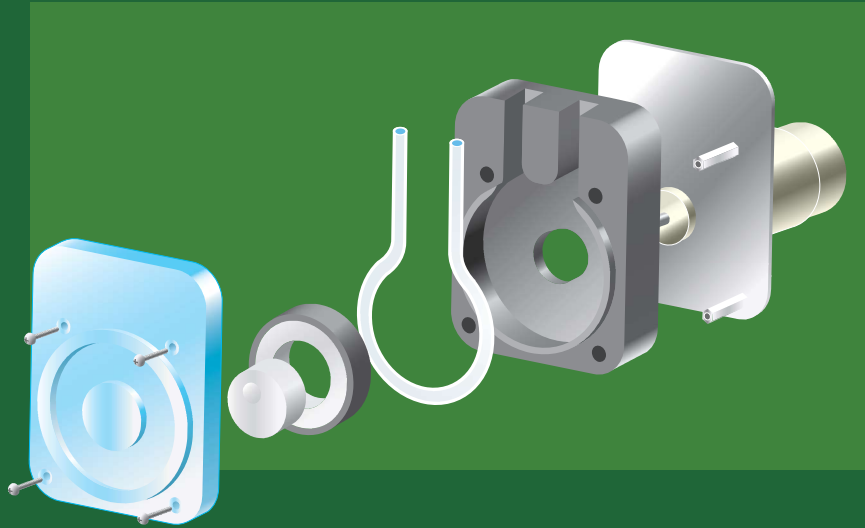


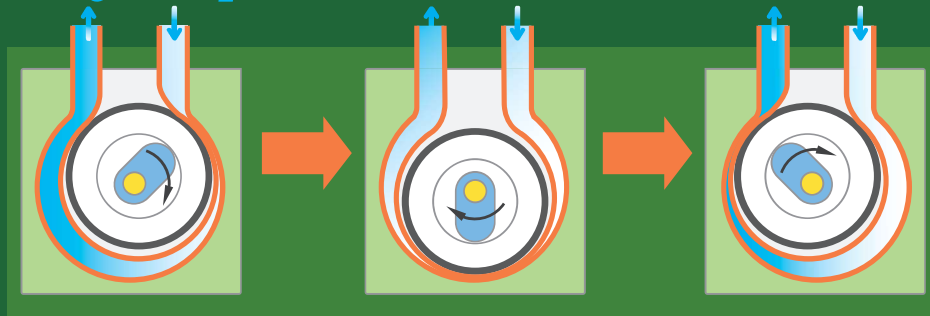
Ring Pump[®] product brochure

Advanced peristaltic pump technology
made available by AQUATECH.

Ring Pump[®] Its simple designing is gentle to tubing !!



Ring Pump[®] Its structure is so innovative !!



Ring Pump[®] Its application is unlimited !!



Ring Pump[®]
Aquatech Co., Ltd.

Aquatech Co., Ltd.

2-1-13, Ono, Daito City, Osaka 574-0042, Japan
Phone: 81-72-806-3210 Fax: 81-72-806-3211

E-mail info@ringpump-aquatech.co.jp
URL <https://ringpump-aquatech.co.jp>






Contact our export business agent

TAKASAGO ELECTRIC, INC.




66, KAKITSUBATA, NARUMI-CHO, MIDORI-KU, NAGOYA, 458-8522 JAPAN
Phone 81-52-891-2301 Fax 81-52-891-7386
E-mail: info@takasago-elec.co.jp URL: <http://www.takasago-fluidic.com>

Ring Pump Lineup




Standard type [5mL–1600mL/min]

Type	Flow rate (mL/min)	Tubing	Motor/Power	Appearance/Dimension (mm)
RP-M Series DC Power type	5 30 10 50 20 65	●Silicone ●PharMed ●TM-15 ●SWFT	DC geared motor DC24V	 L: 74.5 W: 74 D: Depend on motor
RP-M Series AC Power type	5 15 20 35	●Silicone ●PharMed ●SWFT	AC synchronous motor AC100V	 L: 74.5 W: 74 D: 48
RP-K II Series Tough & Economical	50 200 100 250 150	●Silicone ●Norprene ●TM-15	DC geared motor DC24V	 L: 117.7 W: 79 D: Depend on motor
RP-S Series Big volume & Longlife	500 700 800	●Norprene ●PhaarMed ●TM-15	DC geared motor DC24V	 L: 126 W: 80.6 D: Depend on motor
RP-2S Series Big volume & Longlife	1000 1400 1600	●Norprene ●PharMed ●TM-15	DC geared motor DC24V	 L: 126 W: 80.6 D: Depend on motor
RP-W II Series Tough & Longlife	350 500	●PharMed	DC geared motor DC24V	 L: 148.3 W: 82 D: 143.5



Compact type [Motor-built-in box type]

Type	Flow rate (mL/min)	Tubing	Motor/Power	Appearance/Dimension (mm)
RP-G II Series Small Box type	10 25 12 40 17 45 20	●Silicone ●Norprene ●PharMed ●TM-15	DC geared motor DC12V,24V	 L: 47.5 W: 74 D: 27
RP-2G II Series Small Box type(double)	20 50 25 70 30 80 35	●Silicone ●Norprene ●PharMed ●TM-15	DC geared motor DC12V,24V	 L: 47.5 W: 74 D: 27
RP-G III Series Box type small flow rate	2.5 8 3.2 11 5 6.5	●Silicone ●PharMed ●Fluran	DC geared motor DC3V,6V	 L: 44 W: 65 D: 22.5

Super small type [0.2mL – 2.2mL/min]

Type	Flow rate (mL/min)	Tubing	Motor/Power	Appearance/Dimension (mm)
RP-Q,QX Series Super small type	RP-Q: 0.45 0.20 RP-QX: 1.10 0.50	●Silicone ●Norprene ●SWFT	DC geared motor DC3V	 L: 15.4 W: 11.9 D: 31.5
RP-Q II,Q II X RP-Q III,Q III X Series Pump head replaceable type	RP-Q II : 0.45 0.9 RP-Q II X: 1.2 2.2 RP-Q III : 0.45 0.9 RP-Q III X: 1.2 2.2	●Silicone ●SWFT	DC geared motor DC3V	 L: 17.0 W: 15.0 (24.3) D: 32.7 () QIII, QIII X
RP-C III Series Pump head replaceable type	1.6	●Silicone ●PharMed ●Fluran	DC geared motor DC3V-5V	 L: 44.5 W: 26 D: 33.4

Micro type [nano L to μL/min]

Type	Flow rate (mL/min)	Tubing	Motor/Power	Appearance/Dimension (mm)
RP-TX Series Pump head replaceable type	4 μL-1,100 μL/min	●Silicone ●Olefne	Stepper motor DC 2.6 - 3.0V	 L: 33 W: 12 D: 21.5
RP-HX Series Pump head replaceable type	30nL-40 μL/min	●Silicone	Stepper motor DC 3.0V	 L: 32 W: 20 D: 46

Ring Pump[®]

RP-M Series (DC type)



Features

This is the only series among our product lineup that you can select DC or AC. You have wide range of application.

Examples of application

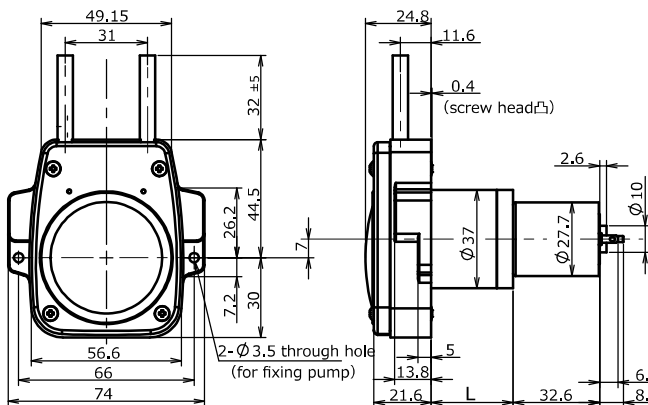
Automatic washing machine, Electrolytic water conditioner, Air pressure adjuster, Automatic car washer and many other applications for detergent supply etc.

Main specifications

Flow rate (mL/min) ※	5 10 20 30 50 65
Tubing	Silicone/Pharmed/TM-15/SWFT
Motor/Power source	DC 24V
Material of main parts	Base : ABS Cover : PP
Weight (for reference)	Approx. 260g

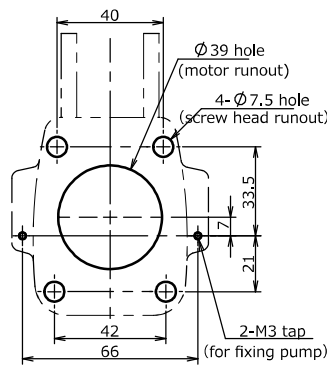
※ Flow rate is adjusted by selection of motor and inner diameter of tubing.

【Outline view】



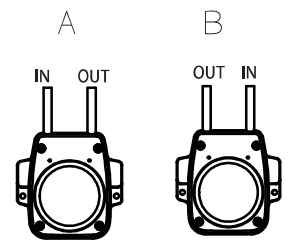
※L dimension = Refer to the table below.

【Mounting plate view】



Be sure that the motor shaft position is horizontal.

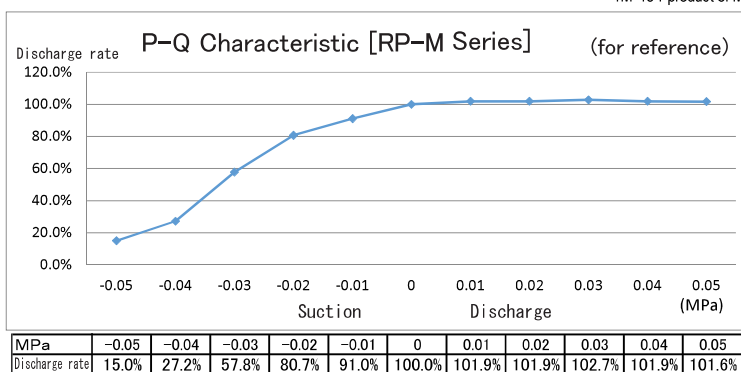
【Flow direction】



Model Lineup

Model Lineup	Voltage (DCV)	Flow rate (mL/min)	Tubing		Remarks		
			Type	ID/OD (mm)	Motor Rotation	Flow Direction	※ L Dimension
RP-M02S-5Z-DC24V	24	5	Silicone (S)	2 X 4	CW	A	30.8
RP-M02F-5Z-DC24V	24	5	PharMed (F)	2 X 4	CW	A	30.8
RP-M02W-5Z-DC24V	24	5	TM-15 (W)	2 X 4	CW	A	30.8
RP-M03S-10Z-DC24V	24	10	Silicone (S)	3 X 5	CW	A	30.8
RP-M03F-10Z-DC24V	24	10	PharMed (F)	3 X 5	CW	A	30.8
RP-M03W-10Z-DC24V	24	10	TM-15 (W)	3 X 5	CW	A	30.8
RP-M03S-20Z-DC24V	24	20	Silicone (S)	3 X 5	CW	A	30.8
RP-M03F-20Z-DC24V	24	20	PharMed (F)	3 X 5	CW	A	30.8
RP-M03W-20Z-DC24V	24	20	TM-15 (W)	3 X 5	CW	A	30.8
RP-M03S-30Z-DC24V	24	30	Silicone (S)	3 X 5	CW	A	30.8
RP-M03F-30Z-DC24V	24	30	PharMed (F)	3 X 5	CW	A	30.8
RP-M03W-30Z-DC24V	24	30	TM-15 (W)	3 X 5	CW	A	30.8
RP-M04S-50Z-DC24V	24	50	Silicone (S)	4 X 6	CCW	B	28.3
RP-M04F-50Z-DC24V	24	50	PharMed (F)	4 X 6	CCW	B	28.3
RP-M04W-50Z-DC24V	24	50	TM-15 (W)	4 X 6	CCW	B	28.3
RP-M04C-50Z-DC24V	24	50	SWFT (C)	3.9 X 5.8	CCW	B	28.3
RP-M04F-70Z-DC24V	24	65	PharMed (F)	4 X 6	CCW	B	28.3
RP-M04W-70Z-DC24V	24	65	TM-15 (W)	4 X 6	CCW	B	28.3
RP-M04C-70Z-DC24V	24	65	SWFT (C)	3.9 X 5.8	CCW	B	28.3

PharMed/SWFT: product of Saint-Gobain SA
TM-15: product of Mitsubishi Co. Ltd.



※ Variable by material or ID of tubing.

Ring Pump®

RP-M Series (AC type)



Features

This is the only series among our product lineup that you can select DC or AC. You have wide range of application.

Examples of application

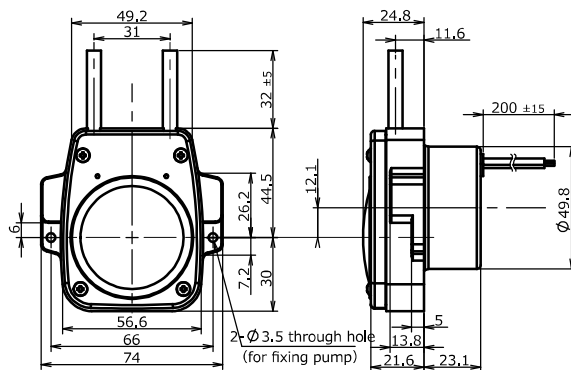
Automatic washing machine, Electrolytic water conditioner, Air pressure adjuster, Automatic car washer and many other applications for detergent supply etc.

Main specifications

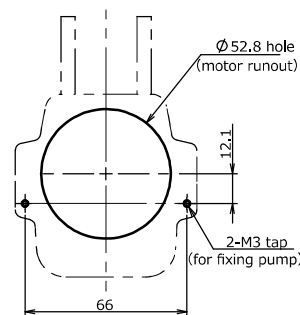
Flow rate (mL/min) ※	5 15 20 35
Tubing	Silicone/Pharmed/SWFT
Motor/Power source	AC 100V
Material of main parts	Base : ABS Cover : PP
Weight (for reference)	Approx. 200g

※ Flow rate is adjusted by selection of motor and inner diameter of tubing.

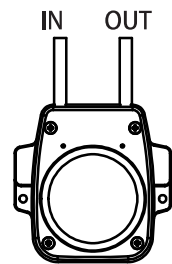
【Outline view】



【Mounting plate view】



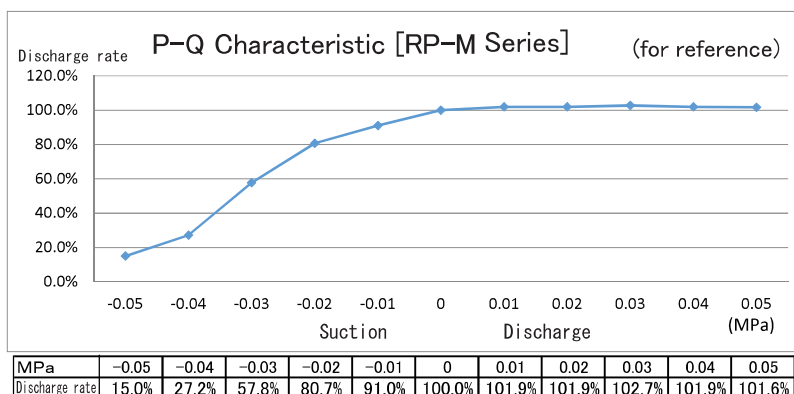
【Flow direction】



Model Lineup

Model Lineup	Voltage (DC/V)	Flow rate (mL/min)	Tubing		Remarks
			Type	ID/OD (mm)	
RP-M02S-5Z-AC100V	100	5	Silicone (S)	2 X 4	CW
RP-M02F-5Z-AC100V	100	5	PharMed (F)	2 X 4	CW
RP-M03S-15Z-AC100V	100	15	Silicone (S)	3 X 5	CW
RP-M03F-15Z-AC100V	100	15	PharMed (F)	3 X 5	CW
RP-M04S-20Z-AC100V	100	20	Silicone (S)	4 X 6	CW
RP-M04F-20Z-AC100V	100	20	PharMed (F)	4 X 6	CW
RP-M04C-20Z-AC100V	100	20	SWFT (C)	3.9 X 5.8	CW
RP-M04S-35Z-AC100V	100	35	Silicone (S)	4 X 6	CW
RP-M04F-35Z-AC100V	100	35	PharMed (F)	4 X 6	CW
RP-M04C-35Z-AC100V	100	35	SWFT (C)	3.9 X 5.8	CW

PharMed/SWFT: product of Saint-Gobain SA



※ Variable by material or ID of tubing.

Ring Pump®

RP-K II Series



Features

- Simple design and tough pump.
- Since we have wide range of flow level, wide range of application can be expected.

Examples of application

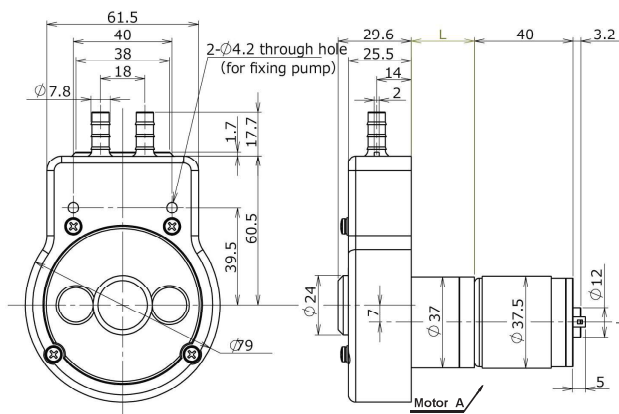
Automatic washing machine
Floor washer, Medical device and many applications for detergent supply etc.

Main specifications

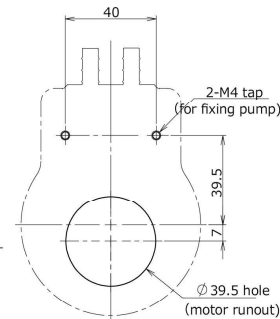
Flow rate (mL/min) ※	50 100 150 200 250
Tubing	Silicone/Norprene/TM-15
Motor/Power source	DC24V
Material of main parts	Base : Steel Case:PP
Weight (for reference)	Approx. 400g

※ Flow rate is adjusted by selection of motor and inner diameter of tubing.

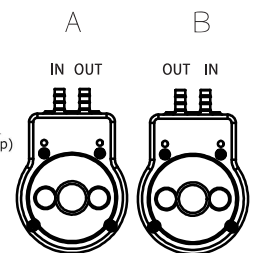
【Outline view】



【Mounting plate view】



【Flow direction】



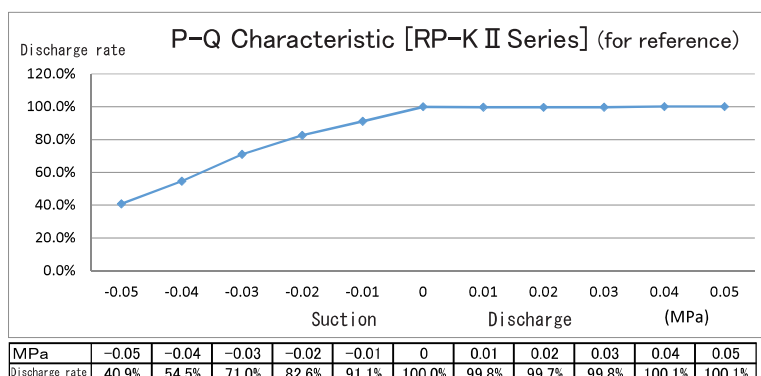
※L dimension = Refer to the table below.

Be sure that the motor shaft position is horizontal.

Model Lineup

Model Lineup	Voltage (DC/V)	Flow rate (mL/min)	Tubing		Remarks			
			Type	ID/OD (mm)	Motor	※ L Measure	Motor Rotation	Flow Direction
RP-K II 05S-50Z-DC24V	24	50	Silicone (S)	4.8 X 8.0	A	28.1	CW	B
RP-K II 05N-50Z-DC24V	24	50	Norprene (N)	3/16, 5/16	A	28.1		
RP-K II 05W-50Z-DC24V	24	50	TM-15 (W)	4.8 X 7.9	A	28.1		
RP-K II 06S-100Z-DC24V	24	100	Silicone (S)	6.5 X 9.9	B	28.1		
RP-K II 06N-100Z-DC24V	24	100	Norprene (N)	1/4, 3/8	B	28.1		
RP-K II 06W-100Z-DC24V	24	100	TM-15 (W)	1/4, 3/8	B	28.1		
RP-K II 06N-150Z-DC24V	24	150	Norprene (N)	1/4, 3/8	A	25.6	CCW	A
RP-K II 06W-150Z-DC24V	24	150	TM-15 (W)	1/4, 3/8	A	25.6		
RP-K II 06N-200Z-DC24V	24	200	Norprene (N)	1/4, 3/8	A	25.6		
RP-K II 06W-200Z-DC24V	24	200	TM-15 (W)	1/4, 3/8	A	25.6		
RP-K II 06N-250Z-DC24V	24	250	Norprene (N)	1/4, 3/8	A	25.6		
RP-K II 06W-250Z-DC24V	24	250	TM-15 (W)	1/4, 3/8	A	25.6		

Norprene: product of Saint-Gobain SA
TM-15: product of Mitsubishi Co. Ltd.



※ Variable by material or ID of tubing.

Ring Pump®

RP-S Series



Features

- Biggest flow rate pump among our lineup.
You can have double flow rate with RP-2S series which combines two RP-S.

Examples of application

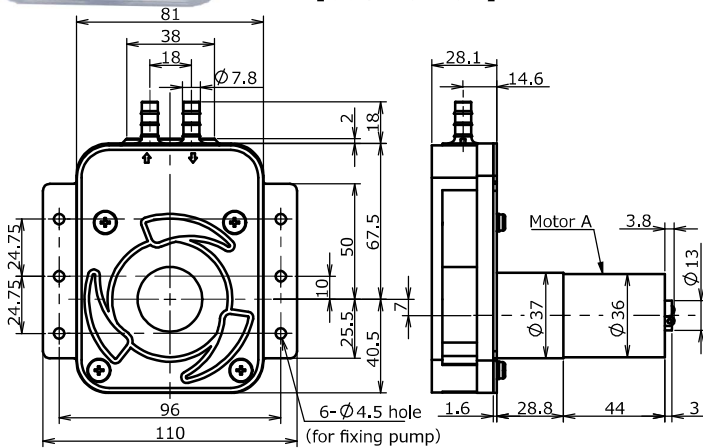
Automatic washing machine
Automatic cup coffee vender
Floor washer, Hand washer
Applications for detergent supply etc.

Main specifications

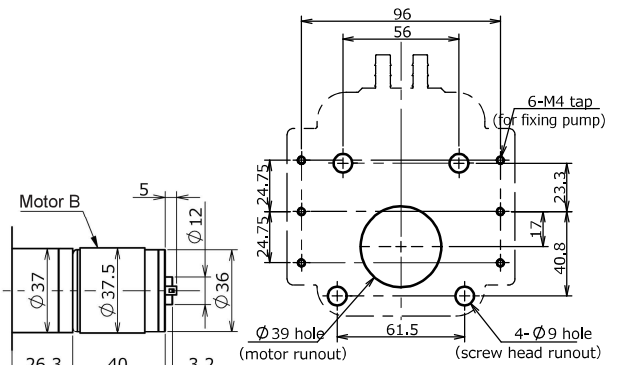
Flow rate (mL/min) ※	500 700 800
Tubing	Norprene/PharMed/TM-15
Motor/Power source	DC24V
Material of main parts	Base:NBR Cover:PP
Weight (for reference)	Approx. 650g

※ Flow rate is adjusted by selection of motor and inner diameter of tubing.

[Outline view]



[Mounting plate view]



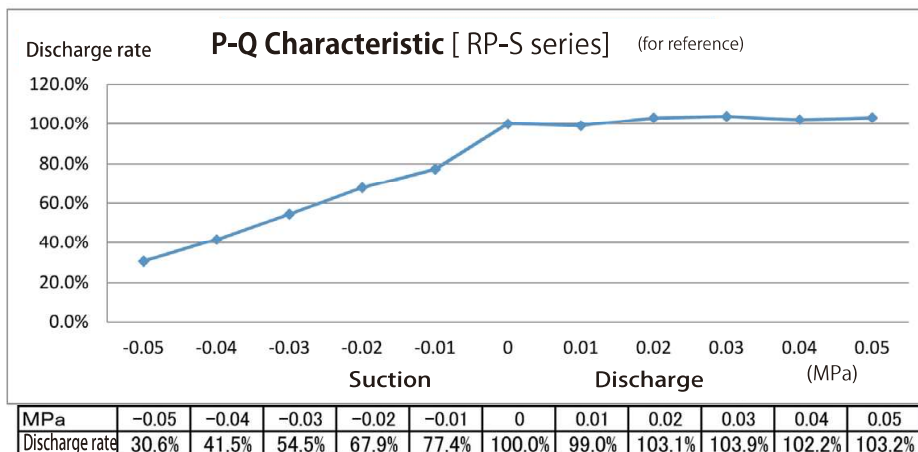
Flow direction(IN/OUT)is marked on the product.

Be sure that the motor shaft position is horizontal.

Model Lineup

Model Lineup	Voltage (DC/V)	Flow rate (mL/min)	Tubing		Remarks	
			Type	ID/OD (mm)	Motor	Motor Rotation
RP-S06N-500Z-DC24V	24	500	Norprene (N)	1/4 , 3/8	A	CW
RP-S06F-500Z-DC24V	24	500	PharMed (F)	1/4 , 3/8	A	CW
RP-S06W-500Z-DC24V	24	500	TM-15 (W)	1/4 , 3/8	A	CW
RP-S06N-700Z-DC24V	24	700	Norprene (N)	1/4 , 3/8	B	CW
RP-S06F-700Z-DC24V	24	700	PharMed (F)	1/4 , 3/8	B	CW
RP-S07W-800Z-DC24V	24	800	TM-15 (W)	7.0×10.0	B	CW

PharMed/Norprene: product of Saint-Gobain SA
TM-15 : product of Mitsubishi Co. Ltd.



※ Variable by material or ID of tubing.

Ring Pump®

RP-2S Series



Features

- Biggest flow rate pump among our lineup.
Double flow rate pump of RP-S for it combines two RP-S pump.

Examples of application

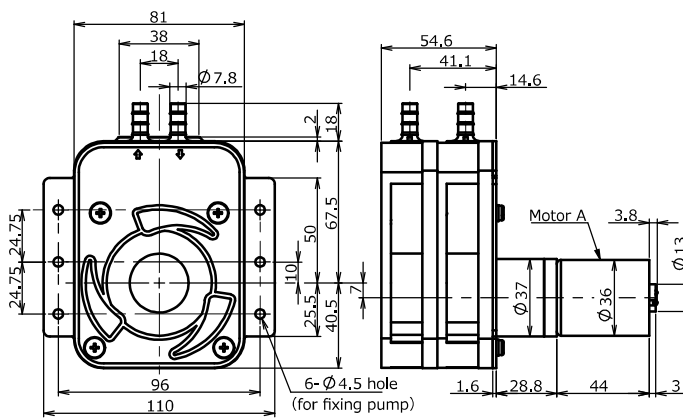
Automatic washing machine
Automatic cup coffee vender
Floor washer, Hand washer
Applications for detergent supply etc.

Main specifications

Flow rate (mL/min) ※	1000 1400 1600
Tubing	Norprene/PharMed/TM-15
Motor/Power source	DC24V
Material of main parts	Base:NBR Cover:PP
Weight (for reference)	Approx. 900g

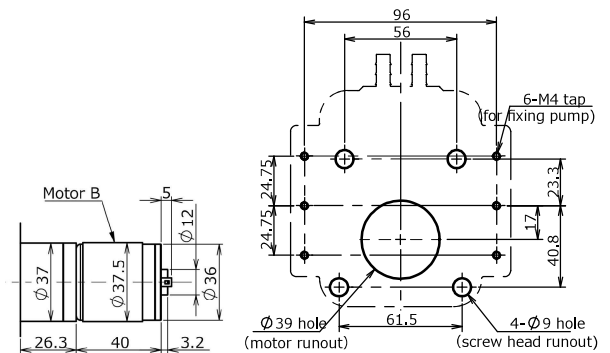
※ Flow rate is adjusted by selection of motor and inner diameter of tubing.

[Outline view]



Flow direction (IN/OUT) is marked on the product.

[Mounting plate view]

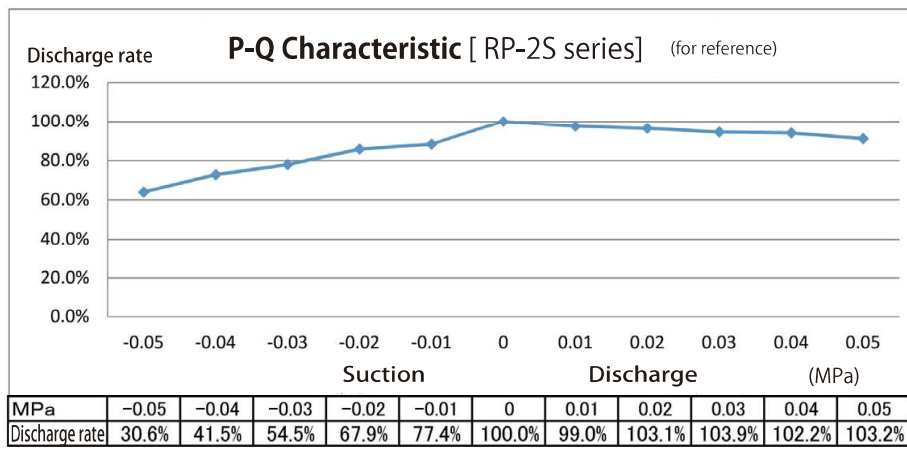


Be sure that the motor shaft position is horizontal.

Model Lineup

Model Lineup	Voltage (DC/V)	Flow rate (mL/min)	Tubing		Remarks	
			Type	ID/OD (mm)	※ L Measure	Motor Rotation
RP-2S06N-1000Z-DC24V	24	1000	Norprene (N)	1/4, 3/8	28.8	CW
RP-2S06F-1000Z-DC24V	24	1000	PharMed (F)	1/4, 3/8	28.8	CW
RP-2S06W-1000Z-DC24V	24	1000	TM-15 (W)	1/4, 3/8	28.8	CW
RP-2S06N-1400Z-DC24V	24	1400	Norprene (N)	1/4, 3/8	26.3	CW
RP-2S06F-1400Z-DC24V	24	1400	PharMed (F)	1/4, 3/8	26.3	CW
RP-2S07W-1600Z-DC24V	24	1600	TM-15 (W)	7.0 × 10.0	26.3	CW

PharMed/Norprene: product of Saint-Gobain SA
TM-15: product of Mitsubishi Co. Ltd.



※ Variable by material or ID of tubing.

Ring Pump®

RP-W II Series



Features

- Toughest and long life pump among lineup of our ring pump.

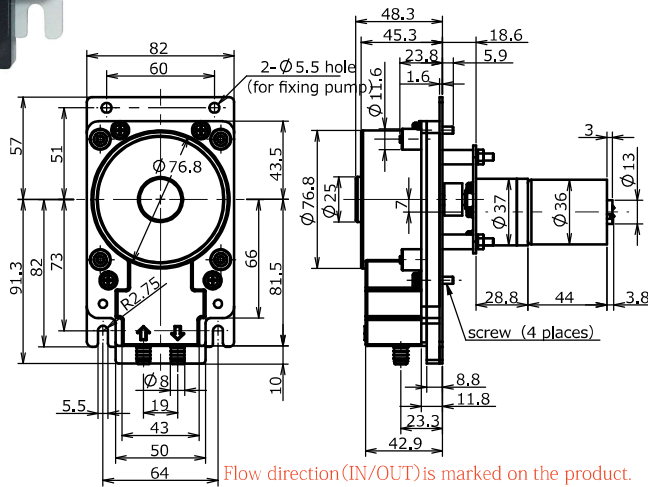
Examples of application

Big sized printers and many other applications where toughness and long life is required.

Main specifications

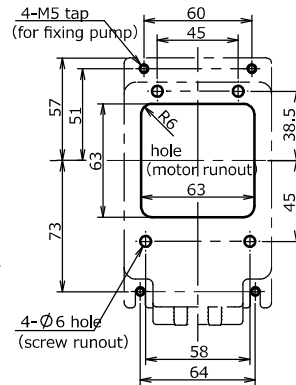
Flow rate (mL/min) ※	350 500
Tubing	PharMed
Motor/Power source	DC24V
Material of main parts	Base: PBT Cover: ABS
Weight (for reference)	Approx. 850g

【Outline view】



Flow direction(IN/OUT)is marked on the product.

【Mounting plate view】

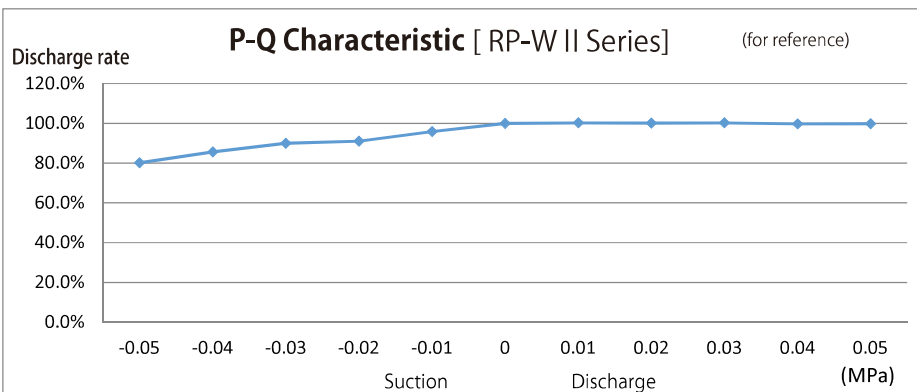


Be sure that the motor shaft position is horizontal.

Model Lineup

Model Lineup	Voltage (DC/V)	Flow rate (mL/min)	Tubing		Remarks
			Type	ID/OD (mm)	
RP-W II 04 F -350Z-DC24V	24	350	PharMed(F)	4.0×8.0	CW
RP-W II 04F-500Z-DC24V	24	500	PharMed(F)	4.0×8.0	CW

PharMed : product of Saint-Gobain SA



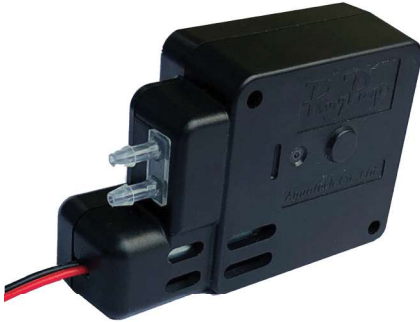
※ Variable by material or ID of tubing.

MPa	-0.05	-0.04	-0.03	-0.02	-0.01	0	0.01	0.02	0.03	0.04	0.05
Discharge rate	80.2%	85.6%	89.9%	91.0%	95.9%	100.0%	100.3%	100.1%	100.3%	99.7%	99.9%

New !

Ring Pump®

RP-GIII Series



Features

- Compact box shape makes it possible to pile up plural GIII pumps.
- Flow rate range is rather small and it is in near side to one for series of RP-Q and RP-CIII.

Examples of application

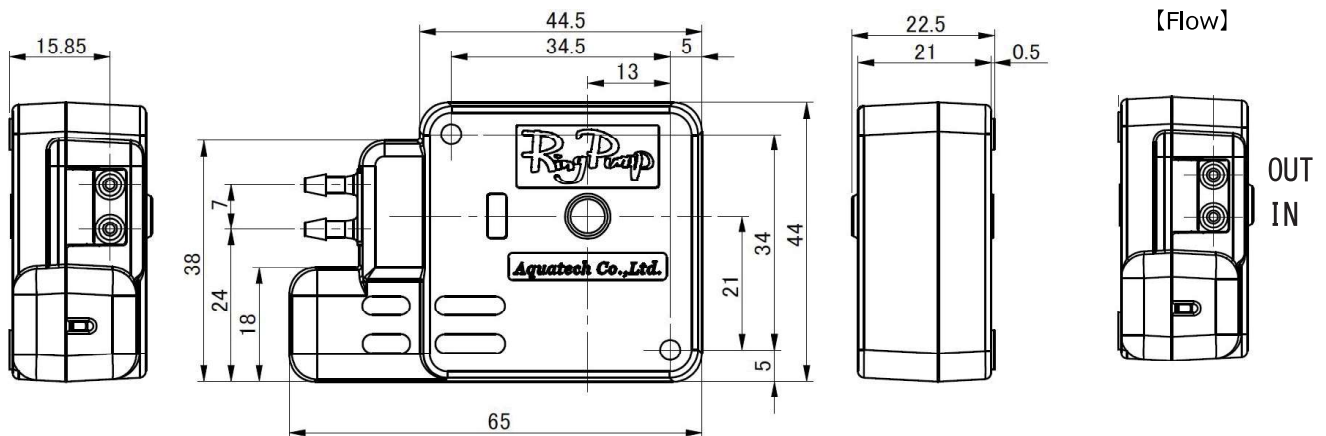
Automatic washing machine
Electrolytic water conditioner
Applications for detergent supply etc.

Main specifications

Flow rate (mL/min) ※	2.5 - 11 (see Model Lineup)
Tubing	Silicone / PharMed / Fluran
Motor/Power source	DC 3 - 6V
Material of main parts	Case: PBT
Weight (for reference)	Approx. 62g

※ Flow rate can be adjustable by power voltage.

【Outline view】



※ Lead wire should not face downward.

Model Lineup

Model Lineup	Voltage (DC/V)	Flow rate (mL/min)	Tubing		Remarks
			Type	ID/OD(mm)	Rotation
RP-GIII02 S -12Z-DC6V	6	12	Silicone (S)	2 X 4	CW
RP-GIII02 S -5Z-DC3V	3	5	Silicone (S)	2 X 4	CW
RP-GIII1.6F-6P5Z-DC6V	6	6.5	PharMed (F)	1.6 X 3.2	CW
RP-GIII1.6F-2P5Z-DC3V	3	2.5	PharMed (F)	1.6 X 3.2	CW
RP-GIII1.6R-8Z-DC6V	6	8	Fluran (R)	1.6 X 3.2	CW
RP-GIII1.6R-3P2Z-DC3V	3	3.2	Fluran (R)	1.6 X 3.2	CW

PharMed / Fluran : Product of Saint-Gobain SA.

Ring Pump®

RP-Q&QX Series



Features

- Very small and light weight peristaltic pump became available by Ring Pump technology and applications are increasing. It was used by NASA in the tests in the space.

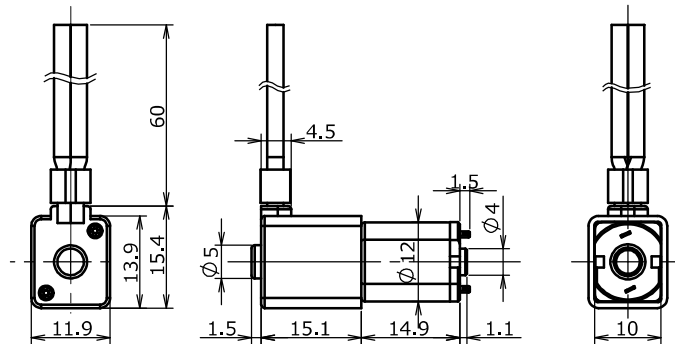
Examples of application

Analytical instruments, medical devices, fuel cell and many other usage where micro-fluidic control is needed.

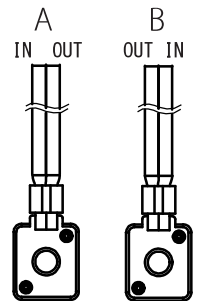
Main specifications

Flow rate (mL/min) ※	Q: 0.45 0.20 QX: 1.1 0.5
Tubing	Silicone/Norprene/SWFT
Motor/Power source	DC3V
Material of main parts	Case: PP
Weight (for reference)	Approx. 11g

【Outline view】



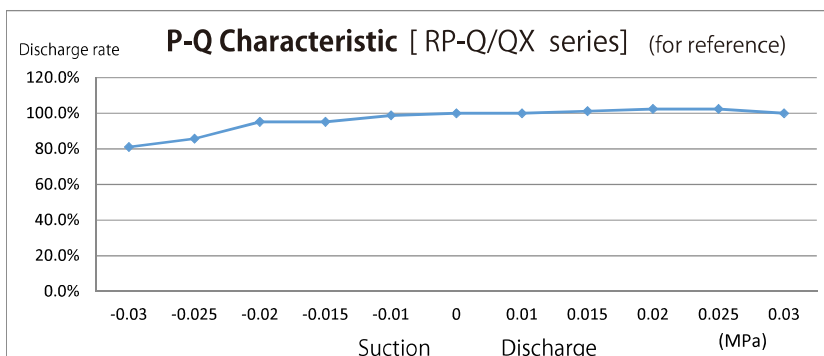
【Flow direction】



Model Lineup

Model Lineup	Voltage (DC/V)	Flow rate (mL/min)	Tubing		Remarks		
			Type	ID/OD (mm)	Variable Range	Motor Rotation	Flow Direction
RP-Q1.5S-P45Z-DC3V	3	0.45	Silicone (S)	1.5 X 2.5	3V - 5V	CCW	A
RP-Q1.2N-P20Z-DC3V	3	0.20	Norprene (N)	1.2 X 2.5			
RP-Q1.2C-P20Z-DC3V	3	0.20	SWFT (C)	1.2 X 2.5			
RP-QX1.5S-1Z-DC3V	3	1.10	Silicone (S)	1.5 X 2.5	3V (Fixed)	CW	B
RP-QX1.2N-P50Z-DC3V	3	0.50	Norprene (N)	1.2 X 2.5			
RP-QX1.2C-P50Z-DC3V	3	0.50	SWFT (C)	1.2 X 2.5			

Norprene/SWFT: product of Saint-Gobain SA



※ Variable by material or ID of tubing.

MPa	-0.03	-0.025	-0.02	-0.015	-0.01	0	0.01	0.015	0.02	0.025	0.03
Discharge rate	81.0%	85.7%	95.2%	95.2%	98.8%	100.0%	100.0%	101.2%	102.4%	102.4%	100.0%

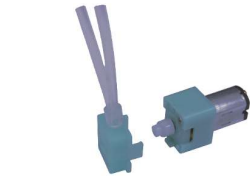
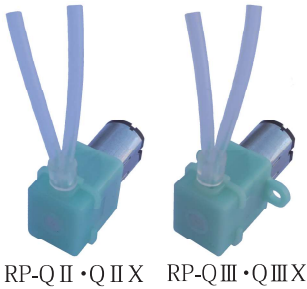
New !!

Pump head is detachable!

Ring Pump®

RP-Q II & Q II X Series

RP-Q III & Q III X Series



Features

- We have newly developed new series of RP-Q series, which has replaceable pump head that has been requested by many customers.
- All the spec. and functions are same between RP-QII series and RP-QIII series. The only difference is that RP-QIII series has mounting holes.

Examples of application

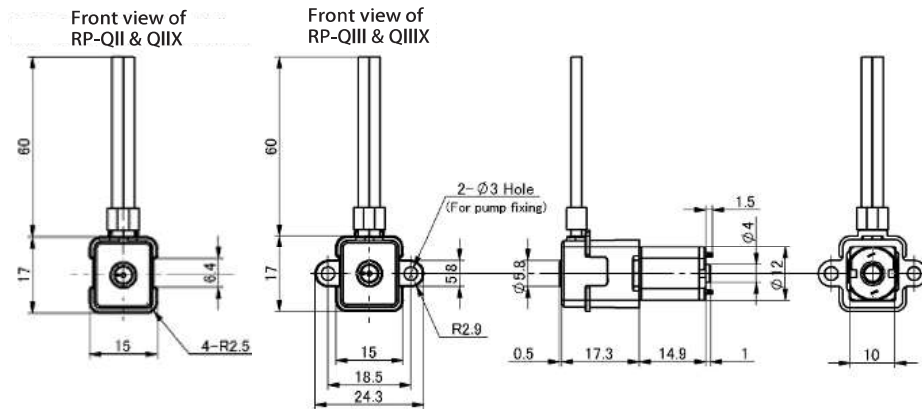
Analytical instruments, medical devices, fuel cell and many other usage where micro-fluidic control is needed.

Main specifications

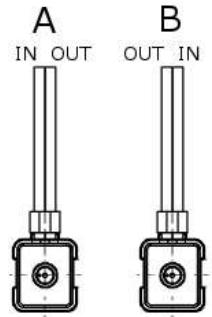
Flow rate (mL/min) ※	Q II : 0.9 0.45	Q II X : 2.2 1.2
	Q III : 0.9 0.45	Q III X : 2.2 1.2
Tubing	Silicone/SWFT	
Motor/Power source	DC3V	
Material of main parts	Case : PP	
Weight (for reference)	Approx. 13g	

When the pump head is detached.

[Outline view]



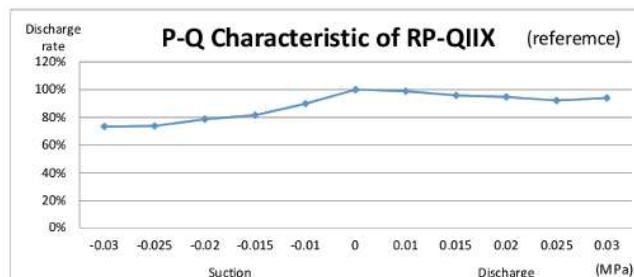
[Flow direction]



Model Lineup

Model Lineup	Voltage (DC/V)	Flow rate (mL/min)	Tubing		Remarks	
			Type	ID/OD (mm)	Motor Rotation	Flow Direction
RP-Q II 1.5S-P90Z-DC3V	3	0.90	Silicone (S)	1.5 X 2.5	CCW	A
RP-Q II 1.2C-P45Z-DC3V	3	0.45	SWFT (C)	1.2 X 2.5		
RP-Q II X1.5S-2P2Z-DC3V	3	2.20	Silicone (S)	1.5 X 2.5	CW	B
RP-Q II X1.2C-1P2Z-DC3V	3	1.20	SWFT (C)	1.2 X 2.5		
RP-Q III 1.5S-P90Z-DC3V	3	0.90	Silicone (S)	1.5 X 2.5	CCW	A
RP-Q III 1.2C-P45Z-DC3V	3	0.45	SWFT (C)	1.2 X 2.5		
RP-Q III X1.5S-2P2Z-DC3V	3	2.20	Silicone (S)	1.5 X 2.5	CW	B
RP-Q III X1.2C-1P2Z-DC3V	3	1.20	SWFT (C)	1.2 X 2.5		

SWFT: product of Saint-Gobain SA



※ Variable by material or ID of tubing.

	Suction					Discharge					
Mpa	-0.03	-0.025	-0.02	-0.015	-0.01	0	0.01	0.015	0.02	0.025	0.03
Discharge rate	73%	74%	79%	82%	90%	100%	99%	98%	95%	92%	94%

Ring Pump[®]

RP-CIII Series

Features

- Small in size and in flow rate among multi-purpose pumps in our lineup.
- Pump head including tube is replaceable and you have wide range of usage.

Examples of application

Analytical instruments, medical devices, ink jet printer and many other usage where micro-fluidic control is needed.



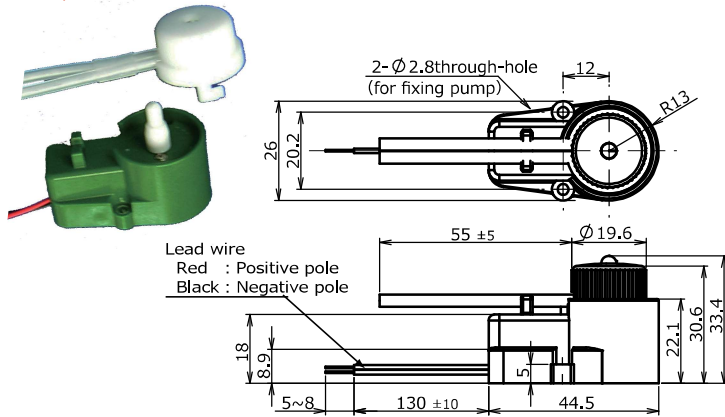
Main specifications

Flow rate (mL/min) ※	1.6 2.8
Tubing	Silicone/Pharmed/Fluran
Motor/Power source	DC3V - 5V
Material of main parts	Case:ABS Head: POM
Weight (for reference)	Approx. 30g

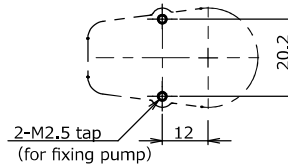
※ Flow rate can be adjustable by power voltage.

Pump head is replaceable easily without screw.

【Outline view】

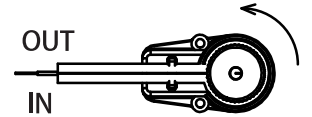


【Mounting plate view】



【Flow direction】

Rotation direction : CCW



IMPORTANT !!

Connect "red" lead wire to positive pole and "black" one to negative pole. If you connect properly, flow direction is as shown in above illustration.

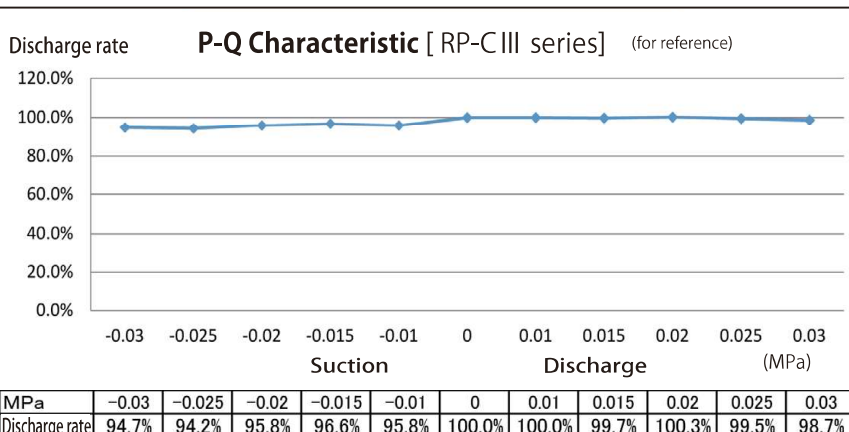
If you connect to opposit pole, it may cause troubles such as flow failure.

Model Lineup

Model Lineup	Voltage (DC/V)	Flow rate (mL/min)	Tubing		Remarks	
			Type	ID/OD (mm)	Variable Range	Rotation
RP-CIII1.6S-2Z-DC3V	3	1.6	Silicone (S)	1.6 X 3.2	3V - 5V	CCW
RP-CIII1.6F-2Z-DC3V	3	1.6	PharMed (F)	1.6 X 3.2		
RP-CIII1.6R-2Z-DC3V	3	1.6	Fluran (R)	1.6 X 3.2		
RP-CIII1.6S-3Z-DC5V	5	2.8	Silicone (S)	1.6 X 3.2	3V - 5V	CCW
RP-CIII1.6F-3Z-DC5V	5	2.8	PharMed (F)	1.6 X 3.2		
RP-CIII1.6R-3Z-DC5V	5	2.8	Fluran (R)	1.6 X 3.2		

* Flow rate can be adjusted by power voltage from 3V to 5V.

* PharMed / Fluran : product of Saint-Gobain SA



* Variable by material or ID of tubing.

Ring Pump®

RP-HX Series



Features

- The world smallest level flow rate.
- Wide range of flow levels are possible by using different pumpheads.
- Docking of the pumphead can be done in one action. No screw bolt is necessary.
- Autoclave sterilizable pumphead is available.

Examples of application

Analytical instruments, medical devices, cell culturing experiments and many other usage where micro-fluidic control is needed.

Main specifications

Flow rate ($\mu\text{L}/\text{min}$)*	4 - 1,000
Tubing	Silicone, Olefin
Motor/Power source	Stepper motor DC 2.6 - 3V
Material of main parts	Case : Fiber glass reinforced PC
Weight (for reference)	Approx. 28g

*Flow rate is at revolution speed 5 - 1,000 pps (1/4 micro step).

Replaceable Pumphead



Replaceable pumphead
RK-HXP5S



Replaceable pumphead
RK-HXP5S-C
Autoclave sterilizable

Motor Controller



RE-F100
RE-C100
Motor controller and frequency counter for RP-HX pumps

New Motor Controller RE-C200 & C201

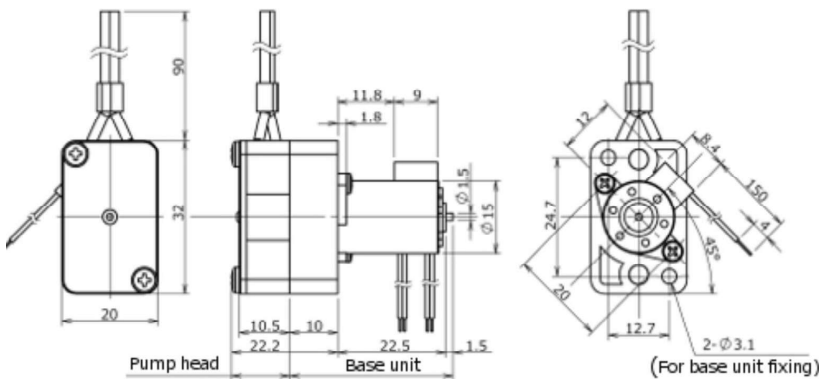
RE-C200

RE-C201

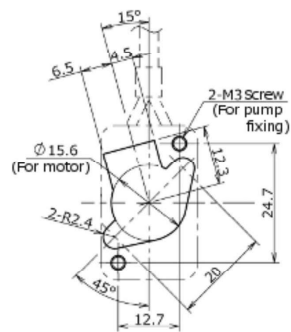
Set example with PC

Software display on PC

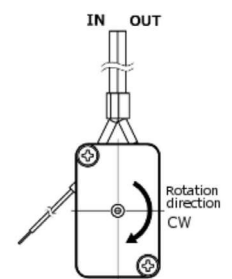
Outline view



Mounting plate view



Flow direction in CW revolution



Model Lineup

Model Lineup	Pumphead	Voltage (DC/V)	Flow rate ($\mu\text{L}/\text{min}$)	Tubing	
				Type	IDxOD (mm)
RP-HXP5S-P4A-DC3VS	RK-HXP5S	3	2 - 400	Silicone (S)	0.5 x 1.5
RP-HXP5S-P4E-DC3VS	RK-HXP5S-C (sterilizable)	3	2 - 400	Silicone (S)	0.5 x 1.5
RP-HX01S-1A-DC3VS	RK-HX01S	3	5 - 1,000	Silicone (S)	1.0 x 2.0
RP-HX01S-1H-DC3VS	RK-HX01S-D (sterilizable)	3	5 - 1,000	Silicone (S)	1.0 x 2.0
RP-HXP5F-P25A-DC3VS	RK-HXP5F	3	2 - 350	Olefine (F)	0.5 x 1.5

Flow rate in using our motor controller

Model Lineup	RE-C100 ($\mu\text{L}/\text{min}$)		RE-C200, C201 ($\mu\text{L}/\text{min}$)
	1/4 micro step	1/8 micro step	
RP-HXP5S-P4A-DC3VS	5 - 400	2.5 - 200	2 - 400
RP-HXP5S-P4E-DC3VS	5 - 400	2.5 - 200	2 - 400
RP-HX01S-1A-DC3VS	12 - 1,000	6 - 500	5 - 1,000
RP-HX01S-1H-DC3VS	12 - 1,000	6 - 500	5 - 1,000
RP-HXP5F-P25A-DC3VS	4 - 350	2 - 180	2 - 350

Ring Pump®

RP-TX シリーズ



Features

- The world smallest level flow rate.
- Wide range of flow levels are possible by using different pumpheads.
- Docking of the pumphead can be done easily by using three screw bolts.
- Autoclave sterilizable pumphead is available.

Examples of application

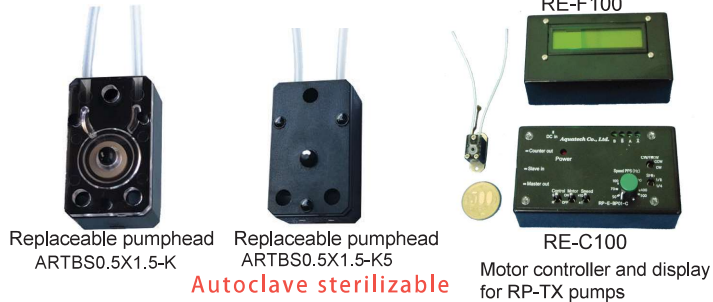
Analytical instruments, medical devices, cell culturing experiments and many other usage where micro-fluidic control is needed.

Main specifications

Flow rate ($\mu\text{L}/\text{min}$)*	0.03 - 40
Tubing	Silicone, Olefin
Motor/Power source	Stepper motor DC 3V
Material of main parts	Case : PC/ABS etc.
Weight (for reference)	Approx. 13.5g

*Flow rate is at revolution speed 1 - 1,000 pps (1/4 micro step).

Replaceable Pumphead Motor Controller



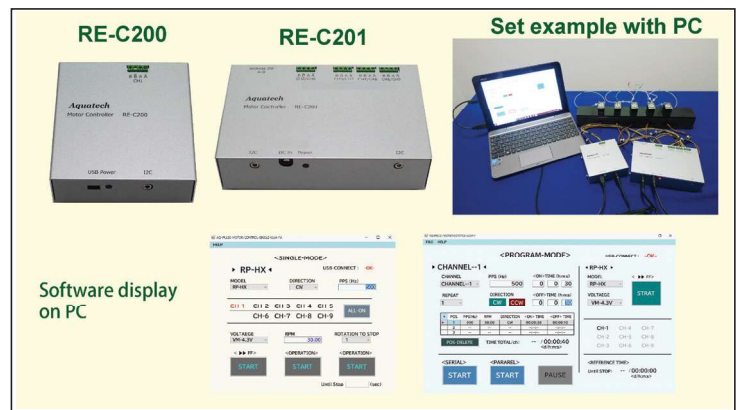
Replaceable pumphead
ARTBS0.5X1.5-K

Replaceable pumphead
ARTBS0.5X1.5-K5

Autoclave sterilizable

RE-F100
RE-C100
Motor controller and display
for RP-TX pumps

New Motor Controller RE-C200 & C201



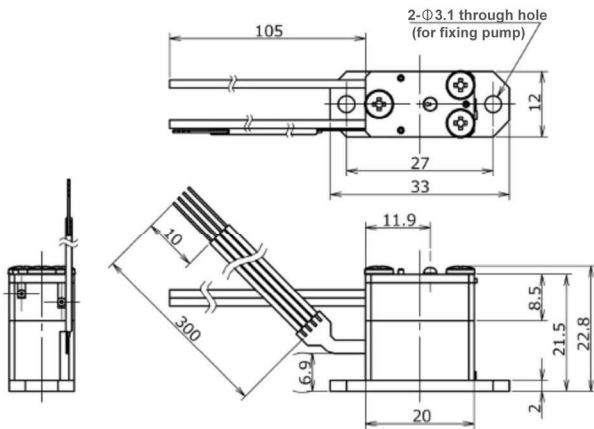
RE-C200

RE-C201

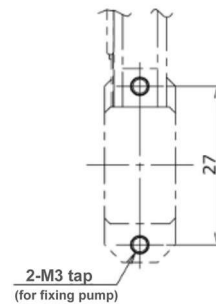
Set example with PC

Software display
on PC

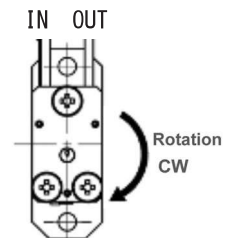
Outline view



Mounting plate view



Flow direction in CW revolution



Model Lineup

Model Lineup	Pumphead	Voltage (DC/V)	Flow rate ($\mu\text{L}/\text{min}$)	Tubing	
				Type	IDxOD (mm)
RP-TXP5S-P04A-DC3VS	AR-TBS0.5X1.5-K	3	0.03 - 40	Silicone (S)	0.5 x 1.5
RP-TXP5S-P04L-DC3VS	AR-TBS0.5X1.5-K5 (sterilizable)	3	0.03 - 40	Silicone (S)	0.5 x 1.5
RP-TXP5F-P03A-DC3VS	AR-TBF0.5X1.5-K	3	0.03 - 30	Olefin (F)	0.5 x 1.5

Flow rate in using our motor controller

Model Lineup	RE-C 100 ($\mu\text{L}/\text{min}$)		RE-C 200, C-201 ($\mu\text{L}/\text{min}$)
	1/4 micro step	1/8 micro step	
RP-TXP5S-P04A-DC3VS	0.48 - 40	0.24 - 20	0.03 - 40
RP-TXP5S-P04L-DC3VS	0.48 - 40	0.24 - 20	0.03 - 40
RP-TXP5F-P03A-DC3VS	0.36 - 30	0.18 - 15	0.03 - 30

PROTOTYPE

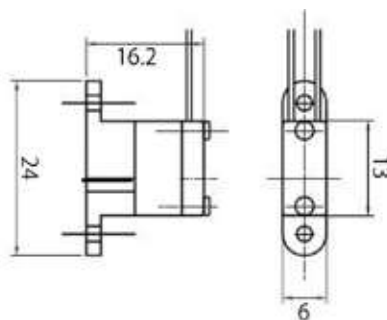
Super Micro Ring Pump **RP-SX**

Characterisitics

- ✓ World smallest size level peristaltic pump.
- ✓ By using stepping motor with reduction gear, wider range of flow level has become available.
- ✓ You can start to use RP-SX quite easily by using the specially arranged controller which is sold separately.



RP-SX pump



Dimensions



RE-C100

Controller & Display

● Specifications

		Description	N.B.
Composition	Tube	Silicone tube	ID φ 0.3、OD φ 0.7 (mm)
	Motor	Stepping motor Rated voltage: DC3V	With reduction gear.
	Main parts	Case, Rotor, Motor, Tube	-
Specification	Dimensions	L6xW24x16.2 (mm) (wt. 3g)	(excluding tube length)
	Discharge volume	1 - 10 (μL/min) ± 15% (Motor rotation 20pps - 800pps)	Using water at 25°C.
	Discharge press.	>0.03kPa.	-

Aquatech Co., Ltd.

<http://www.ringpump-aquatech.co.jp/>
 2-1-13, Ono, Daito City, Osaka 574-0042, Japan
 Phone: 81-72-806-3210 Fax: 81-72-806-3211

Overseas Sales Agent
TAKASAGO ELECTRIC, INC.

66, KAKITSUBATA, NARUMI-CHO, MIDORI-KU, NAGOYA, 458-8522 JAPAN
 Phone 81-52-891-2301 Fax 81-52-891-7386
 E-mail: info@takasago-elec.co.jp URL: <http://www.takasago-fluidic.com>

Advanced stepper motor controller for Micro Ring Pump **RP-HX** and **RP-TX**

RE-C200 Main controller unit (1ch)

Main controller unit “RE-C200” can be connected with 2 slave units “RE-C201” .

RP-TX



RP-HX



Applicable pumps

RP-HX series, RP-TX series

Drive voltage

RP-HX: VM-4.3V (Default) / VM-2.6V

RP-TX: VM-2.6V

Motor speed

1 to 2,000 PPS (4Hz to 8,000Hz)

Digital frequency division

Function

Various controls (uses PC software)

1. Single mode

2. Program mode

Accessories

Type-A, Type-B USB cable

USB memory (PC software)

Release date

February, 2020

RE-C200

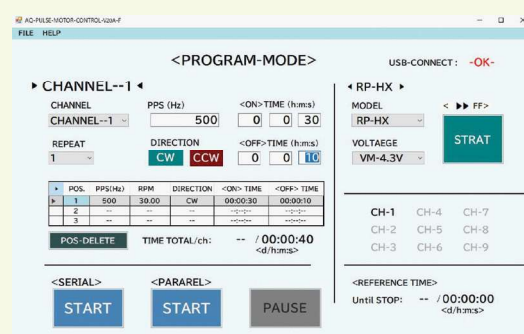
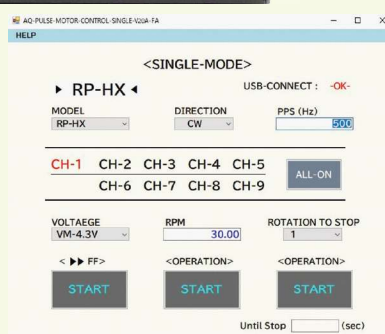


Set example

- RE-C200 x 1
- RE-C201 x 1
- RP-HX pump x 5



**Software display
on PC**



Advanced stepper motor controller for Micro Ring Pump **RP-HX** and **RP-TX**

RE-C201 Slave controller unit (4ch)

Since one slave controller unit “RE-201” can control 4 pumps, up to 9 single operations are possible.

RP-HX



RP-TX



Applicable pumps	RP-HX series, RP-TX series
Drive voltage	RP-HX: VM-4.3V (Default) / VM-2.6V RP-TX: VM-2.6V
Motor speed	1 to 2,000 PPS (4Hz to 8,000Hz) Digital frequency division
Function	Various controls (uses PC software) 1. Single mode 2. Program mode
Accessories	AC-DC adaptor I2C connection cable
Release date	February, 2020

RE-C201

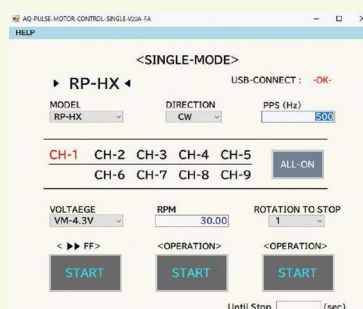


Set example

- RE-C200 x 1
- RE-C201 x 1
- RP-HX pump x 5



Software display
on PC



Line-up of Micro Ring Pump

(Customised products are included)

