

**New !**

# Ring Pump®

## RP-H series

**Being compatible with various motors, wider variety of choices became available.**

### Features

- **High reliability specifications.**  
By adopting needle roller bearing for output shaft, we could achieve 5,000 hours of continuous operation.  
(5,000 hours is our experimental value, except for brushed DC motor, using water and it is not guaranteed value.)
- **Various motor specifications to suit your own application.**
  - Brushed DC motor
  - Brushless DC motor
  - Stepper motor
- **Pumphead is replaceable.**  
Docking of pumphead can be done quite easily in a single action by adopting strong magnet.
- **Pumphead can be sterilized.**
  - Autoclave sterilization 10 times at 121°C x 25 min.  
(Except pumphead with TM-15 tubing.)
  - γ ray sterilization (25kGy)
- **Tubings can be selected from 6 types.**

### Main specifications

Motor type →	Brushed DC	Brushless DC	Stepper
Flow rate	2 - 10 mL /min	2 - 10 mL /min	20 μL-10mL/min
Motor / Power source	DC24V (Variable:DC6 - 24V)	DC24V (PWM-Duty cycle 30 - 100% variable)	DC5V / 24V (1 - 400PPS: 0.25 - 100rpm)
Tubing	Silicone PharMed BPT Versilon F-5500-A Transmaster TM-15	φ 1.6 x 3.2 φ 1.6 x 3.2 φ 1.6 x 3.2 φ 1.6 x 3.2	φ 2.0 x 4.0 φ 2.0 x 4.0 (mm)
Weight (for reference)	approx. 350 g	approx. 345 g	approx. 285 g

PharMed BPT, Versilon : Product of Saint-Gobain SA  
(Transmaster) TM-15 : Product of Mitsubishi, Japan

### Examples of application

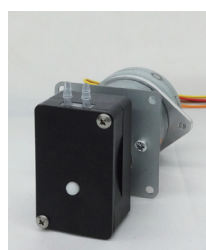
Analytical instruments, medical devices, cell culturing experiments and many other usage where micro-fluidic control is needed.



RP-H pump with brush motor



RP-H pump with brushless motor



RP-H pump with stepper motor



Pumphead is detached from the pump with stepper motor.

We recommend to use **RE-C700** motor controller which is dedicated to use with 5V RP-H pumps of stepper motor type. For 24V stepper motor type, dedicated driver circuit board **BD202411-H** is recommend.

#### RE-C700



Motor wiring does not include a Molex connector. (Connection to RE-C700 is possible.)

#### BD202411-H



Motor wiring is equipped with a JST connector.

### Lineup

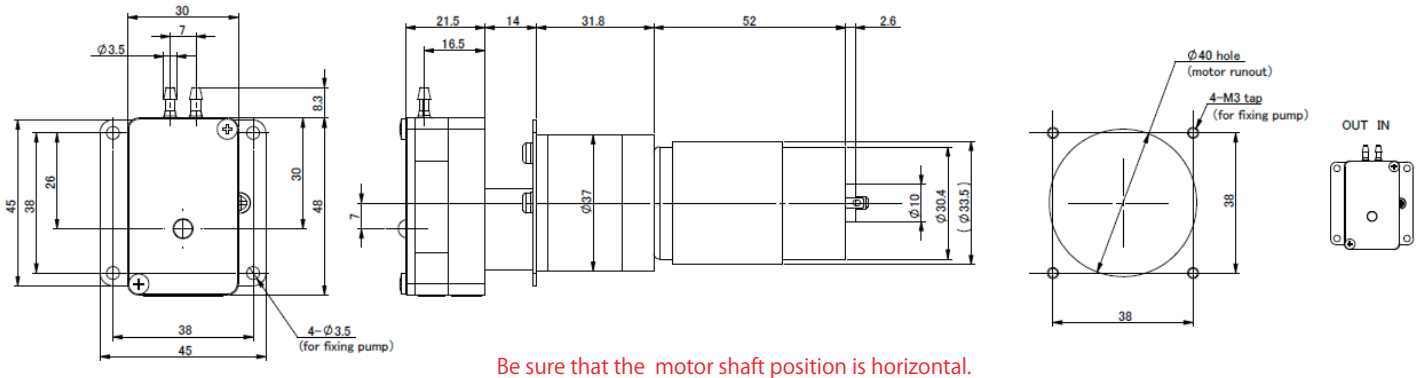
	Model Lineup	Voltage (DC/V)	Flow rate (mL/min)	Tubing		Model of pumphead
				Type	ID x OD (mm)	
Brushed DC motor	RP-H02S-10Z-DC24V	24	3 - 10	Silicone	2.0 x 4.0	RK-H02S-A
	RP-H02F-10Z-DC24V	24	3 - 10	PharMed BPT	2.0 x 4.0	RK-H02F
	RP-H1.6S-7Z-DC24V	24	2 - 7	Silicone	1.6 x 3.2	RK-H1.6S
	RP-H1.6F-7Z-DC24V	24	2 - 7	PharMed BPT	1.6 x 3.2	RK-H1.6F
	RP-H1.6R-7Z-DC24V	24	2 - 7	Versilon F-5500-A	1.6 x 3.2	RK-H1.6R
	RP-H1.6W-7Z-DC24V	24	2 - 7	TransmasterTM-15	1.6 x 3.2	RK-H1.6W
Brushless DC motor	RP-H02S-10Z-DC24VL	24	3 - 10	Silicone	2.0 x 4.0	RK-H02S-A
	RP-H02F-10Z-DC24VL	24	3 - 10	PharMed BPT	2.0 x 4.0	RK-H02F
	RP-H1.6S-7Z-DC24VL	24	2 - 7	Silicone	1.6 x 3.2	RK-H1.6S
	RP-H1.6F-7Z-DC24VL	24	2 - 7	PharMed BPT	1.6 x 3.2	RK-H1.6F
	RP-H1.6R-7Z-DC24VL	24	2 - 7	Versilon F-5500-A	1.6 x 3.2	RK-H1.6R
	RP-H1.6W-7Z-DC24VL	24	2 - 7	TransmasterTM-15	1.6 x 3.2	RK-H1.6W
Stepper motor	RP-H02S-10Z-DC5VS	5	(30 μL) - 10	Silicone	2.0 x 4.0	RK-H02S-A
	RP-H02F-10Z-DC5VS	5	(30 μL) - 10	PharMed BPT	2.0 x 4.0	RK-H02F
	RP-H1.6S-7Z-DC5VS	5	(20 μL) - 7	Silicone	1.6 x 3.2	RK-H1.6S
	RP-H1.6F-7Z-DC5VS	5	(20 μL) - 7	PharMed BPT	1.6 x 3.2	RK-H1.6F
	RP-H1.6R-7Z-DC5VS	5	(20 μL) - 7	Versilon F-5500-A	1.6 x 3.2	RK-H1.6R
	RP-H1.6W-7Z-DC5VS	5	(20 μL) - 7	TransmasterTM-15	1.6 x 3.2	RK-H1.6W
	RP-H02S-10Z-DC24VS	24	(30 μL) - 10	Silicone	2.0 x 4.0	RK-H02S-A
	RP-H02F-10Z-DC24VS	24	(30 μL) - 10	PharMed BPT	2.0 x 4.0	RK-H02F
	RP-H1.6S-7Z-DC24VS	24	(20 μL) - 7	Silicone	1.6 x 3.2	RK-H1.6S
	RP-H1.6F-7Z-DC24VS	24	(20 μL) - 7	PharMed BPT	1.6 x 3.2	RK-H1.6F
	RP-H1.6R-7Z-DC24VS	24	(20 μL) - 7	Versilon F-5500-A	1.6 x 3.2	RK-H1.6R
	RP-H1.6W-7Z-DC24VS	24	(20 μL) - 7	TransmasterTM-15	1.6 x 3.2	RK-H1.6W

# Outline views of the pumps with different motors.

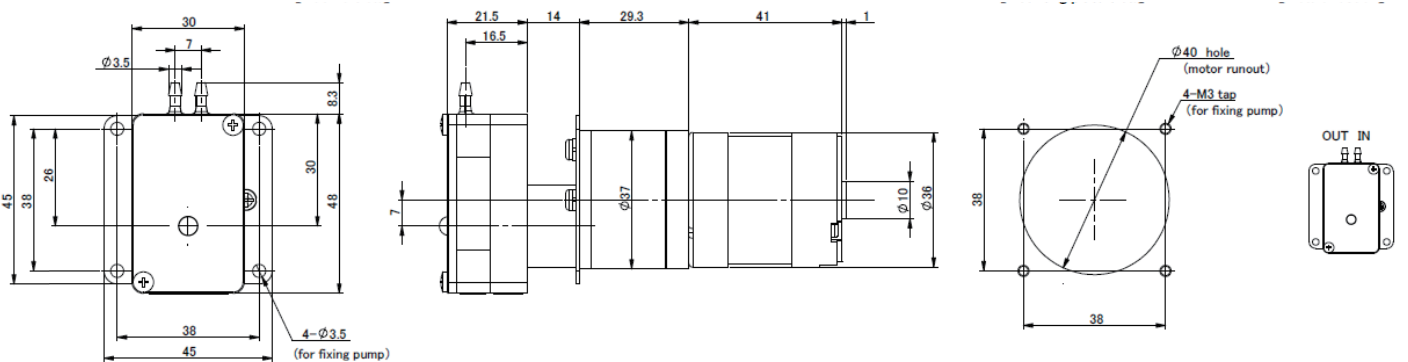
Outline view

Mounting plate view Flow direction in CW revolution

RP-H pump with brushed motor



RP-H pump with brushless motor



RP-H pump with stepper motor

