



2017/01

We aim to build the world brand of Peristaltic Pump

# Shenchen Pump

Exported to  
**63** countries



## PERISTALTIC PUMP SYRINGE PUMP · GEAR PUMP

Baoding Shenchen Precision Pump Co.,Ltd  
Baoding Peristaltic Pump Engineering Technology Research Center



# COMPANY



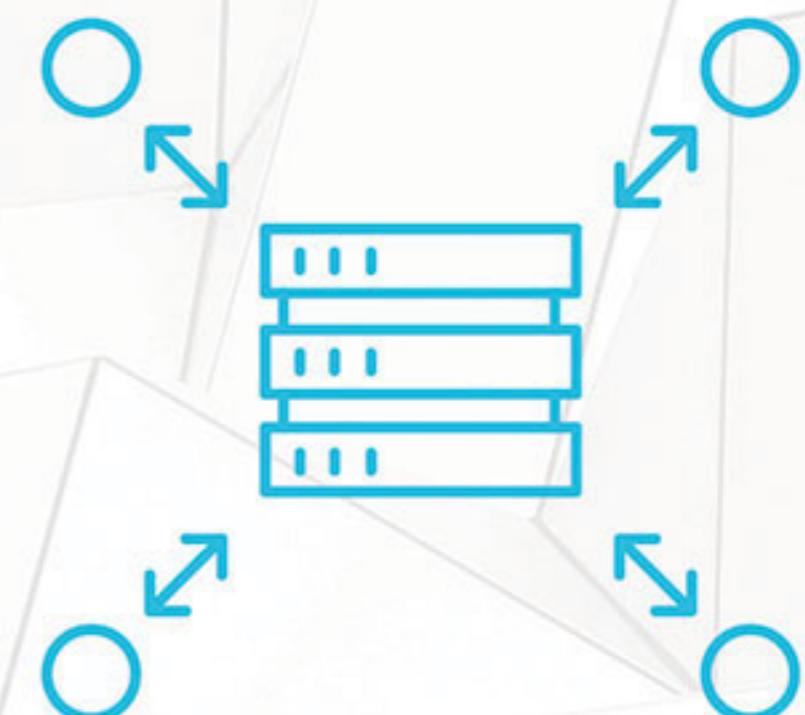
IN 2014-2017  
**2017**

"Leading Brand", which can replace imported brand and conform to European standards, and has been exported to 63 countries around the world.



IN 2010-2013  
**2010**

Shenchen upgrade all the products and successfully entered the international market.



IN 2009  
**2009**

Shenchen products continuously fill gaps in the market.

## Baoding Shenchen Precision Pump Co., Ltd

Baoding Shenchen Precision Pump Co., Ltd. is a high-tech enterprise, specialized in R&D, manufacturer and sales of peristaltic pump, syringe pump, gear pump and other precision fluid transferring equipment. Also can do OEM product according with customers' different requirements.

Shenchen team is a high-qualified, young and innovative team, have research engineer, application engineer and professional sales and service team. With rich technical force, excellent technological process and outstanding product quality, Shenchen get well corporate reputation from global customers.

Shenchen products are widely used in research laboratory, bio-pharmaceuticals, food & beverage, fine chemical, environment, etc. Our pumps have been exported to Germany, UK, USA, Australia, Russia, in total 63 countries.





# SHENCHEN



BUILD IN 2006  
**2006**

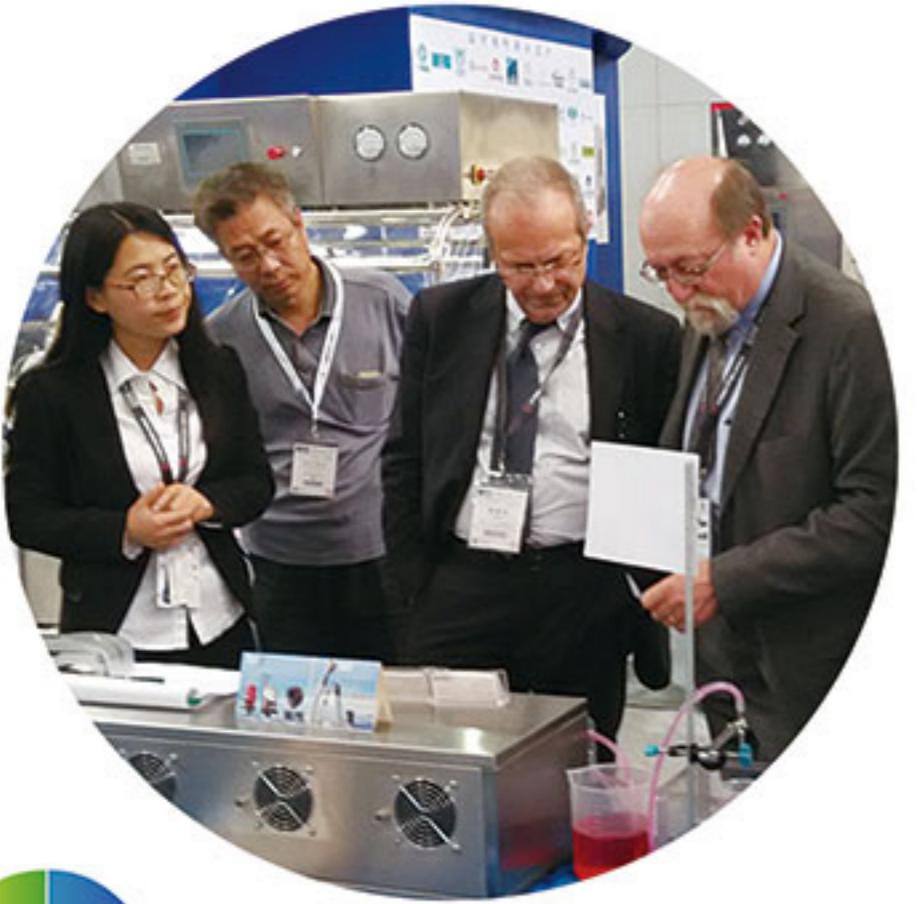
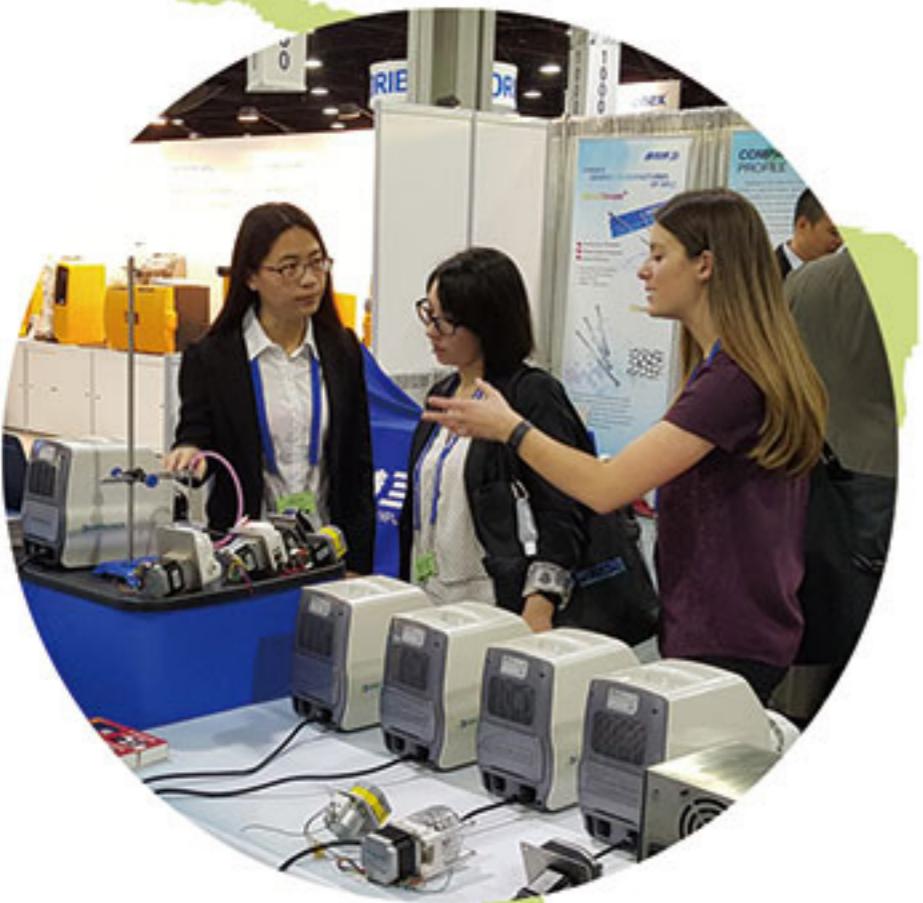
Innovation—the first producer of easy load pump head with PPS material, solving the technical problem what the PSU material pump head can't bearing corrosion resistance.

- More than 10 years experience.
- R&D engineers take up 35% of company staff.
- 30% of the company's annual profits for R&D funds.
- The first technology research center for peristaltic pump.

- Every year launch 2-3 new series products.
- All products are CE certified.
- 21 patents, 4 software copyrights.



# EXPORTED TO 63 COUNTRIES





# APPLICATION



Pharmaceutical filling



Food & Beverage  
filling



Waste water  
treatment



Chromatography



Cosmetic filling



Laboratory chemical  
dosing



Reagents dispensing



Analytical instrument  
sampling





# DIRECTORY

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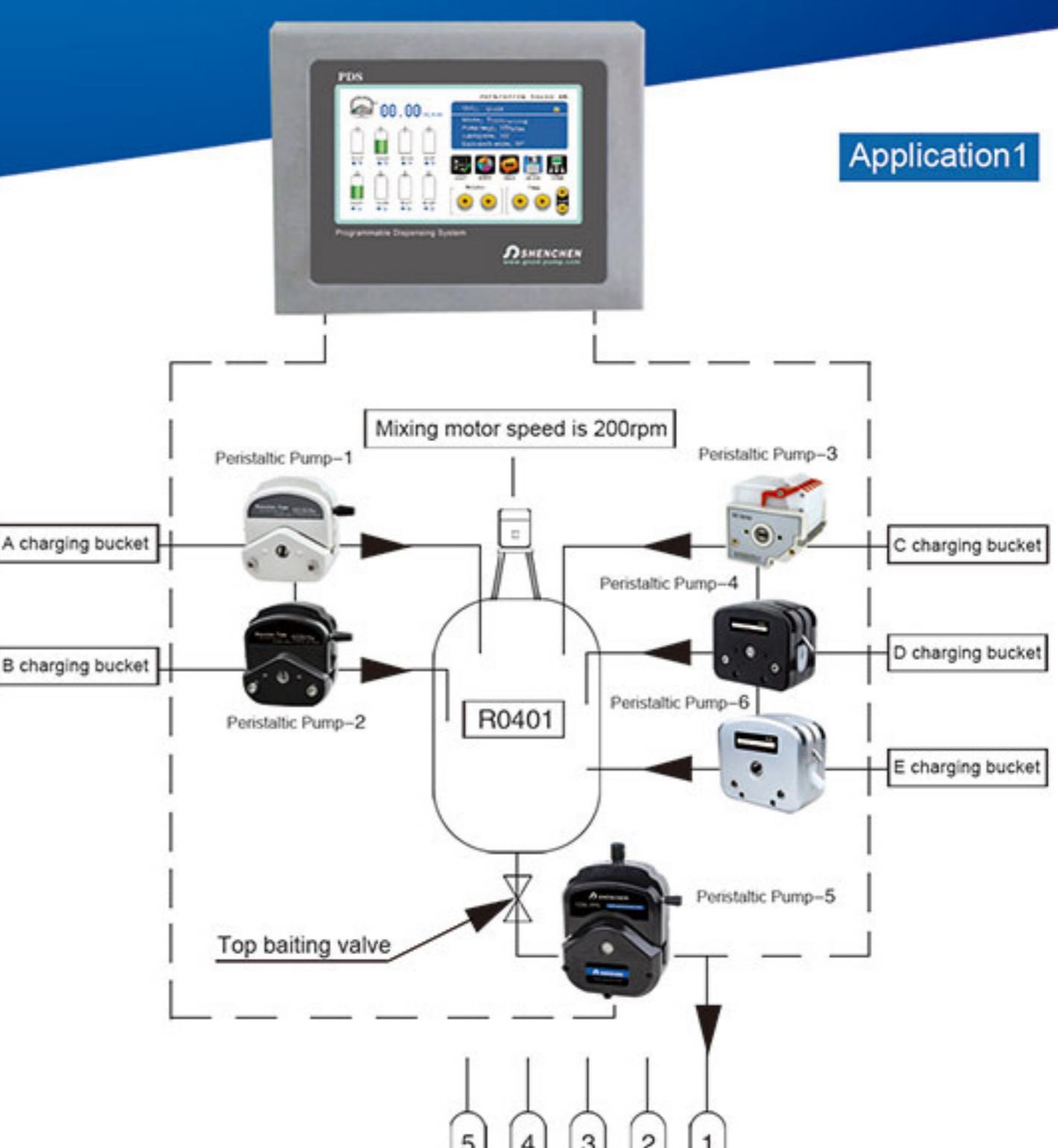
# OCM

*Revolutionary breakthrough in fluid control area  
ShENCHEN provide OCM customized fluid solution*

*OCM ( Original Customized Manufacture ) customized fluid solution, with peristaltic pump core technology. Two working modes: Independent working mode and Logic working mode.*



- Same volume filling, different volume filling and transferring fluid
- Different units can co-work according with preset program.
- Independent working mode and logic working mode can work cooperatively.
- Different filling line, different dispensing request, choose freely, barrier-free conversion.



- Application 1 Chemical industry: Reactor liquid adding, dispensing and washing, with different volume and adding liquid according to preset order.
- Application 2 Laboratory industry: Dispensing different reagents in laboratory, dispensing reagent of different media, different volume, different concentration at the same time.
- Application 3 Printing and dyeing industry: Pigment accurate allocation, use several different pump heads to allocate different colors of pigment.
- Application 4 Pharmaceutical industry: filling one bottle with several times during filling process to prevent foaming.
- Application 5 Filling field: Can be connected with the balance to be closed loop control system, to achieve large volume, high efficiency, high precision liquid filling.



- Peristaltic pump core technology
- One to one customized service
- Self-define working mode



Diagram 1

In independent working mode, each unit working independently, can fill different volume.

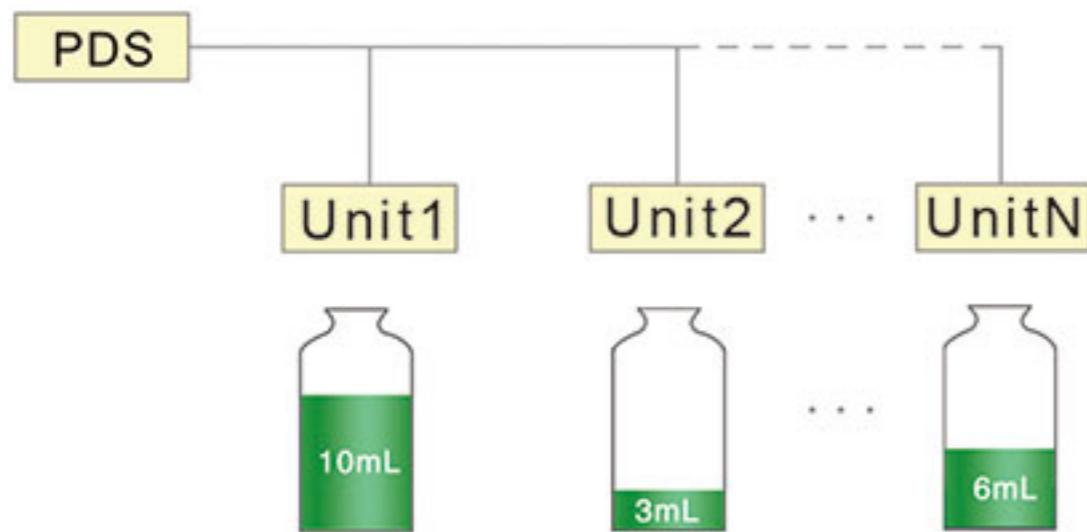


Diagram 2

In independent working mode, each unit can repeat filling same volume in the same time, achieving normal dispensing function.

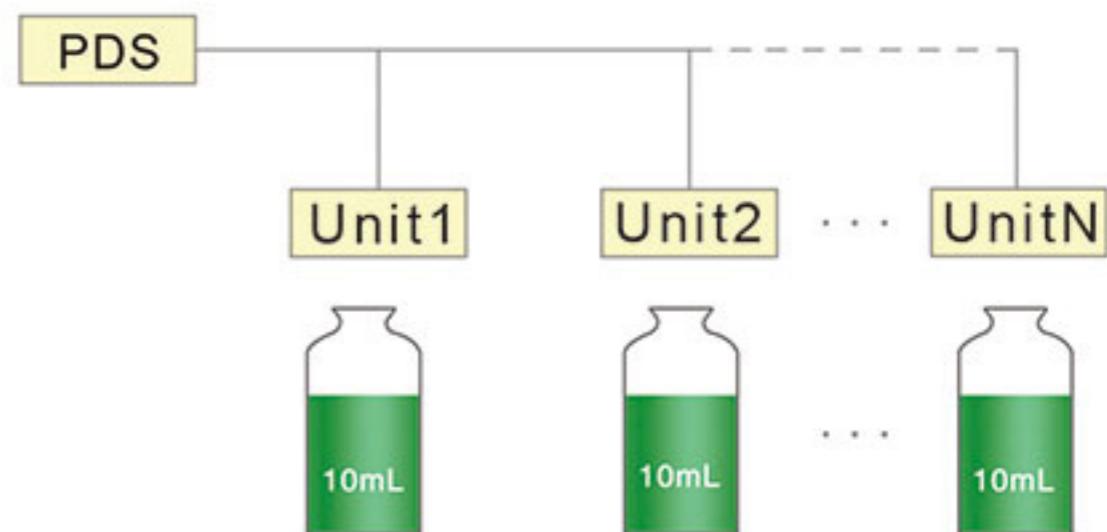


Diagram 3

In independent working mode, each unit can finish filling process with multiple different filling volume. This function suitable for prevent fluid splashing and foaming. This process can also repeat many times, achieving complicated dispensing function.

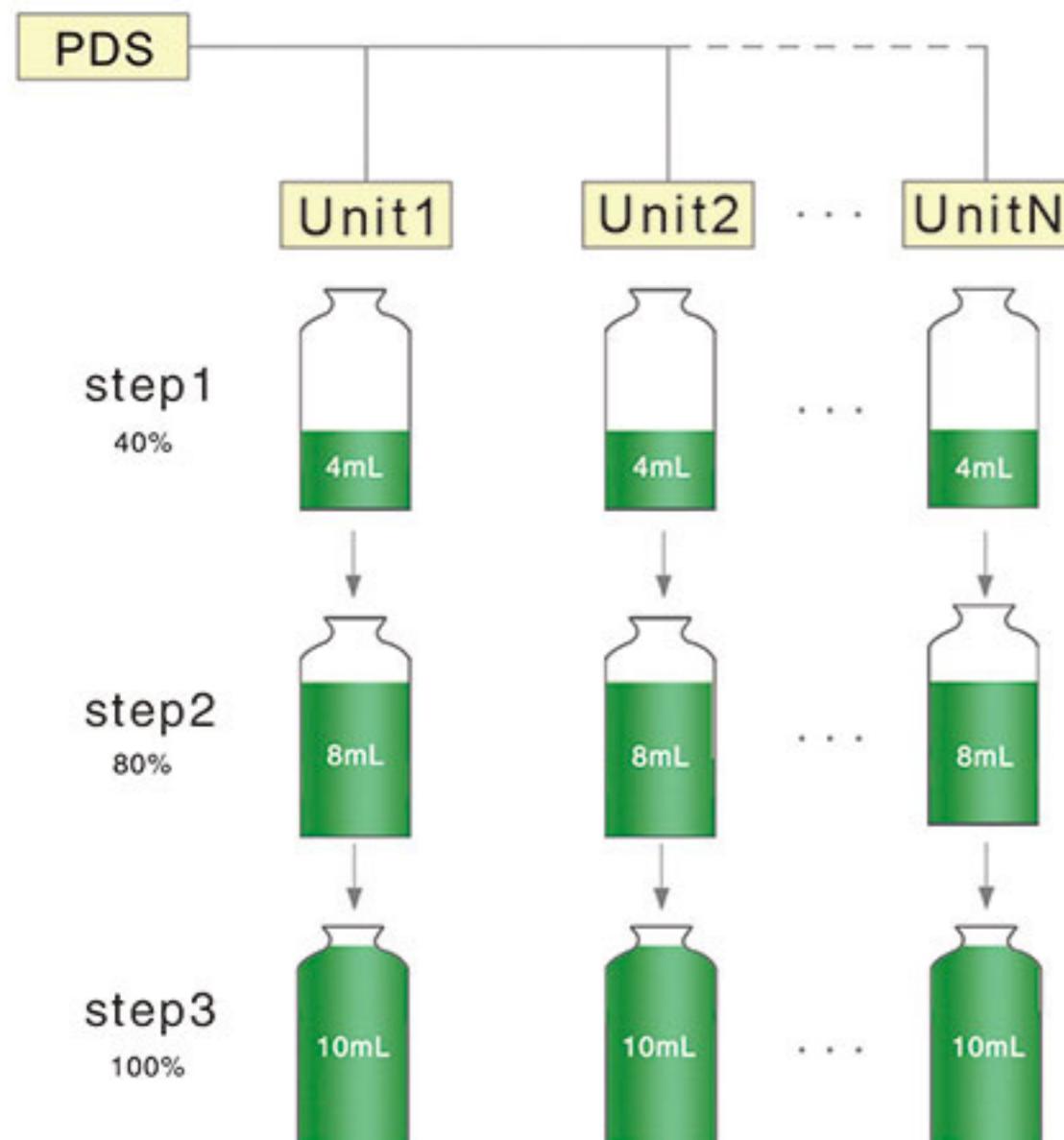
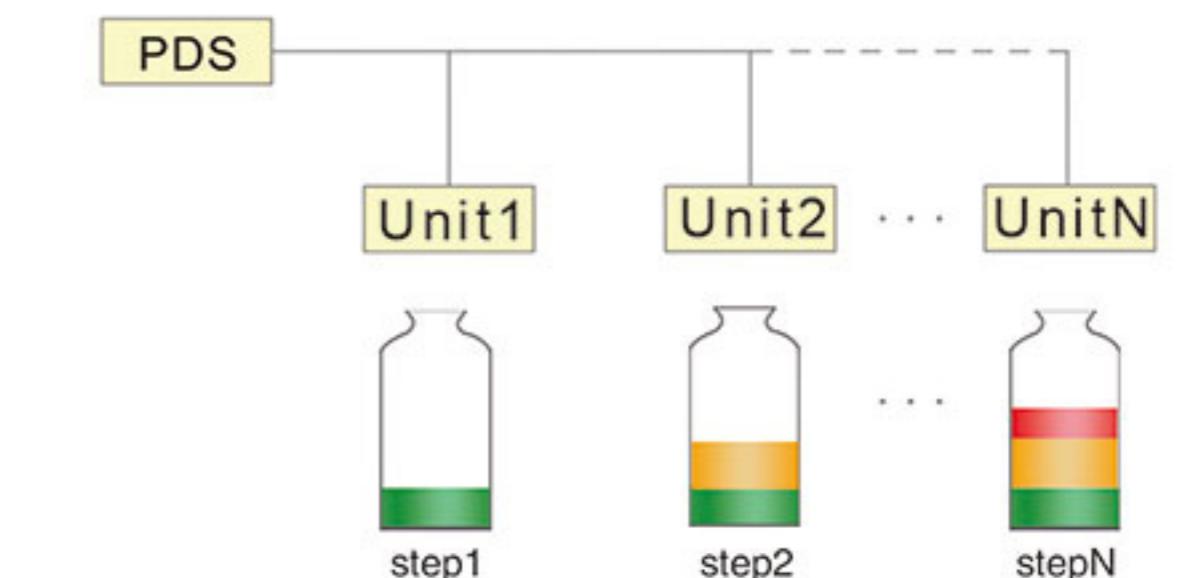


Diagram 4

In logic working mode, each unit working cooperatively. Filling or transferring with orders, also with different proportion adding, finish automation mixing work.



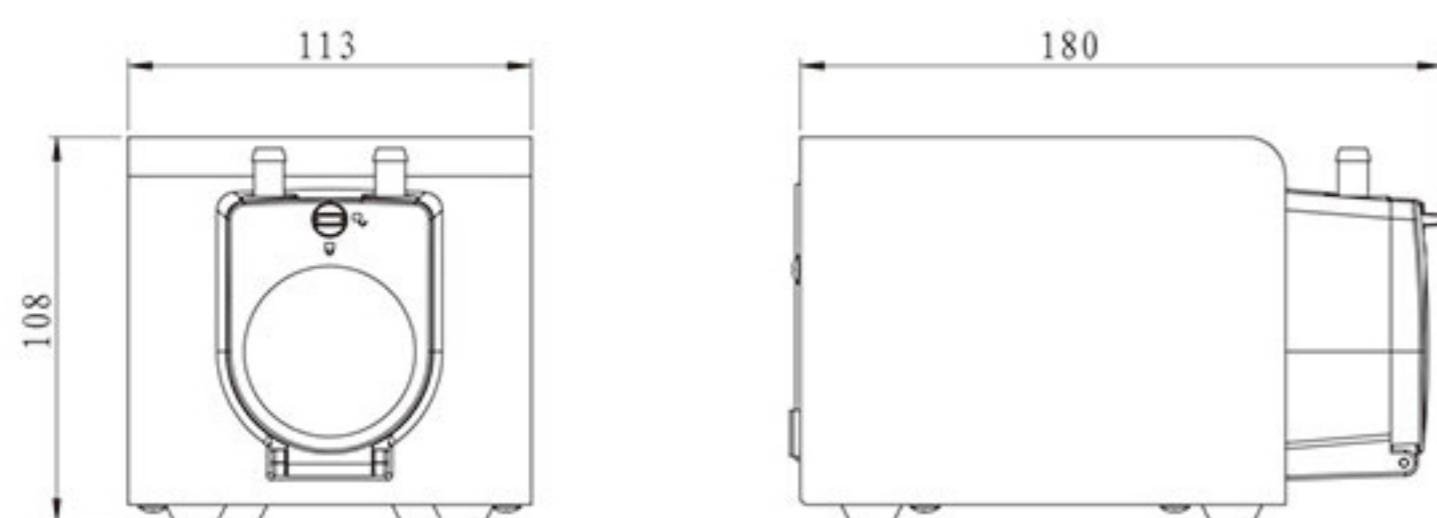
**Shenchen—leading the new era of intelligent peristaltic pump**

## Compact Peristaltic Pump

EM-UD15



### Dimension drawing (Unit mm)



### Product Introduction

EM-UD15 use plastic coated metal housing, stepper motor drive.

OLED display motor speed, mechanical keypad control.

Compact design and space-saved, various external control function, support RS485 communication and standard Modbus protocol.

### Product Features

Compact design and space-saved.

Mechanical keypad control, sensitive feeling, long lifetime.

UD15 pump head, 4 colors transparent protecting shell for option: red, yellow, blue and natural color. Easy to observe the working situation of pump head and tubing. Various external control function, more suitable for instrument supporting.

### Technical Specifications

Motor type	Stepper motor	Communication	RS485 communication port, Standard
Speed range	0.1-350rpm, reversible	interface	MODBUS communication protocol
Flow rate range	0.08-1000ml/min	Power supply	DC 24V/1A
Speed resolution	0.1rpm	Dimension	180*113*108mm (L×W×H)
External control	TTL pulse control start/stop, reverse	Weight	1.8kg
	Level mode control start/stop, reverse	Condition temperature	0-40°C
	0-5V/4-20mA control speed	Relative humidity	< 80%
Display	OLED display	IP rate	IP31

### Product Composition and Flow Rate Range

Model	Pump Head	Speed (rpm)	Tubing		Flow Rate Range ( ml/min )	Tubing Max.Pressure ( Mpa )	
			Size	ID*Wall Thickness ( mm )		Continuous	Intermittent
EM-UD15	UD15	0.1-350	16#	3.1*1.6	0.08-280	0.17	0.27
			25#	4.8*1.6	0.16-580	0.14	0.1
			17#	6.4*1.6	0.30-1000	0.24	0.14

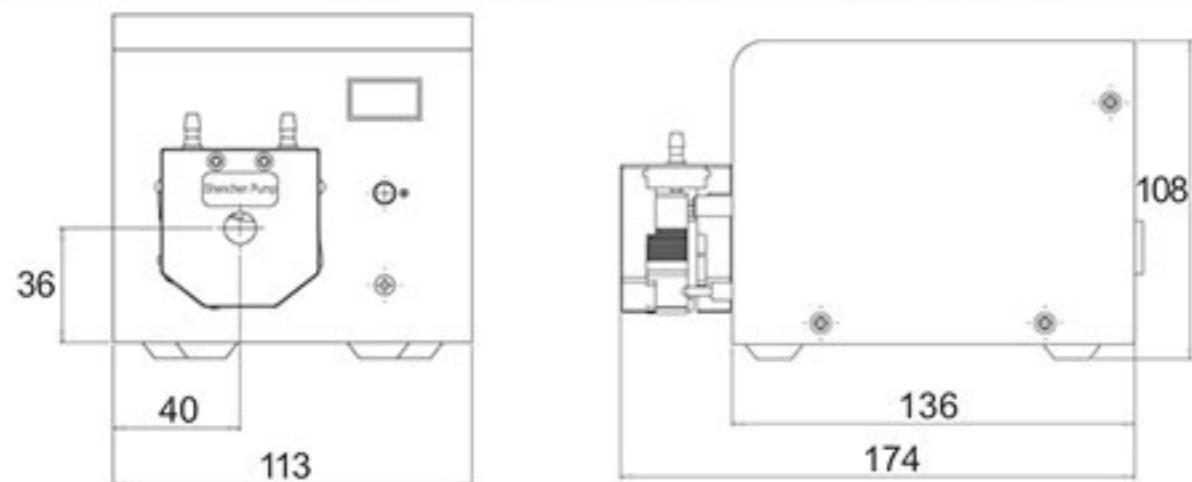


## Compact Peristaltic Pump

**SP-MiniPump**



**Installation Sizes Drawing** (Unit: mm)



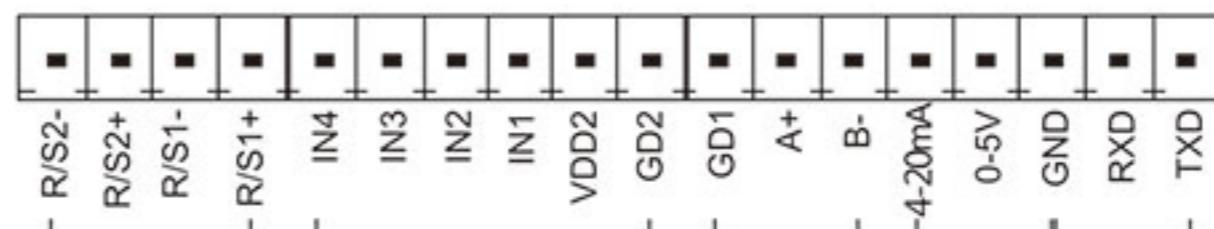
### Features

- 304 stainless steel housing, resisting corrosion, space-saved.
- OLED screen, display the current motor speed and working status.
- Digital knob control speed, toggle switch control direction and start/stop.
- Various external control functions, support RS485 standard MODBUS protocol.

### Model Number

| SP-MiniPump01, SP-MiniPump02

### External Control Schematic Diagram



### Technical Specifications

Flow rate range	0.0024~190 mL/min	Communication interface	RS485 support MODBUS protocol (RTU mode)
Speed range	0.1~300 rpm, reversible.	Power supply	24V/1A DC power
Speed resolution	0.1rpm	Drive dimension	136×113×108 mm (L×W×H)
Speed control	Digital knob control speed	Weight	1.64 kg
Motor type	Stepper motor	Power consumption	< 15 W
Display	OLED display	Condition temperature	0~40°C
External control	Start/stop control ( switch signal) Speed control 0-5V, 0-10V, 4-20mA for option(Analog signal)	Relative humidity	< 80%
		IP rate	IP31

### EM-MiniPump and SP-MiniPump Speed/Flow Rate Reference

Rotation Speed ( rpm )	Dual Channel Flow Rate (mL/min) and Tubing (1 mm wall thickness )				
	ID 1 mm	ID 2 mm	ID 2.5 mm	ID 3 mm	
5	0.25	0.90	1.28	1.78	
10	0.49	1.84	2.59	3.52	
15	0.74	2.76	3.85	5.30	
25	1.25	4.57	6.43	8.80	
40	2.00	7.31	10.25	14.02	
50	2.52	9.14	12.78	17.47	
75	3.76	13.64	19.04	26.12	
100	5.03	18.17	25.42	35.34	
200	10.12	36.45	51.27	71.44	
250	12.63	45.75	64.34	88.35	
300	15.01	54.63	76.84	108.39	

Rotation Speed ( rpm )	Single Channel Flow Rate (mL/min) and Tubing (1.6 mm wall thickness )				
	13# Tubing ID 0.8 mm	14# Tubing ID 1.6 mm	16# Tubing ID 3.1 mm	25# Tubing ID 4.8 mm	
5	0.12	0.56	1.97	3.26	
10	0.26	1.15	3.90	6.41	
15	0.39	1.74	5.80	9.52	
25	0.66	2.88	9.59	15.74	
40	1.08	4.59	15.29	25.15	
50	1.34	5.69	18.96	31.14	
75	2.00	8.54	28.36	46.55	
100	2.73	11.37	37.66	61.98	
200	5.46	22.76	76.02	124.14	
250	6.81	28.40	95.08	153.63	
300	8.28	33.88	114.31	190.00	



## Compact Peristaltic Pump

EM-MiniPump



Embedded design  
-Single channel  
EM-MiniPump01  
(Install sample)

### Features

- Embedded design, space-saved, much easier installation.
- OLED screen, display the current motor speed and working status.
- Mechanical keypad control.

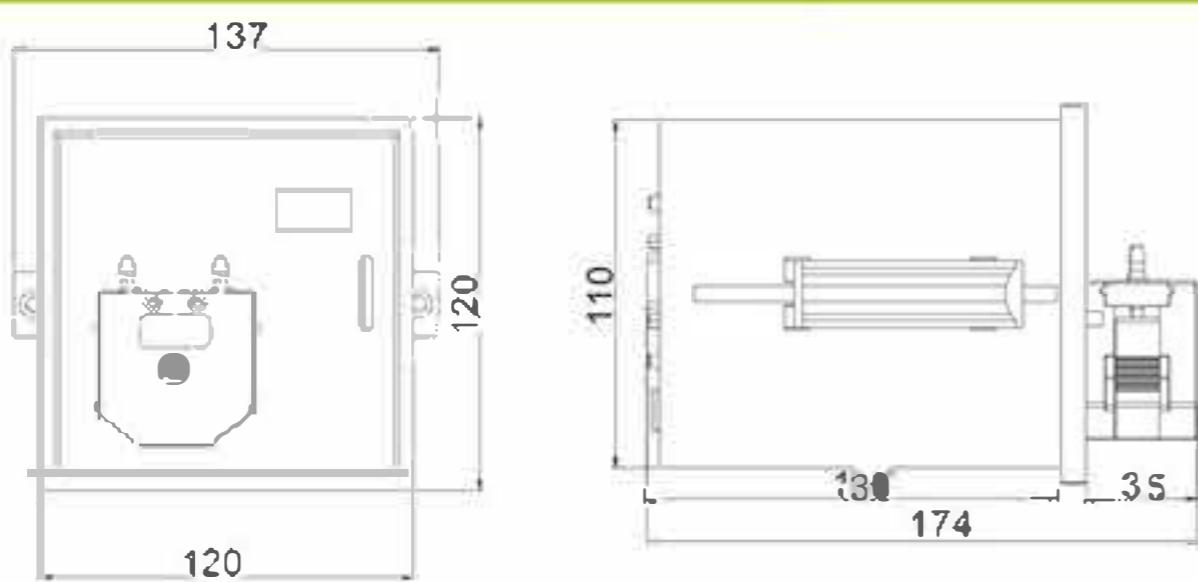
### Model Number

- EM-MiniPump01, EM-MiniPump02

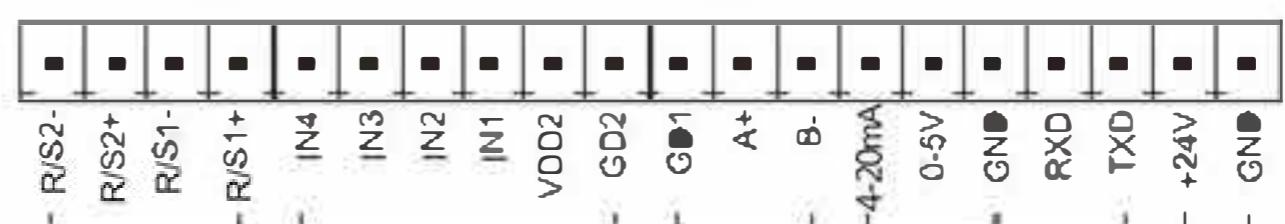
4 kinds of connect tubing way



### Installation Sizes Drawing (Unit: mm)



### External Control Schematic Diagram



### Technical Specifications

Flow rate range	0.0024~190 mL/min	Communication interface	RS485 support MODBUS protocol( RTU mode)
Speed range	0.1~300 rpm, reversible.	Power supply	24V DC power
Speed resolution	0.1rpm	Drive dimension	110×120×120mm (L×W×H)
Control method	Membrane keypad	Weight	0.8 kg
Motor type	Stepper motor	Power consumption	<15 W
Display	OLED display	Condition temperature	0~40°C
External control	Start/stop,direction control ( switch signal) 0-5V, 0-10V, 4-20mA for option(Analog signal)	Relative humidity	< 80%
		IP rate	IP31

### Product Composition and Flow Rate Range

Drive	Motor Type	Pump Head	Tubing Size	Rotation Speed	Flow Rate
EM-MiniPump	Stepper motor	MiniPump01 (4 rollers single channel)	1.6mm Wall thickness tubing: 13#,14#,16#,25# 1mm Wall thickness tubing,Tubing ID: 1mm,2mm,2.5mm,3mm	0.1-300 (rpm)	0.0024-190.00(mL/min)
		MiniPump02 (4 rollers dual channel)	1mm Wall thickness tubing,Tubing ID: 1mm,2mm,2.5mm,3mm		0.005-108.39(mL/min)



## Flow Rates Peristaltic Pump

LabV1, LabV3, LabV6



LabV1, LabV3, LabV6

Laboratory  
Industrial equipment supporting



### Suitable Pump Head



## Flow Rates Peristaltic Pump

V1, V3, V6



V1, V3, V6

Laboratory  
Industrial equipment

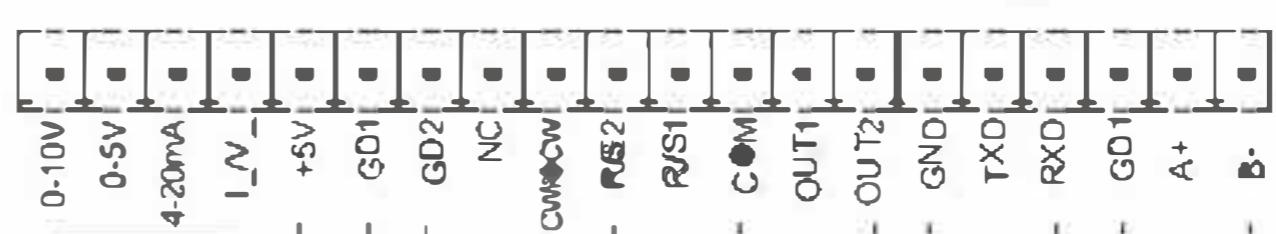
Industrial grade 4.3" true color LCD screen, touch screen control, both Chinese and English interface available.

Dynamic display transferring status. Flow rate data, setting parameters and system configuration display in the same screen.

3 Kinds of working mode: fixed volume metering, fixed time and volume, timer start and stop, meet different transferring and dispensing request.

Intelligent calibration function and online micro adjusting function.

### External Control Schematic Diagram



### Technical Specifications

Flow rate range	LabV1/ V1: 0.000166~570 mL/min LabV3/ V3: 0.000166~1330 mL/min LabV6/ V6: 0.000166~2280 mL/min	Start/stop, direction signal Communication interface	Passive switch signal, such as foot pedal switch Active switch signal: 5V, 12V and 24V for option Rs232, RS485 support MODBUS protocol (RTU mode)
Speed range	0.1-600 rpm	Output interface	Output motor working status (Open-Collector output)
Speed resolution	0.01 rpm	Power supply	AC 220V±10% 50Hz/60Hz (standard) AC 110V±10% 50Hz/60Hz (optional)
Flow rate resolution	0.01 µl	Drive dimension	LabV Series: 261.4×157.3×236.9 mm V Series: 219.6×152×211.6 mm
Flow rate accuracy	<±0.5%	Drive weight (L×W×H)	LabV Series: 4.40 kg V Series: 4.20 kg
Back suction angle	0-360°	Power consumption	< 50W
Outlet pressure	0.1Mpa (0.86-1.0mm wall thickness tubing) 0.1-0.27Mpa (1.6-2.4mm wall thickness tubing)	Condition temperature	0-40°C
Motor type	Stepper motor	Relative humidity	< 80%
Display	Industrial grade 4.3" LCD color display	IP rate	IP31
Control method	Touch screen and Mechanical keypad		
Keypad lifetime	300,000 times		
External speed control signal	0-5V, 0-10V, 4-20mA		

### Product Composition and Flow Rate Range

Flow Rates Peristaltic Pump		Pump Head & Flow Rate (mL/min)			
		YZ1515x	YZ2515x	MC1~MC12(10)	MC1~MC12(6)
Drive & speed	Tubing	13#, 14#, 19#, 16# 25#, 17#, 18#	15#, 24#	Inner diameter: 0.13-3.17mm Wall thickness: 0.86-1mm	
LabV1/V1	0.1-150rpm	0.007~570	0.17~435	0.000166-49(suggest working rotating speed≤150rpm)	0.000185-65(suggest working rotating speed≤150rpm)
LabV3/V3	0.1-350rpm	0.007~1330	0.17~1015		
LabV6/V6	0.1-600rpm	0.007~2280	0.17~1740		

**Product Composition and Flow Rate Range**

Flow Rates Peristaltic Pump		Pump Head & Flow Rate (mL/min)			
		YZ1515x	YZ2515x	MC1~MC12(10)	MC1~MC12(6)
Drive & speed	Tubing	13#, 14#, 19#, 16# 25#, 17#, 18#	15#, 24#	Inner diameter: 0.13-3.17mm Wall thickness: 0.86-1mm	
LabV1/V1	0.1-150rpm	0.007~570	0.17~435	0.000166-49(suggest working rotating speed≤150rpm)	0.000185-65(suggest working rotating speed≤150rpm)
LabV3/V3	0.1-350rpm	0.007~1330	0.17~1015		
LabV6/V6	0.1-600rpm	0.007~2280	0.17~1740		

**Flow Setting Interface**

**External Control Speed Setting Interface**

**Fixed Volume Measurement Setting Interface**

**Fixed Time and Volume Setting Interface**

**Timer Start and Stop Setting Interface**



# Lab2015

(Glory Edition)



**LAB**  
Intelligent  
model

- **Touch screen control**
- **Animation display**
- **ABS engineering plastic housing**

## Lab2015 Product Composition and Flow Rate Range



Drive	Speed Range(rpm)	Pump Head	Tubing Size	Flow Rate(mL/min)
Lab2015	0.1-100rpm	YZ1515x	13#、14#、19#、16# 25#、17#、18#	0.007~380
		YZ2515x	15#、24#	0.17~290
		MC1-MC8(10)	Inner diameter: 0.13~3.17mm Wall thickness: 0.8~1mm	0.000166~32
		MC1-MC8(6)		

## Flow Rates Peristaltic Pump

V6-12L



**304**  
SS Housing

### Features

- | Large flow rate, high precision, intelligent control of liquid transferring.
- | Servo motor drive, accurate control, strong driving force.
- | 304 stainless steel housing, the first choice for high level industrial sites.

### Model Number

- | V6-3L/DZ25-3L
- | V6-6L/DZ25-6L
- | V6-12L/YZ35

### Technical Specifications

Flow rate range	V6-3L: 0.211~3600 mL/min V6-6L: 0.3~6000 mL/min V6-12L: 0.00069~12 L/min	Start/stop,direction signal	Passive switch signal, such as foot pedal switch Active switch signal: 5V, 12V and 24V for option
Speed range	0.1-600 rpm	Output interface	Output motor working status (Open-Collector output)
Speed resolution	0.01 rpm	Power supply	AC 220V±10% 50Hz/60Hz (standard) AC 110V±10% 50Hz/60Hz (optional)
Flow rate resolution	0.01 mL	Drive dimension	V6-3L: 223×152×200mm V6-6L: 283×192×218mm V6-12L: 302×222×275mm
Flow rate accuracy	<±0.5%	Drive weight	V6-3L: 5.02kg; V6-6L: 7.85kg; V6-12L: 13.14kg
Back suction angle	0-360°	Power consumption	V6-3L: < 80W ; V6-6L: < 180W ; V6-12L: < 300W
Outlet pressure	0.3 Mpa	Environment temperature	0-40°C
Motor type	Servo motor	Relative humidity	< 80%
Display	Industrial grade 4.3" color LCD display	IP rate	IP31
Control method	Touch screen and Mechanical keypad		
Keypad lifetime	300,000 times		
External speed control signal	0-5V,0-10V,4-20mA		

### Product Composition and Flow Rate Range

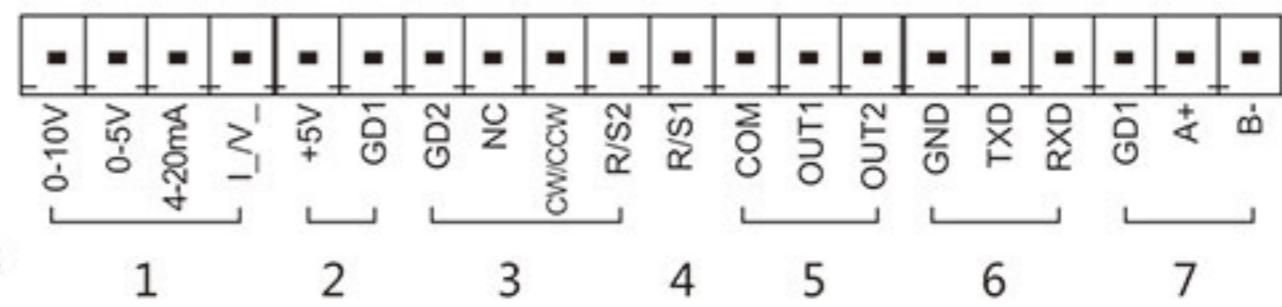
Drive	Motor Type	Pump Head	Tubing Size	Speed Range(rpm)	Flow Rate(mL/min)
V6-3L	Servo Motor	DZ25-3L	15", 24", 35", 36"	0.1-600	0.211~3600
V6-6L		DZ25-6L	15", 24", 35", 36"		0.3~6000
V6-12		YZ35	26", 73", 82"		0.69~12000



V Series peristaltic pump has various external control interface, can meet different equipment supporting requirements.

### | External control interface definition

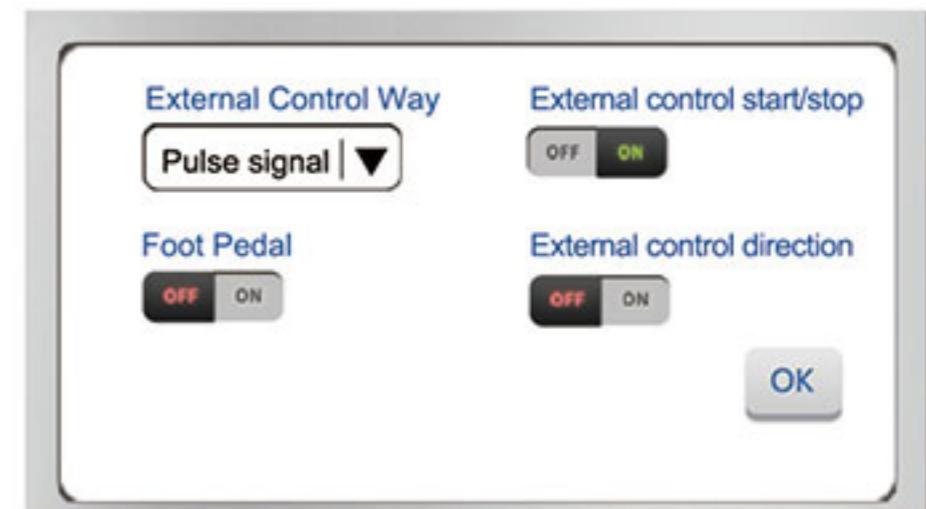
1. Analog signal input port: Choose the external control speed signal from the external control setting interface. Turn on the external control speed function, control the motor speed range through the analog signal.
2. Internal isolation 5VDC output.
3. External control start/stop,direction signal input port: active signal input.
4. R/S1 external control start/stop signal input port: passive signal input.
5. Motor running status output port: output current running status of the motor.
6. RS232 communication interface: choose RS232 in communication setting interface, this port is effective.
7. RS485 communication interface: choose RS485 in communication setting interface, this port is effective.



### V Series peristaltic pump external control setting interface.

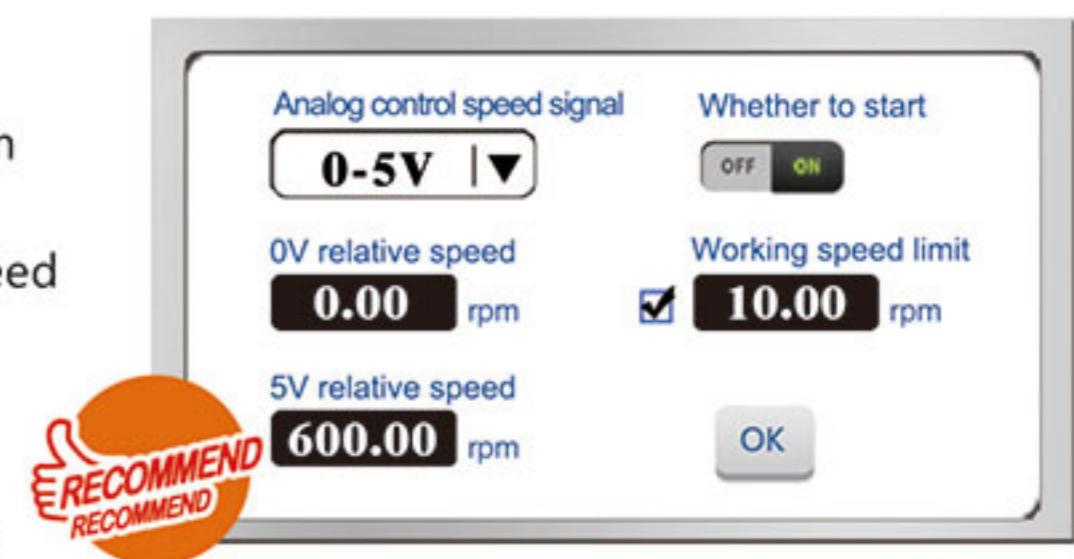
#### | Choose external control start/stop,direction signal

1. Can respectively set external control start/stop or reversing switch whether effective or not.
2. Can choose control mode according to requirement: pulse mode or level mode.
3. Can set the foot switch whether effective or not.
4. Can choose switch value signal's high level values according to customers' main control equipment: 5V(default),12V,24V.



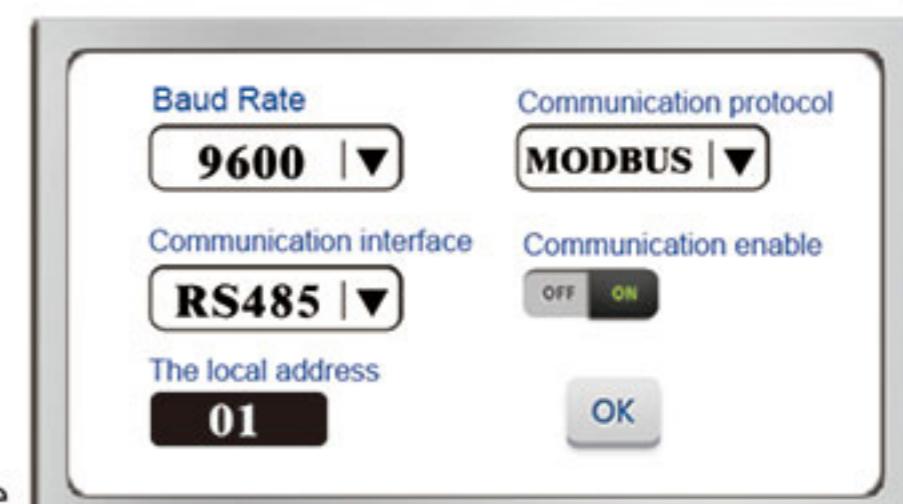
#### | Programmable external control speed setting

1. Can choose analog signal source according to requirements: 0-5V, 0-10V, 4-20mA.
2. When the signal source is chosen, can choose maximum speed and minimum speed which corresponding to the signal source's maximum value and minimum value according to actual demand, to reach userdefined rotate speed range purpose.
3. Working speed limit is at the situation that the linear relation of analog quantity signal and rotating speed keeps invariant, set peristaltic pump's maximum working rotate speed. This setting can avoid production accident caused by sudden change of transfer fluid amount with the sudden change of external analog signal.

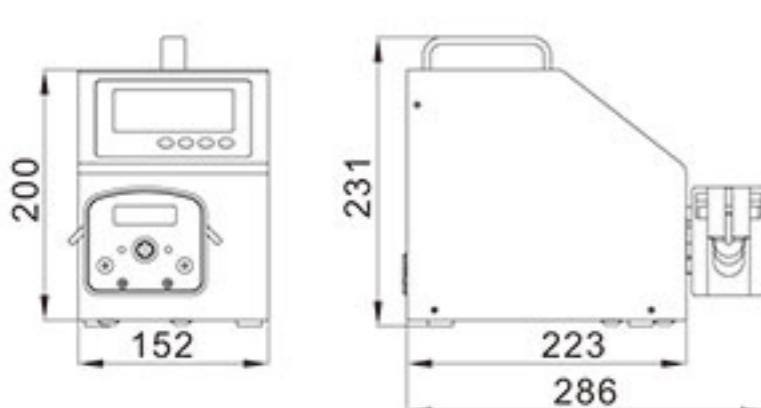


#### | Communication setting

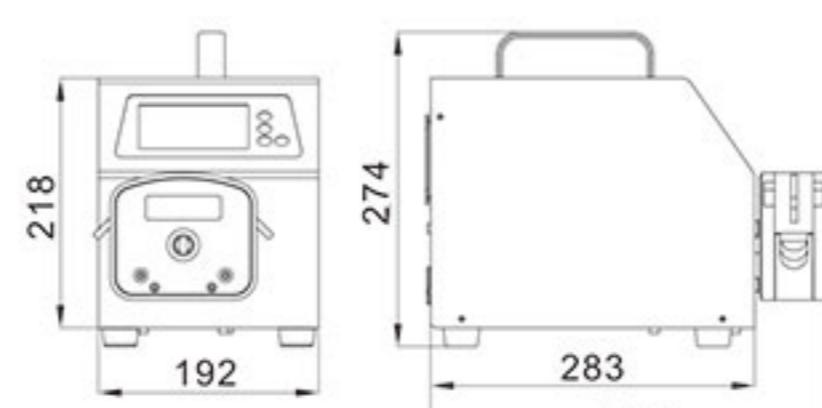
1. Support RS232 and RS485 interface, can be chosen in software interface.
2. Support various Baud rate : 2400bps, 4800bps, 9600bps, 19200bps.
3. Can choose standard modbus communication protocol or Shenchen communication protocol to control, modbus communication protocol is suitable to match with industrial site HMI, PLC or other upper computer which support standard modbus communication protocol; Shenchen communication protocol is suitable to match with single chip micro computer or upper computer on computer programme.



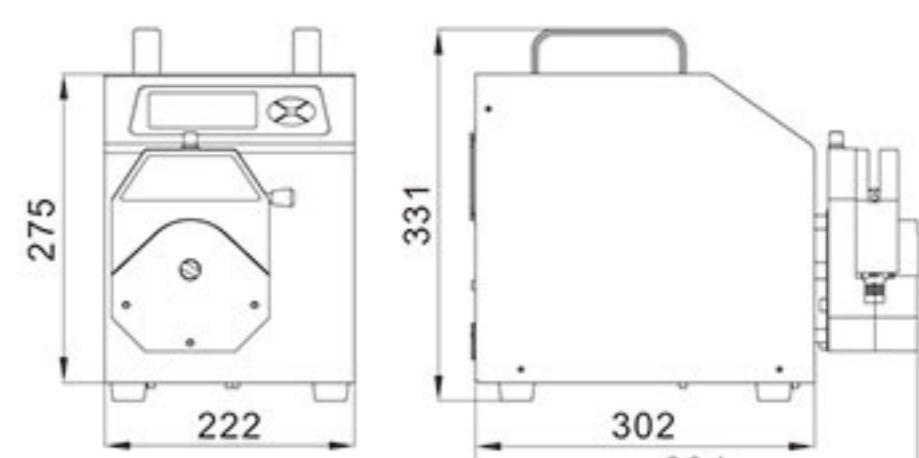
### Installation Sizes Drawing (Unit: mm)



V6-3L



V6-6L



V6-12L

## Flow Rates Peristaltic Pump

**TC50**



Special for flow injection analyzer

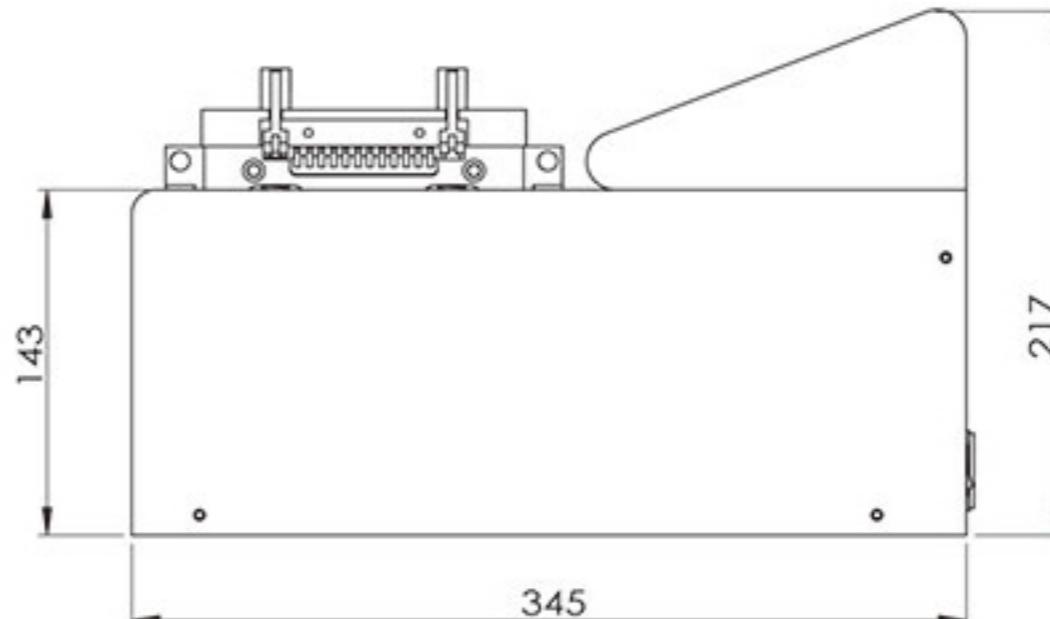
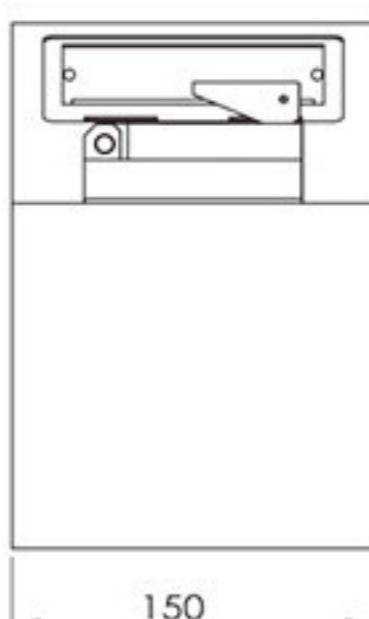
### Features

- | Special for flow injection analyzer.
- | Overall block design to improve the accuracy between channels.
- | The first choice for multichannel, high precision, and micro flow rate transferring.

**Model Number | TC50**



## Installation Sizes Drawing (Unit: mm)



## Technical Specifications

Flow rate range	0.0016~10.5 mL/min	Start/stop, direction signal	Passive switch signal, such as: foot pedal switch Active switch signal: 5V, 12V, 24V for option
Speed range	0.1-50 rpm	Communication interface	RS232, RS485 support MODBUS protocol(RTU mode)
Speed resolution	0.01rpm	Output interface	Output motor working status (Open–Collector output)
Flow rate resolution	0.01μl	Power supply	AC 220V±10% 50Hz/60Hz (Standard) AC 110V±10% 50Hz/60Hz (Optional)
Flow errors between channels	<3%	Drive dimension	345×150×217mm (L×W×H)
Back suction angle	0-360°	Drive weight	8.02 kg
Outlet pressure	0.15 Mpa	Power consumption	< 50 W
Motor type	Servo motor	Condition temperature	0-40°C
Display	Industrial grade 4.3" color LCD display	Relative humidity	< 80%
Control method	Touch screen and Mechanical keypad	IP rate	IP31
Keypad lifetime	300,000 times		
External speed control signal	0-5V, 0-10V, 0-20mA for option		

## Product Composition and Flow Rate Range

Drive	Motor Type	Pump Head	Tubing Size	Speed Range(rpm)	Flow Rate(mL/min)
TC50	Servo Motor	MT12	0.51×0.9	0.1-50	0.0016~0.84
			1.02×0.86		0.005~2.5
			2.06×0.86		0.015~7.5
			2.54×0.86		0.020~10.5



## Dispensing Peristaltic Pump

LabF1, LabF3, LabF6



**ABS**  
Engineering Plastic Housing

| LabF1, LabF3, LabF6

| Medicine and chemical dispensing, such as oral liquid, diagnostic reagents.

| Cosmetic dispensing, such as perfume, lip gloss.



① Filling Countersunk

② Filling Nozzle

③ Foot Pedal Switch

### Suitable Pump Head



## Dispensing Peristaltic Pump

F1, F3, F6



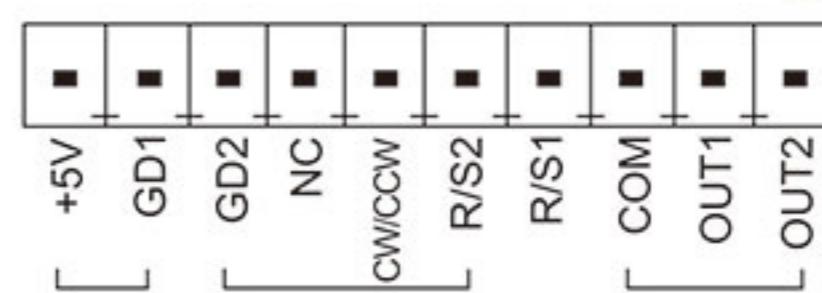
### Features

- | Imported 4.3" industrial grade color LCD screen display, with touch screen control.
- | Can preset dispensing volume, dispensing time, pause time and copy numbers.
- | With intelligent calibration function and online micro adjusting function.
- | The pump can store 60 commonly used filling modes.
- | Back suction angle setting, avoid liquid drop off when the pump stops working.
- | New flow rate mode, can be used for continuous transferring.
- | Can communicate with balance, closed-loop control.

### Model Number

| F1, F3, F6

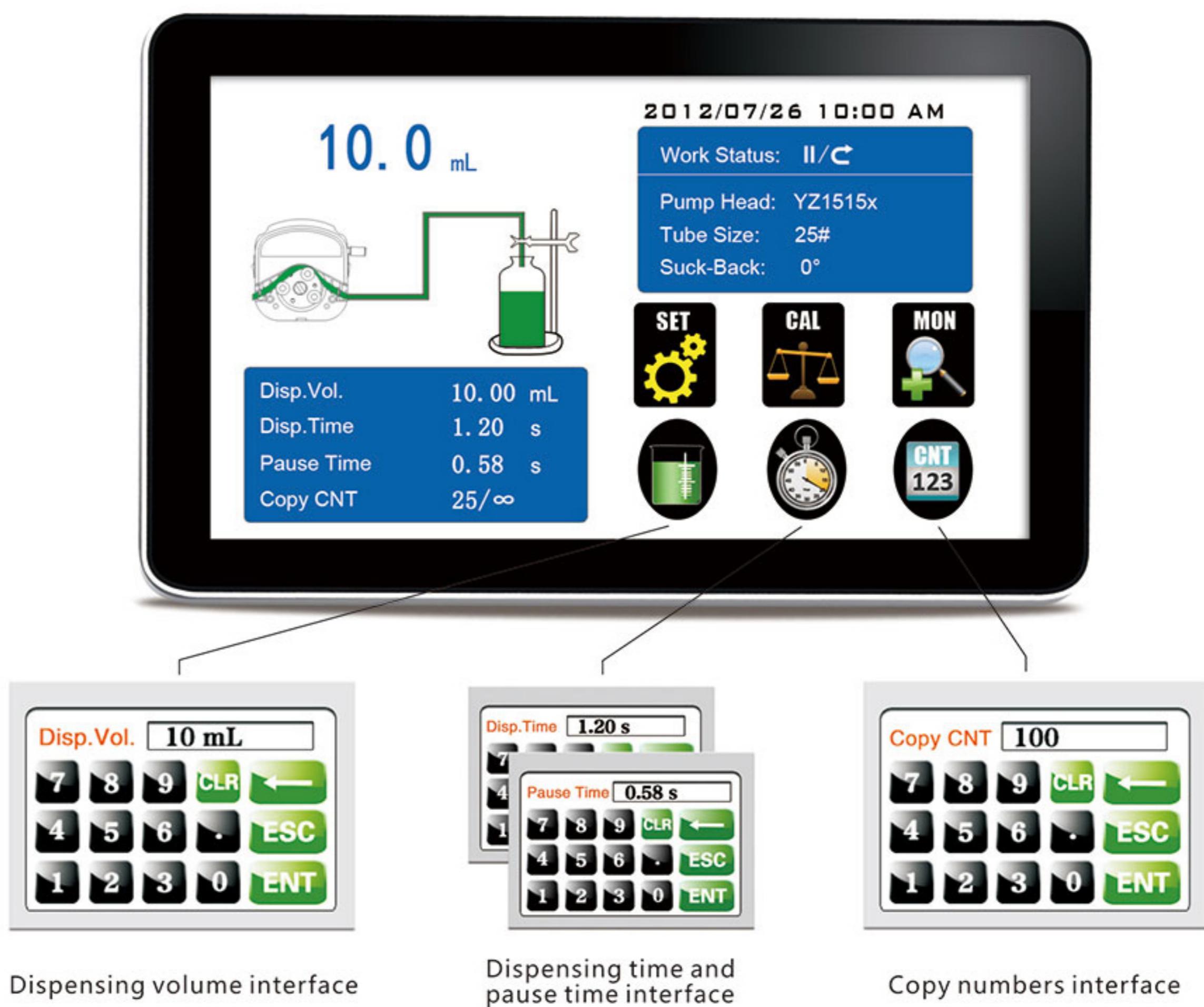
### External Control Schematic Diagram



Technical Specifications			
Flow rate range	LabF1/F1: 0.00166~570mL/min LabF3/F3: 0.00166~1330mL/min LabF6/F6: 0.00166~2280mL/min	Keypad lifetime	300,000 times
Speed range	1-600 rpm	Start/stop, direction signal	Passive switch signal, such as foot pedal switch
Speed resolution	0.01 rpm	Output interface	Active switch signal: 5V, 12V and 24V for option
Dispensing volume range	0.1-9999.99 mL	Power supply	Output motor working status (Open-Collector output)
Dispensing volume resolution	0.01 mL	Outlet pressure	AC 220V±10% 50Hz/60Hz (Standard)
Dispensing time	0.5-9999.99 s	Drive dimension (L×W×H)	AC 110V±10% 50Hz/60Hz (Optional)
Pause time	0.5-9999.99 s	Drive weight	0.1Mpa(0.86~1.0mm wall thickness tubing)
Time resolution	0.01 s	Power consumption	0.1~0.27Mpa(1.6~2.4mm wall thickness tubing)
Copy numbers	1-9999 numbers, setting '0' means unlimited	Condition temperature	LabF Series: 261.4×157.3×236.9 mm
Back suction angle	0-360°	Relative humidity	F Series: 219.6×152×211.6mm
Dispensing accuracy	<±0.5%	IP rate	LabF Series: 4.40 kg
Motor type	Stepper motor		F Series: 4.20 kg
Display	Industrial grade 4.3" color LCD display		<50W
Control method	Touch screen and Mechanical keypad		0-40°C
			<80%
			IP31

### Product Composition and Flow Rate Range

Dispensing Peristaltic Pump		Pump Head & Flow Rates (mL/min)			
		YZ1515x	YZ2515x	MC1~MC12(10)	MC1~MC12(6)
Drive & speed	Tubing	13", 14", 19", 16" 25", 17", 18"	15", 24"	Inner diameter: 0.13-3.17mm Wall thickness: 0.86-1mm	
LabF1/F1	1-150rpm	0.07~570	1.7~435	0.00166-49(suggestion working speed≤150rpm)	0.00185-65(suggestion working speed≤150rpm)
LabF3/F3	1-350rpm	0.07~1330	1.7~1015		
LabF6/F6	1-600rpm	0.07~2280	1.7~1740		



## Dispensing Peristaltic Pump

F6-12L



### Features

- | Suitable for large flow rate, high efficiency, high precision filling.
- | Servo motor drive, accurate control, strong driving force.
- | 304 stainless steel drive housing can support the filling line.
- | New flow rate mode, can be used for continuous transferring.

### Model Number

- | F6-3L/DZ25-3L
- | F6-6L/DZ25-6L
- | F6-12L/YZ35

### Technical Specifications

Flow rate range	F6-3L: 2.11~3600 mL/min F6-6L: 3.0~6000 mL/min F6-12L: 0.0069~12 L/min	Control method	Touch screen and Mechanical keypad
Speed range	1-600 rpm	Keypad lifetime	300,000 times
Speed resolution	0.01 rpm	Start/stop, direction signal	Passive switch signal, such as foot pedal switch
Dispensing volume range	0.1-9999.99 mL	Output interface	Active switch signal: 5V, 12V and 24V for option
Dispensing volume resolution	0.01 mL	Power supply	Output motor working status (Open-Collector output)
Dispensing time	0.5-9999.99 s	Drive dimension	AC 220V±10% 50Hz/60Hz (Standard)
Pause time	0.5-9999.99 s		AC 110V±10% 50Hz/60Hz (Optional)
Time resolution	0.01 s		F6-3L: 223×152×200mm
Copy numbers	1-9999 times, setting '0' means unlimited	Drive weight	F6-6L: 283×192×218mm
Back suction angle	0-360°	Power consumption	F6-12L: 302×222×275mm
Outlet pressure	0.3 Mpa	Condition temperature	F6-3L: <80W ; F6-6L: <180W ; F6-12L: <300W
Dispensing accuracy	<±0.5%	Relative humidity	0-40°C
Motor type	Servo motor	IP rate	<80%
Display	Industrial grade 4.3" color LCD display		IP31

### Product Composition and Flow Rate Range

Drive	Motor Type	Pump Head	Tubing Size	Speed Range(rpm)	Flow Rate(mL/min)
F6-3L	Servo Motor	DZ25-3L	15", 24", 35", 36"	1-600	2.11~3600
F6-6L		DZ25-6L	15", 24", 35", 36"		3.0~6000
F6-12L		YZ35	26", 73", 82"		6.9~12000



### LabF6/F6 Filling Volume Reference Parameter(Media is water)

Drive	Pump Head	Tubing	Filling Volume (mL)	Filling Time(s)	Filling Accuracy (±%)	Output(pcs/min)	Motor Speed(rpm)
LabF6/F6	YZ1515x	13#	0.1	0.5	±5ul	40	204.083
		13#	0.3	0.7	1.5	35	426.251
		13#	0.5	1	0.8	30	516.081
		13#	1	2	0.5	20	517.152
		14#	2	1	1	30	446.724
		14#	3	1.5	0.8	24	446.479
		19#	5	1.2	1	27	454.919
		16#	7	1	0.5	30	457.705
		25#/15#	10	1	1	30	303.426
		25#/15#	15	1	0.8	30	461.273
	YZ2515x	25#/15#	20	1.2	0.5	27	518.945
		17#/24#	30	1.2	0.8	27	462.725
		17#/24#	50	2	0.5	20	461.595
		18#	80	2.5	0.5	17	427.274
		18#	100	3	0.5	15	446.583
F6-3L	DZ25-3L	15#	16	1	0.5	30	443.540
		24#	30	1.2	1.0	27	454.877
		35#	150	4	0.6	12	447.940
		36#	200	4	0.6	12	481.802
F6-6L	DZ25-6L	15#	80	4	0.4	12	396.800
		24#	150	4	0.4	12	440.700
		35#	200	3.2	0.5	14	439.540
		36#	300	3.5	0.5	13	473.208
F6-12L	YZ35	26#	150	3	0.5	15	423.254
		73#	300	3	0.5	15	457.805
		82#	500	3	0.5	15	458.451

### F6 Series Filling Accuracy Reference Parameter(Media is water)

Drive	Pump Head	Tubing	Filling Volume	Filling Time	Actual Filling Volume(mL)												Filling Accuracy	
F6-3L	DZ25-3L	15"	16mL	1s	15.97	15.97	16.00	16.06	15.97	15.92	15.96	16.02	16.01	15.97	-0.50%	0.50%		
					15.98	16.00	16.04	16.08	15.92	15.95	16.01	16.01	15.97	15.97				
		24"	30mL	1.2s	29.98	30.12	30.20	30.29	30.06	29.94	30.11	30.18	30.02	29.99	-0.20%	1.00%		
					30.23	30.24	30.12	29.99	30.12	30.23	30.20	30.30	30.19	30.11				
		35"	150mL	4s	149.50	149.50	150.10	150.00	149.80	149.00	149.70	149.50	150.10	149.60	-0.15%	0.60%		
					149.00	149.90	149.70	149.10	149.50	150.00	150.10	150.10	149.60	149.40				
		36"	200mL	4s	199.70	200.30	200.10	200.30	200.00	200.00	200.70	200.80	200.70	200.40	-0.67%	0.07%		
					200.30	200.00	200.30	200.80	200.90	200.70	200.80	200.40	200.50	200.20				
F6-6L	DZ25-6L	15"	80mL	4s	80.2	80.0	80.3	80.2	80.1	80.1	80.2	80.1	80.2	80.1	-0.125%	0.375%		
					80.1	79.9	80.1	79.9	80.0	80.1	19.9	80.1	80.1	80.0				
		24"	150mL	4s	149.9	150.2	150.0	150.1	150.0	150.3	150.0	150.1	150.3	150.0	-0.067%	0.200%		
					149.9	150.1	150.0	150.0	150.1	150.0	150.1	149.9	150.2	150.2				
		35"	200mL	3.5s	199.7	199.9	200.2	200.2	200.2	199.6	199.8	199.8	200.1	199.9	-0.400%	0.100%		
					199.5	199.2	199.5	199.9	199.5	199.3	199.8	199.3	199.6	199.9				
		36"	300mL	3.5s	300.4	300.1	300.3	300.3	300.4	300.1	300.3	300.4	300.6	300.2	-0.167%	0.200%		
					300.2	300.0	300.1	300.2	300.2	299.9	299.5	300.5	300.5	300.6				
F6-12L	YZ35	26"	150mL	3s	149.3	150.3	149.6	150.2	150.5	150.1	150.5	150.1	150.5	150.0	-0.47%	0.33%		
					150.4	149.9	150.4	150.0	150.3	149.8	150.3	149.9	150.4	150.0				
		73"	300mL	3s	299.9	299.8	300.0	300.1	300.4	300.2	300.4	300.4	300.6	300.5	-0.07%	0.27%		
					300.8	300.6	300.5	300.5	300.6	300.7	300.5	300.6	300.6	300.6				
		82"	500mL	3s	500.0	497.8	499.7	498.3	498.4	499.5	498.2	499.7	499.2	498.4	-0.44%	0.38%		
					499.5	498.3	501.5	501.9	500.0	501.8	501.1	500.5	501.6	499.6				

## Low Pulsation Dispensing Peristaltic Pump



IF3

Model Number | IF3

### Installation Sizes Drawing (Unit: mm)

#### Features

Servo motor drive, high precision, low pulsation dispensing peristaltic pump.

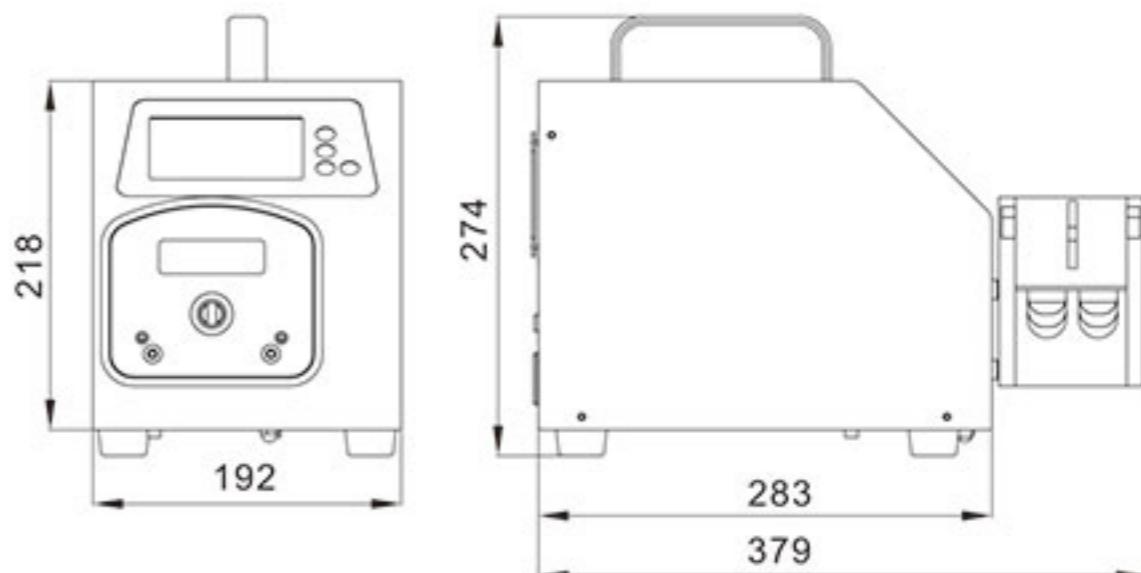
The low pulsation pump head is special for high precision filling. Through the phase difference between the two sets of rollers, make the fluid peaks and valleys complementary, then reduce the pulsation of the fluid.

Adaptive pressure tubing space, extend the tubing lifetime effectively.

Achieving high precision dispensing of micro flow rate.

| New flow rate mode, can be used for continuous transferring.

| Can communicate with balance, closed-loop control.



### Product Composition and Flow Rate Range

Drive	Motor Type	Pump Head	Tubing	Speed Range(rpm)	Flow Rate(mL/min)
IF3	Servo motor	DY15	13", 14", 19", 16", 25", 17", 18"	1-350	0.1~3337
		DY25	15", 24", 35", 36"		4.2~4340

### Filling Volume Reference Parameter(Media is water)

Tubing	Filling Volume	Filling Time	Actual Filling Volume(mL)												Filling Accuracy	
			0.5mL	0.5s	1.0037	1.0000	1.0026	1.0003	1.0031	1.0015	1.0000	1.0007	1.0023	1.0035		
14"	0.5mL	0.5s	0.5003	0.5010	0.4982	0.5015	0.5015	0.5010	0.5014	0.5005	0.4981	0.4998	1-350	0.1~3337	-0.37%	0.32%
			0.5025	0.4983	0.5024	0.5021	0.5020	0.5004	0.5005	0.4997	0.4977	0.5008				
14"	1mL	1s	1.0037	1.0000	1.0026	1.0003	1.0031	1.0015	1.0000	1.0007	1.0023	1.0035	1-350	4.2~4340	-0.44%	0.42%
			1.0002	1.0020	0.9968	1.0010	0.9986	1.0026	1.0030	1.0029	1.0023	1.0017				
14"	2mL	1s	2.0020	2.0060	2.0039	2.0037	2.0047	1.9944	2.0062	2.0040	1.9951	2.0060	1-350	0.1~3337	-0.58%	0.60%
			2.0036	1.9940	2.0024	2.0086	1.9946	2.0005	1.9951	2.0068	1.9971	1.9965				
19"	3mL	1s	3.0058	2.9935	3.0092	3.0008	2.9927	3.0072	3.0046	2.9914	3.0040	3.0000	1-350	4.2~4340	-0.33%	0.31%
			2.9902	3.0048	3.0008	2.9919		3.0012	3.0084	2.9915	2.9990	3.0051				
16"	5mL	1s	5.0215	4.9982	5.0145	5.0038	4.9864	5.0183	4.9962	5.0227	5.0158	4.9806	1-350	0.1~3337	-0.39%	0.50%
			5.0248	5.0070	4.9861	5.0108	4.9995	5.0080	5.0044	4.9868	5.0231	4.9977				
25"	10mL	1s	10.02	10.04	10.00	9.98	10.02	10.03	10.04	10.04	10.01	9.99	1-350	0.1~3337	-0.20%	0.40%
			10.00	10.02	10.02	10.04	9.99	9.98	10.00	10.04	10.02	10.03				
25"	15mL	1s	15.02	14.97	14.97	14.94	15.00	15.00	14.94	14.95	14.96	14.99	1-350	4.2~4340	-0.47%	0.13%
			14.96	14.95	14.96	14.99	14.98	14.94	14.93	14.93	14.98	14.96				
17"	30mL	1s	29.92	30.01	29.99	29.91	29.83	29.86	29.91	29.91	29.91	29.89	1-350	0.1~3337	-0.57%	0.20%
			29.88	29.96	30.03	30.06	30.02	30.02	30.06	29.96	29.96	29.83				
18"	100mL	2.5s	99.80	99.90	99.80	99.90	100.00	100.10	100.10	100.00	100.10	100.00	1-350	0.1~3337	-0.20%	0.30%
			99.80	100.00	100.10	100.20	99.90	100.10	100.00	100.30	100.10	100.10				
15"	10mL	1s	9.97	10.01	9.96	9.98	10.01	9.96	9.97	9.99	9.96	9.96	1-350	0.1~3337	-0.60%	0.10%
			10.00	9.94	9.97	10.00	9.96	9.97	10.00	10.00	10.01	9.97				
24"	30mL	1s	29.90	29.80	30.10	29.90	29.90	30.00	29.90	29.90	30.00	29.90	1-350	0.1~3337	-0.67%	0.33%
			29.90	29.90	29.90	29.90	29.90	29.80	30.00	29.90	29.90	30.00				
35"	70mL	1.2s	69.80	69.90	69.90	69.90	69.70	70.10	70.00	69.70	69.70	69.90	1-350	0.1~3337	-0.43%	0.43%
			69.90	70.10	70.00	69.90	70.30	69.70	70.10	69.70	69.70	69.90				
36"	100mL	2s	99.80	99.90	99.80	99.80	100.00	99.90	99.90	99.90	99.90	99.90	1-350	0.1~3337	-0.20%	0.10%
			99.80	99.90	99.90	99.90	100.00	100.10	99.80	100.10	99.90	99.90				

## Split Type Filling System

**CF600**



### Features

- | Split design, adding or deleting filling units freely.
- | One controller can control 1-16 filling units.
- | Each filling unit can receive stop filling signal when bottle absent.
- | You can check the working status of the filling units from controller.

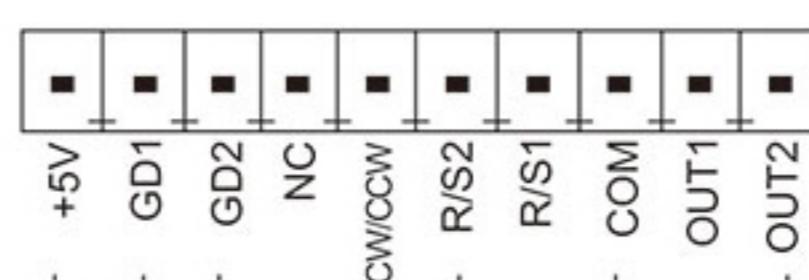
### Model Number

- | CF600, CF600 Plus, CF600II, CF600II Plus

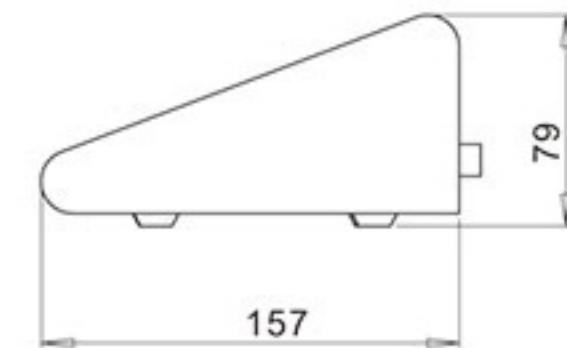
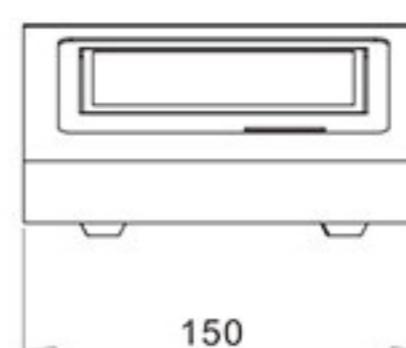
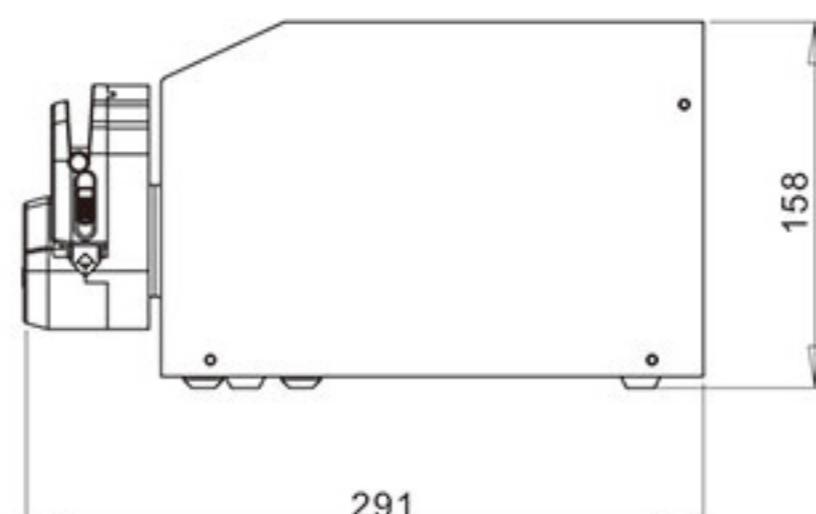
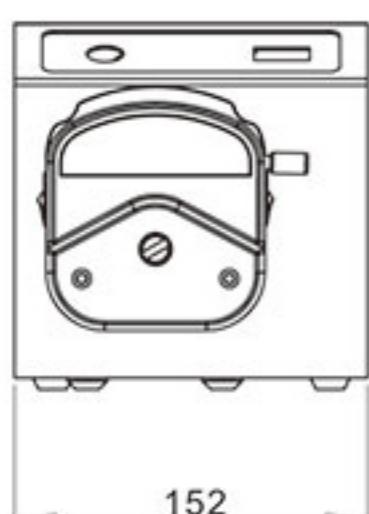
### Typical Application

- | Laboratory dispensing | Industry filling

### External Control Schematic Diagram



### Installation Sizes Drawing (Unit: mm)



Drive Dimension Drawing

Controller Dimension Drawing



## Split Type Filling system

**CF350**

**304**  
SS Housing



### Features

- | Servo motor drive, precision control
- | Split type design, space-saving, easy installation.
- | Use low pulsation pump head to reduce the pulsation of the fluid effectively.
- | Suitable for micro volume high precision filling.

### Model Number

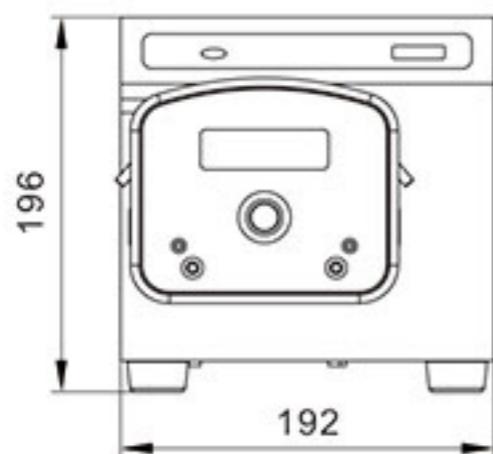
- | CF350, CF350 Plus, CF600III
- | CF600 PlusIII, CF600IV, CF600 PlusIV



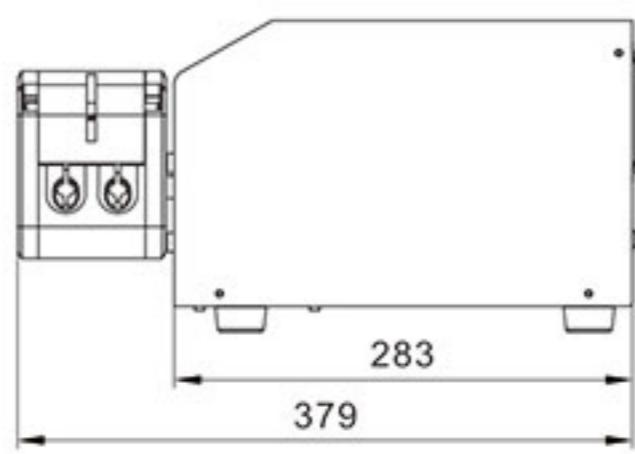
Control Unit

Filling Unit

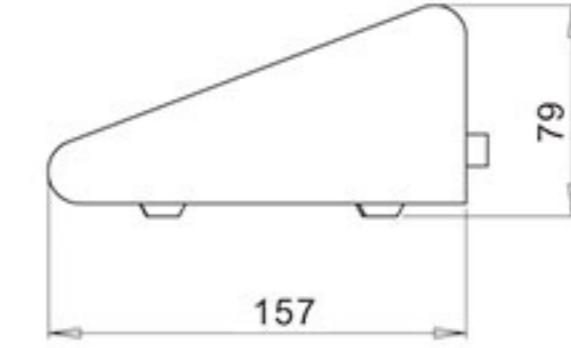
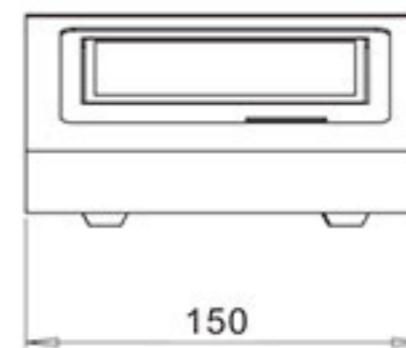
### Installation Sizes Drawing (Unit: mm)



Drive Dimension Drawing



Controller Dimension Drawing



The pump type suffixed with "Plus" support MODBUS communication protocol.

Drive	Pump Head	Flow Rate (mL/min)	Motor Type	Drive Dimension (L×W×H)	Power Consumption	Drive Weight
CF600 CF600Plus	YZ1515x	0.07~2280	Stepper motor	237.4×152×158mm	Each unit<50W	4.2kg
	YZ2515x	1.7~1740				
CF600 II CF600Plus II	DZ25-3L	2.11-3600	Stepper motor	237.4×152×158mm	Each unit<80W	4.95kg
	DZ25-6L	3.0-6000				
CF600 III CF600Plus III	DY15	0.1-3337	Servo motor	283×192×196mm	Each unit<180W	7.8kg
	DY25	4.2-4340				
CF600 IV CF600PlusIV	YZ35	6.9-12000	Servo motor	310×228×248mm	Each unit<300W	11.9kg
	YZ35-PPS					



## Integrated Filling System

DF600



### Features

- | Integrated design, one controller can control 4 groups (total 16) filling units.
- | It can support the production filling line, store 60 commonly used filling modes.
- | Each filling unit can independently receive stop filling signal when bottle absent.

### Model Number

- | DF600, Df600II, DF600 Plus, DF600 PlusII

### Typical Application

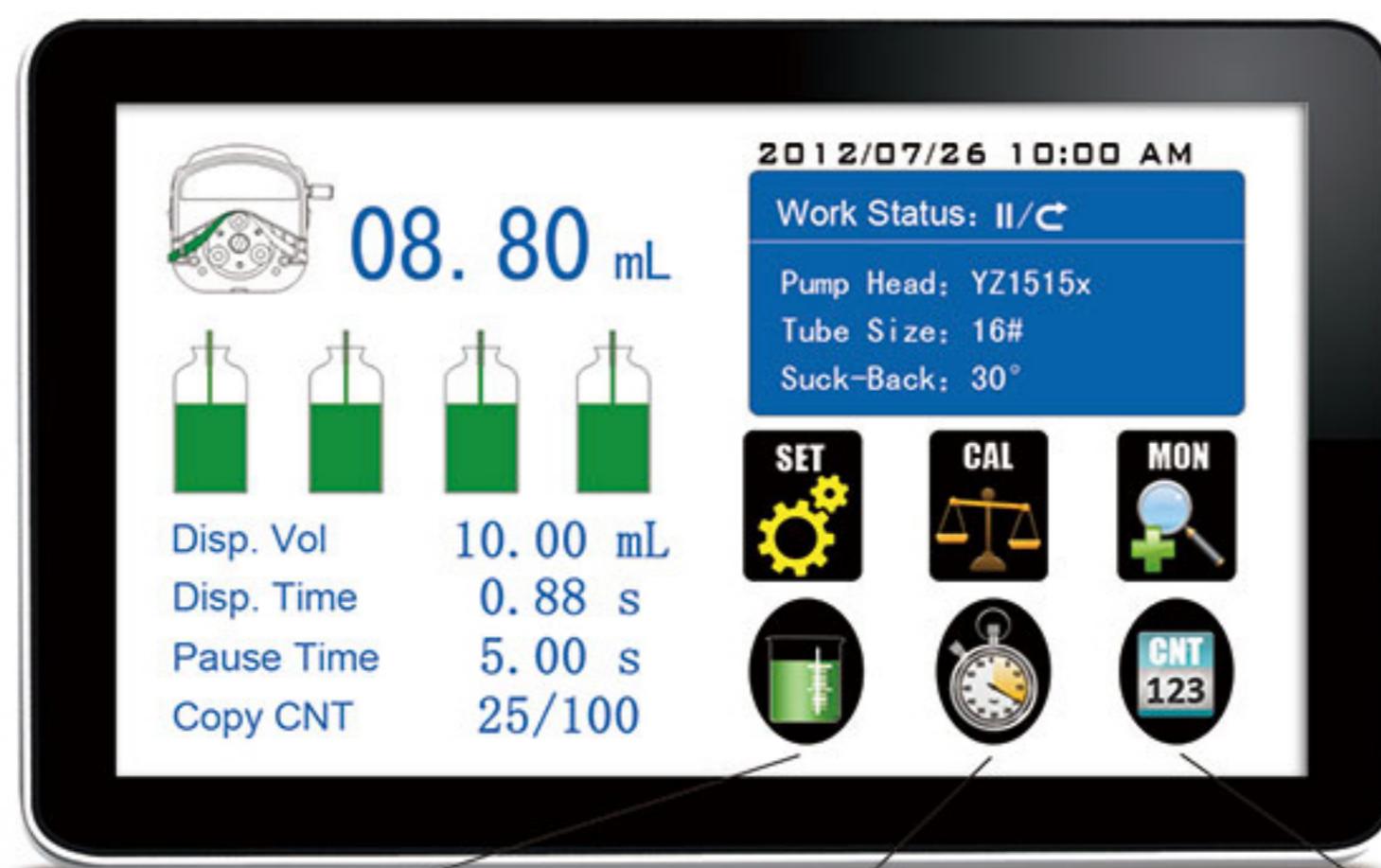
- | Pharmaceutical, health product filling, diagnostic reagent dispensing.
- | Food, beverage filling.
- | Cosmetic filling.

DF600 Plus

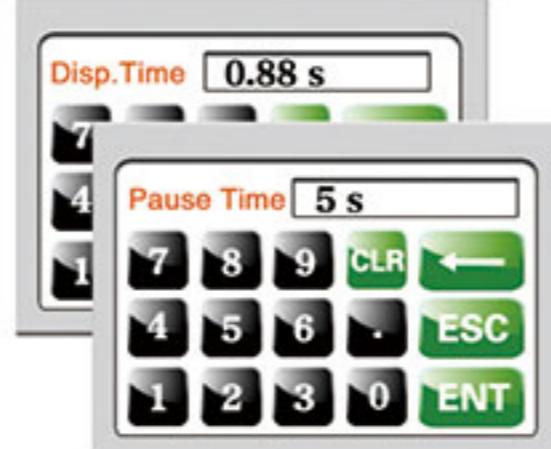


### Features

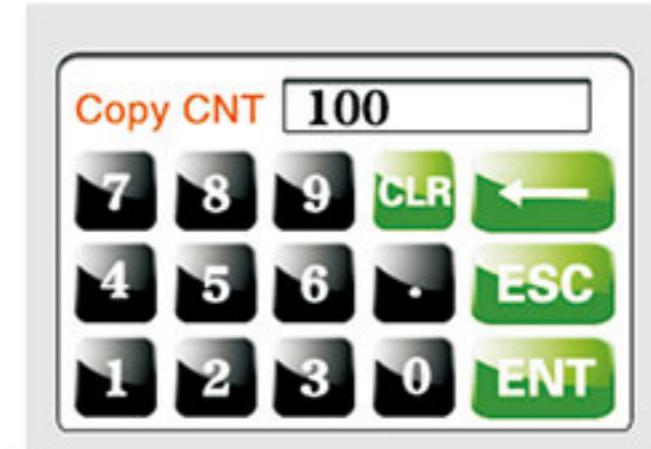
Connected with HMI, PLC etc, industrial control system, one controller can control 4 groups (total 16) filling units. It can display the details of 16 filling units in the HMI, widely used in industrial control application.



Dispensing volume interface



Dispensing time and pause time interface



Copy numbers interface



## Integrated Filling System

**DF600IV(servo motor control)**

**304**  
SS Housing



**DF350(servo motor control)**

**304**  
SS Housing



### Product Introduction

DF servo control series is integrated type intelligent filling system with high precision and low pulsation driven by servo motor. It is composed by control unit and integrated type filling units, each group have 4 filling units, total 16 filling units. This system use imported 4.3" industrial grade true color display with touch screen control, can preset filling volume, filling time, pause time, copy numbers and back-suction angle, animation display working status, filling data, setting parameter, system configuration display at the same screen; with intelligent calibration and online micro adjust function. Can connect foot pedal and receive switch signal, realize long-distance control. With motor working status output signal, can let other equipment realtime monitor the current filling status of peristaltic pump. This filling system use servo motor, and high precision, low pulsation pump head to make the filling precision higher, up to 0.1%-0.6%, make the micro volume and big volume high precision filling come true.

### Model Number

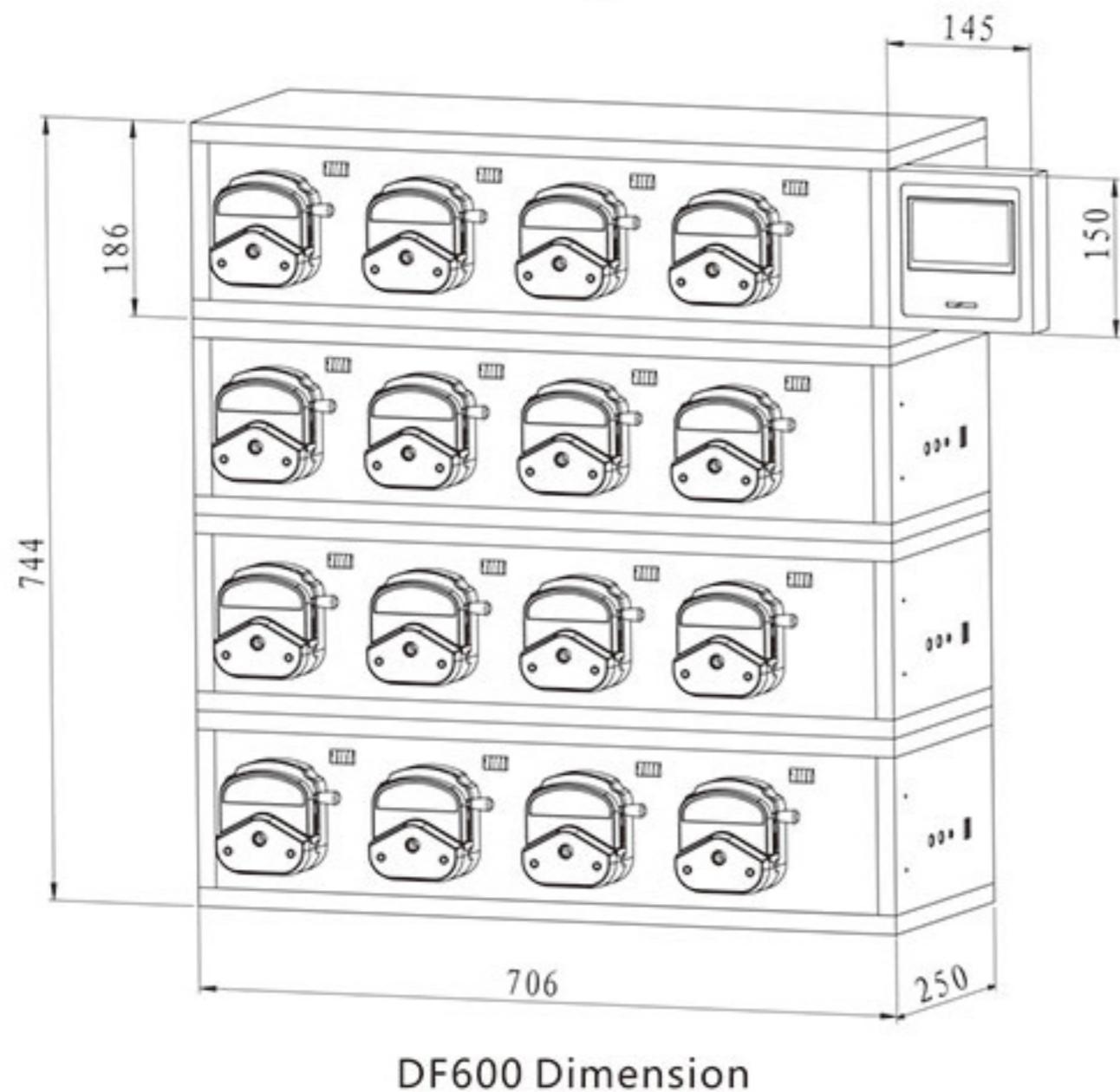
DF350	DF350 Plus
DF600III	DF600 PlusIII
DF600IV	DF600 PlusIV

### Typical Application

- | Pharmaceutical, health product filling, diagnostic reagent dispensing.
- | Food, beverage filling.
- | Cosmetic filling.

## Integrated Filling System

Installation Sizes Drawing(Unit: mm)

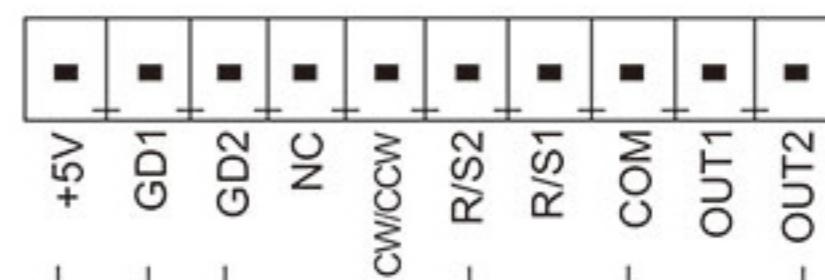


DF600 Dimension

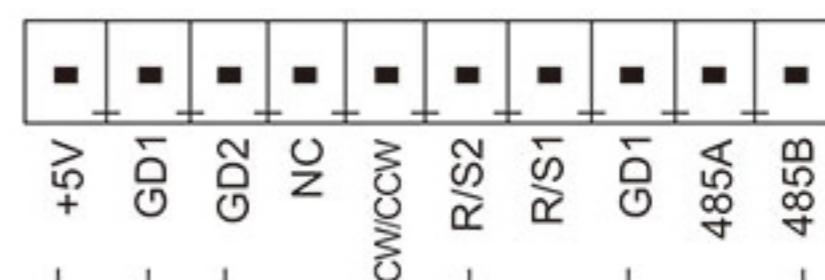
External Control Schematic Diagram

DF600 has filling status output signal, can be monitored by other equipments.

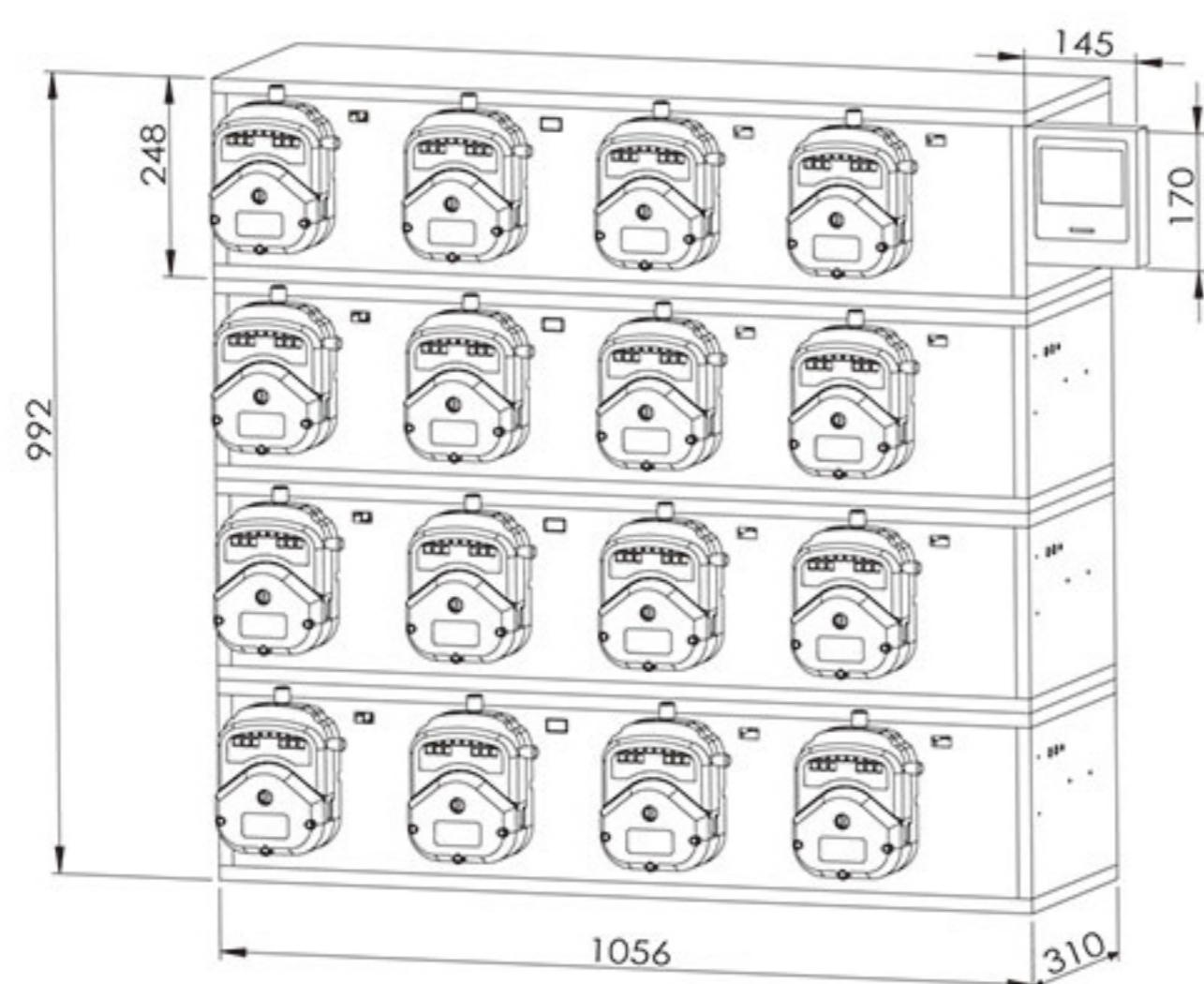
DF600 plus adopt standard MODBUS communication protocol, can be well connected with HMI to achieve logic control.



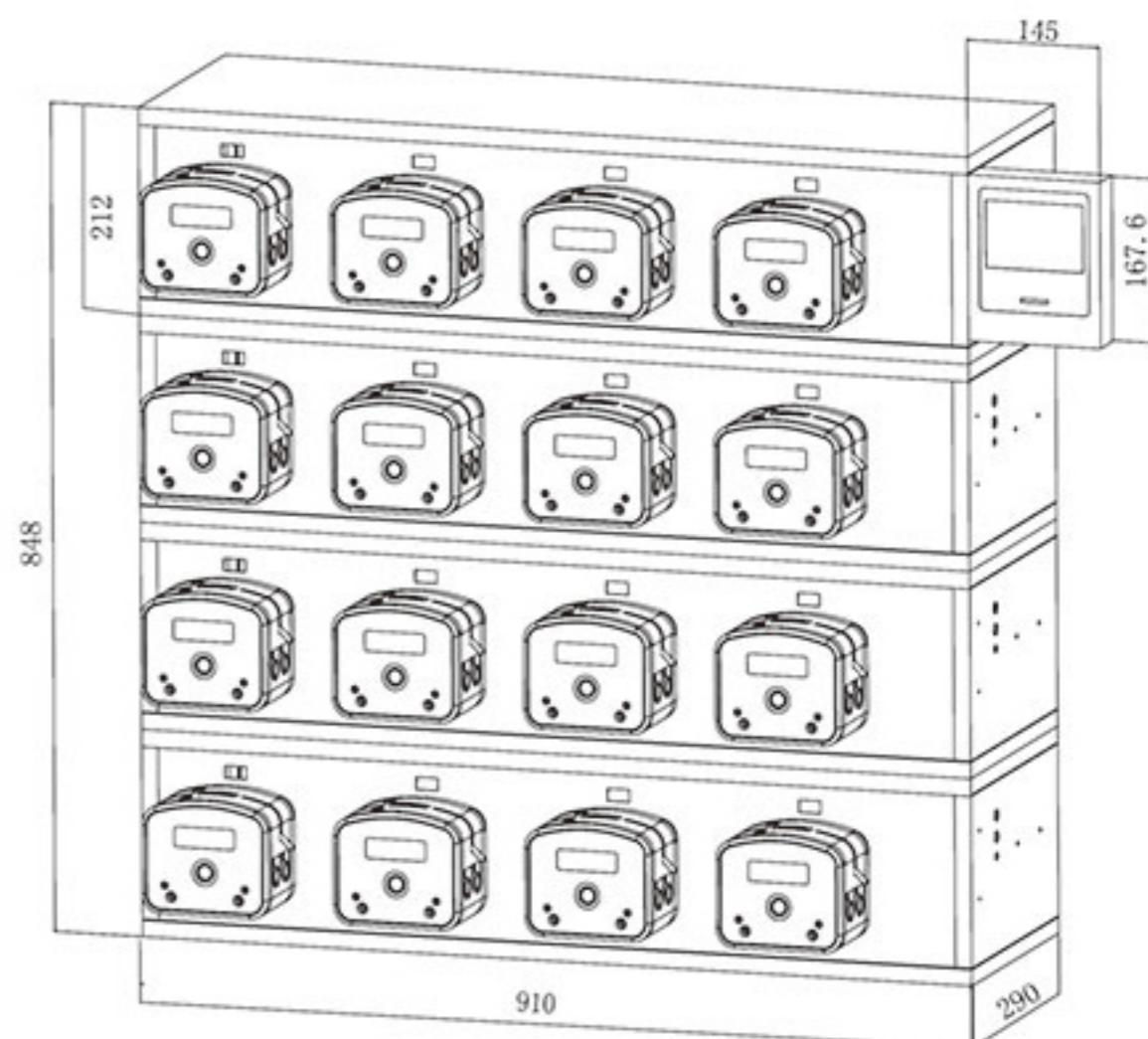
DF600 External Control Schematic Diagram



DF600plus External Control Schematic Diagram



DF600IV Dimension



DF350 Dimension

### The pump type suffixed with "Plus" support MODBUS communication protocol

Drive	Pump Head	Flow Rate (mL/min)	Motor Type	Drive Dimension (L×W×H)	Power Consumption	Drive Weight
DF600 DF600Plus	YZ1515x	0.07~2280	Stepper motor	706×250×186mm	Each Unit<50W	21.8kg
	YZ2515x	1.7~1740				
DF600 II DF600Plus II	DZ25-3L	2.11-3600	Stepper motor	706×250×186mm	Each Unit<80W	21.8kg
	DZ25-6L	3.0-6000				
DF350 DF350Plus	DY15	0.1-3337	Servo motor	910×290×212mm	Each Unit<180W	41.45kg
	DY25	4.2-4340				
DF600IV DF600Plus IV	YZ35	6.9-12000	Servo motor	910×290×212mm	Each Unit<180W	41.45kg
	YZ35-PPS					



Technical Specifications						
Speed range	CF350/DF350	1-350 rpm	Display	4.3" industrial grade true color LCD screen		
	CF350 Plus/DF350 Plus	1-350 rpm	Control method	Touch screen and mechanical keypad		
	CF600III/DF600III/DF600IV	1-600 rpm	Keypad lifetime	300,000 times		
	CF600 PlusIII/DF600 PlusIII/DF600 PlusIV	1-600 rpm	Start/stop, direction signal	Passive switch signal, such as foot pedal switch		
Filling volume range	0.1-9999.99 mL		Output interface	Active switch signal: 5V, 12V, 24V for option		
Filling time range	0.5-9999.99 s		Power supply	Output motor working status (Open-Collector output)		
Pause time range	0.5-9999.99 s		Condition temperature	AC 220V±10% 50Hz/60Hz (standard)		
Filling volume resolution	0.01 mL		Relative humidity	AC 110V±10% 50Hz/60Hz (optional)		
Time resolution	0.01 s		IP rate	0-40°C		
Copy numbers	1-9999,'0' means unlimited		Condition temperature	< 80%		
Back suction angle	0-360°		Relative humidity	0-40°C		
Filling accuracy	<±0.5%		IP rate	< 80%		
Product Composition and Flow Rate Range						
Drive	Pump Head	Pump Head Material	Tube Clamp Material	Tubing		(Motor Speed 1~600rpm) Flow Rate mL/min
				Tubing size	ID×Wall Thickness	
DF600 CF600 DF600 Plus CF600 Plus	YZ1515x	PSF PPS		13"	0.8×1.6(mm)	0.07~42
				14"	1.6×1.6(mm)	0.27~162
				19"	2.4×1.6(mm)	0.55~330
				16"	3.1×1.6(mm)	0.82~492
				25"	4.8×1.6(mm)	1.7~1020
				17"	6.4×1.6(mm)	2.9~1740
				18"	7.9×1.6(mm)	3.8~2280
				15"	4.8×2.4(mm)	1.7~1020
DF600II CF600II DF600 PlusII CF600PlusII	DZ25-3L	Aluminum alloy/PPS	PP	24"	6.4×2.4(mm)	2.11~1264
				35"	7.9×2.4(mm)	3.85~2310
				36"	9.6×2.4(mm)	5.08~3050
				15"	4.8×2.4(mm)	6~3600
DF600III CF600III DF600 PlusIII CF600 PlusIII	DZ25-6L	Aluminum alloy	PP	24"	6.4×2.4(mm)	3~1800
				35"	7.9×2.4(mm)	5.5~3300
				36"	9.6×2.4(mm)	8~4800
				15"	4.8×2.4(mm)	10~6000
DF600IV CF600IV DF600 PlusIV CF600 PlusIV	YZ35-PPS	PPS	PP	26"	6.4×3.3(mm)	6.9~4200
				73"	9.6×3.3(mm)	12.3~7400
				82"	12.7×3.3(mm)	20~12000
Drive	Pump Head	Pump Head Material	Tube Clamp Material	Tubing		(Motor Speed 1~350rpm) Flow Rate mL/min
				Tubing	ID×Wall Thickness	
DF350 CF350 DF350 Plus CF350 Plus	DY15	Aluminum alloy	PP	13"	0.8×1.6(mm)	0.1~48
				14"	1.6×1.6(mm)	0.6~223
				19"	2.4×1.6(mm)	1.3~448
				16"	3.1×1.6(mm)	2~723
				25"	4.8×1.6(mm)	4.7~1626
				17"	6.4×1.6(mm)	6.4~2230
				18"	7.9×1.6(mm)	9.5~3337
				15"	4.8×2.4(mm)	4.2~1480
DY25	DY25	Aluminum alloy	PP	24"	6.4×2.4(mm)	7.6~2670
				35"	7.9×2.4(mm)	10~3600
				36"	9.6×2.4(mm)	12.4~4340



Filling Volume Reference (Media is water)							
Drive	Pump Head	Tubing	Filling Volume (mL)	Filling Time (s)	Accuracy (±%)	Output (pcs/min)	Motor Speed (rpm)
DF600 CF600 DF600 Plus CF600 Plus	YZ1515x YZ2515x	13#	0.1	0.5	±5ul	40	204.083
		13#	0.3	0.7	1.5	35	426.251
		13#	0.5	1	0.8	30	516.081
		13#	1	2	0.5	20	517.152
		14#	2	1	1	30	446.724
		14#	3	1.5	0.8	24	446.479
		19#	5	1.2	1	27	454.919
		16#	7	1	0.5	30	457.705
		25#/15#	10	1	1	30	303.426
		25#/15#	15	1	0.8	30	461.273
		25#/15#	20	1.2	0.5	27	518.945
		17#/24#	30	1.2	0.8	27	462.725
		17#/24#	50	2	0.5	20	461.595
		18#	80	2.5	0.5	17	427.274
		18#	100	3	0.5	15	446.583
DF600II CF600II DF600 PlusII CF600PlusII	DZ25-3L	15#	16	1	0.5	30	454.976
		24#	30	1.2	0.5	27	389.610
		35#	150	4	0.5	12	442.913
		36#	200	4	0.5	12	500.000
DF350 CF350 DF350 Plus CF350 Plus	DY15	14#	0.5	0.5	0.3	60	94.1915
		14#	1	1	0.4	30	94.1915
		14#	2	1	0.6	30	188.383
		19#	3	1	0.3	30	140.625
		16#	5	1	0.5	30	145.278
	DY25	25#	10	1	0.3	30	129.143
		25#	15	1	0.4	30	193.715
		17#	30	1	0.4	30	282.530
		18#	100	2.5	0.3	17	251.730
		15#	10	1	0.3	30	141.911
DF600III CF600III DF600 PlusIII CF600 PlusIII	DZ25-6L	26#	30	1	0.5	30	235.972
		35#	70	1.2	0.4	27	340.466
		36#	100	2	0.2	20	241.935
		15#	80	4	0.4	12	400.000
	YZ35-PPS	24#	150	4	0.4	12	409.090
		35#	200	3.2	0.5	14	468.750
		36#	300	3.5	0.5	13	514.285
		26#	150	3	0.5	15	428.570
DF600IV CF600IV DF600 PlusIV CF600 PlusIV	YZ35-PPS	73#	300	3	0.5	15	486.499
		82#	500	3	0.5	15	500.000



### Filling Volume Reference (Media is water)

	Tubing	Filling Volume	Filling Time	Actual Filling Volume(mL)											Filling Accuracy	
YZ1515x	13#	0.1mL	0.5s	0.1000	0.1017	0.1004	0.1000	0.1006	0.0986	0.1015	0.0988	0.1006	0.0991	-2.500%	1.700%	
				0.0996	0.0975	0.0976	0.1006	0.0995	0.1015	0.0988	0.0991	0.0996	0.0993			
	13#	0.3mL	0.7s	0.3000	0.2979	0.3013	0.2985	0.3020	0.3030	0.3023	0.2993	0.2993	0.2974	-0.867%	1.033%	
				0.3010	0.3030	0.2992	0.2979	0.3004	0.3019	0.3012	0.2978	0.3031	0.3022			
	13#	0.5mL	1s	0.5008	0.5034	0.4998	0.5020	0.5007	0.5038	0.5021	0.5023	0.5010	0.4995	-0.100%	0.760%	
				0.5003	0.5008	0.5003	0.5011	0.5002	0.5037	0.5025	0.5005	0.5010	0.5000			
	13#	1mL	2s	1.0004	1.0000	0.9990	1.0011	1.0035	1.0014	1.0014	1.0014	0.9999	1.0015	-0.370%	0.490%	
				1.0013	1.0013	1.0029	1.0049	1.0016	1.0019	1.0048	0.9963	1.0038	1.0040			
	14#	2mL	1s	2.0030	2.0030	2.0125	1.9861	2.0116	1.9987	1.9984	2.0143	1.9973	2.0110	-0.695%	0.765%	
				2.0033	2.0153	1.9875	2.0100	2.0092	2.0024	2.0103	1.9915	2.0045	2.0133			
	14#	3mL	1.5s	3.0147	2.9861	3.0125	2.9897	3.0037	2.9905	3.0063	2.9850	3.0038	2.9917	-0.500%	0.493%	
				3.0088	3.0000	3.0019	3.0138	2.9896	3.0148	2.9921	3.0128	2.9905	3.0059			
	19#	5mL	1.2s	4.9933	5.0069	4.9914	4.9540	5.0068	4.9957	4.9950	5.0029	4.9963	4.9571	-0.920%	0.500%	
				4.9838	5.0208	5.0031	4.9687	5.0237	4.9841	5.0239	5.0032	4.9584	5.0250			
	YZ2515x	16#	7mL	1s	7.0184	7.0197	7.0178	7.0120	7.0242	7.0132	7.0149	7.0213	7.0093	7.0215	-0.293%	0.346%
				6.9795	6.9834	6.9946	6.9975	6.9868	7.0133	7.0195	7.0121	7.0190	7.0125			
	25#	10mL	1s	9.9400	10.0300	10.0700	10.0200	10.0000	9.9800	9.9200	10.0400	10.0600	10.0400	-0.800%	0.700%	
	15#			10.0400	10.0500	10.0200	9.9700	9.9500	10.0200	10.0600	10.0400	10.0500	9.9600			
	25#	15mL	1s	15.0000	15.0000	15.0300	14.9900	15.0400	15.0400	15.0300	15.0700	14.9000	15.0100	-0.667%	0.467%	
	15#			14.9500	15.0300	15.0300	15.0600	15.0300	14.9900	15.0300	14.9400	15.0100	15.0000			
	25#	20mL	1.2s	19.9600	19.9400	20.0600	19.9900	19.9600	19.9200	19.9700	20.0400	20.0000	20.0000	-0.450%	0.500%	
	15#			19.9300	20.1000	20.0000	19.9100	20.0200	20.1000	20.0100	19.9700	19.9900	20.0900			
	17#	30mL	1.2s	29.9100	29.9900	30.1800	30.1000	29.9700	29.9700	30.1800	29.8100	30.1800	29.9500	-0.633%	0.600%	
	24#			29.9400	29.9200	29.9300	30.0100	30.1800	30.0500	29.9600	29.8800	30.0100	30.1800			
	17#	50mL	2s	50.0600	50.0400	49.9900	49.8500	50.0800	50.1100	49.9800	49.8700	49.9200	50.1200	-0.440%	0.240%	
	24#			49.9200	50.0000	49.9900	49.7800	49.8200	49.9100	50.0500	49.9300	49.8400	49.8400			
	18#	80mL	2.5s	79.9700	80.2200	80.2800	80.1100	80.0000	79.9000	79.9200	80.2900	80.1300	80.0300	-0.325%	0.363%	
				79.7400	79.7800	79.8000	80.0100	80.1700	79.8500	79.7600	79.8500	80.0300	80.2200			
	18#	100mL	3s	99.8300	100.3500	99.9700	100.3700	100.0900	100.2600	100.0800	100.1500	100.1600	99.8900	-0.430%	0.370%	
				100.0400	99.6600	100.0800	99.5700	100.0100	99.9900	99.7900	100.1400	99.7200	100.1700			
DZ25-3L	35#	150mL	4s	149.4100	150.4300	149.7600	150.0400	150.4200	149.5500	150.3200	149.7500	149.6500	150.2900	-0.480%	0.287%	
	36#	200mL	4s	149.4200	149.9400	150.2700	149.3400	149.8600	150.2500	149.2800	150.0300	149.9200	149.4700	-0.400%	0.300%	
				199.4800	199.9000	199.6600	199.7200	199.8600	200.0200	199.2000	199.8800	199.8600	199.4800			
				199.9000	200.5400	200.6000	199.9600	199.9400	200.0200	199.9800	200.0600	199.9200	200.1800			



### Filling Volume Reference (Media is water)

	Tubing	Filling Volume	Filling Time	Actual Filling Volume(mL)												Filling Accuracy	
DY15	14"	0.5mL	0.5s	0.5003	0.5010	0.4982	0.5015	0.5015	0.5010	0.5014	0.5005	0.4981	0.4998	0.5008	-0.37%	0.32%	
	14"	1mL	1s	1.0037	1.0000	1.0026	1.0003	1.0031	1.0015	1.0000	1.0007	1.0023	1.0035	0.5008	-0.44%	0.42%	
	14"	2mL	1s	2.0020	2.0060	2.0039	2.0037	2.0047	1.9944	2.0062	2.0040	1.9951	2.0060	1.9965	-0.58%	0.60%	
	19"	3mL	1s	3.0058	2.9935	3.0092	3.0008	2.9927	3.0072	3.0046	2.9914	3.0040	3.0000	3.0051	-0.33%	0.31%	
	16"	5mL	1s	5.0215	4.9982	5.0145	5.0038	4.9864	5.0183	4.9962	5.0227	5.0158	4.9806	5.0231	-0.39%	0.50%	
	25"	10mL	1s	10.02	10.04	10.00	9.98	10.02	10.03	10.04	10.04	10.01	9.99	10.03	-0.20%	0.40%	
	25"	15mL	1s	15.02	14.97	14.97	14.94	15.00	15.00	14.94	14.95	14.96	14.99	14.96	-0.47%	0.13%	
	17"	30mL	1s	29.92	30.01	29.99	29.91	29.83	29.86	29.91	29.91	29.91	29.89	29.83	-0.57%	0.20%	
	18"	100mL	2.5s	99.80	99.90	99.80	99.90	100.00	100.10	100.10	100.00	100.10	100.00	100.10	-0.20%	0.30%	
DY25	15"	10mL	1s	9.97	10.01	9.96	9.98	10.01	9.96	9.97	9.99	9.96	9.96	9.96	-0.60%	0.10%	
	24"	30mL	1s	29.90	29.80	30.10	29.90	29.90	30.00	29.90	29.90	30.00	29.90	30.00	-0.67%	0.33%	
	35"	70mL	1.2s	69.80	69.90	69.90	69.90	69.70	70.10	70.00	69.70	69.90	69.90	69.90	-0.43%	0.43%	
	36"	100mL	2s	99.80	99.90	99.80	99.80	100.00	99.90	99.90	99.90	99.90	99.90	99.90	-0.20%	0.10%	
DZ25-6L	15"	80mL	4s	80.2	80.0	80.3	80.2	80.1	80.1	80.2	80.1	80.2	80.1	80.1	-0.13%	0.38%	
	24"	150mL	4s	149.9	150.2	150.0	150.1	150.0	150.3	150.0	150.1	150.3	150.0	150.2	-0.07%	0.20%	
	35"	200mL	3.5s	199.7	199.9	200.2	200.2	200.2	199.6	199.8	199.8	200.1	199.9	199.9	-0.40%	0.10%	
	36"	300mL	3.5s	300.4	300.1	300.3	300.3	300.4	300.1	300.3	300.4	300.6	300.2	300.6	-0.17%	0.20%	
YZ35-PPS	26"	150mL	3s	149.3	150.3	149.6	150.2	150.5	150.1	150.5	150.1	150.5	150.0	150.0	-0.47%	0.33%	
	73"	300mL	3s	299.9	299.8	300.0	300.1	300.4	300.2	300.4	300.4	300.6	300.5	300.5	-0.07%	0.27%	
	82"	500mL	3s	500.0	497.8	499.7	498.3	498.4	499.5	498.2	499.7	499.2	498.4	499.6	-0.44%	0.38%	



Pharmaceutical Filling Machine

Cosmetic Filling Line



# Standard Peristaltic Pump

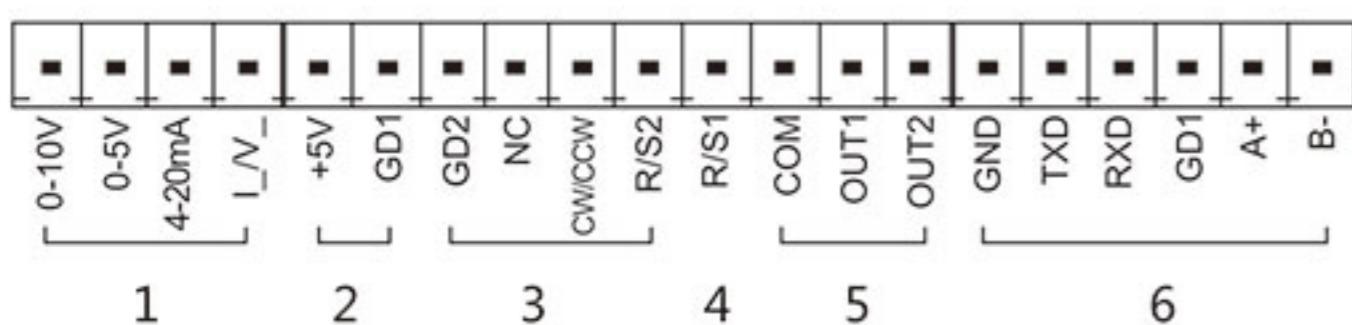
LabN1, LabN3, LabN6



## Model Number

| LabN1, LabN3, LabN6

## LabN Series External Control Schematic Diagram



# Standard Peristaltic Pump

## BT100N, BT300N, BT600N



**Model Number** | BT100N, BT300N, BT600N

## Suitable Pump Head



## Features

- | 3.2" blue LCD screen display, mechanical keypad control.
  - | Super silent drive , low vibration, low noise.
  - | Timing function, time range 0.1s-9999hours, can be used for simple dispensing function.

## Typical Application

- | Special for university laboratory and research institute.
  - | Ion chromatography and titrator
  - | Pilot scale and industry production

## Features

- | Plastic coated metal housing, compact structure.
  - | Timing function, time range 0.5s-999s, can be used for simple dispense.
  - | RS232, RS485 Communication Interface.

Support Shenzhen communication protocol or standard Modbus communication protocol(RTU mode).



LabN Series/BT-N Series Technical Specifications			
Flow rate range	LabN1: 0.000166~570 mL/min LabN3: 0.000166~1330 mL/min LabN6: 0.000166~2280 mL/min BT100N: 0.000829~570 mL/min BT300N: 0.000829~1330 mL/min BT600N: 0.000829~2280 mL/min	Keypad lifetime External speed control signal Start/stop, reversing signal Communication interface Output interface	300,000 times 0-5V, 0-10V, 4-20mA for option Passive switch signal, such as foot pedal Active switch signal: 5V, 12V, 24V for option RS232, RS485 support Modbus protocol(RTU mode) LabN Series: Output motor working status (Open-Collector output)
Speed resolution	LabN Series : 0.1rpm; BT-N Series: 0-100rpm, 0.1rpm; 100-600rpm, 1rpm	Power supply	AC 220V±10% 50Hz/60Hz (standard)
Back suction angle	LabN Series: 0-360°	Drive dimension	AC 110V±10% 50Hz/60Hz (optional)
Testing time range	LabN Series: 0.1 s-9999 h BT-N Series: 0.5 s-999 s	Drive weight	LabN Series: 261.4×157.3×236.9mm BT-N Series: 183×131×194mm
Outlet pressure	0.86~1.0 mm wall thickness tubing: 0.1Mpa; 1.6~2.4mm wall thickness tubing: 0.1~0.27Mpa	Power consumption	<50W
Display	LabN Series: 3.2" high definition LCD screen BT-N Series: LED Display	Condition temperature	0-40°C
Control method	Mechanical keypad	Relative humidity	< 80%
		IP rate	IP31

### LabN Series/BT-N Series Product Composition and Flow Rate Range

Standard Peristaltic Pump		Pump Head & Flow Rate (mL/min)			
		YZ1515x	YZ2515x	MC1~MC12(10)	MC1~MC12(6)
Drive & speed	Tubing	13", 14", 19", 16" 25", 17", 18"	15", 24"	Inner diameter: 0.13-3.17mm Wall thickness: 0.86-1mm	
LabN1	0.1-150rpm	0.007~570	0.17~435		
LabN3	0.1-350rpm	0.007~1330	0.17~1015	0.000166-49(suggestion working speed≤150rpm)	0.000185-65(suggestion working speed≤150rpm)
LabN6	0.1-600rpm	0.007~2280	0.17~1740		
BT100N	0.5-150rpm	0.035~570	0.85~435	0.000829-49(suggestion working speed≤150rpm)	0.000925-65(suggestion working speed≤150rpm)
BT300N	0.5-350rpm	0.035~1330	0.85~1015		
BT600N	0.5-600rpm	0.035~2280	0.85~1740		



LabN Series Membrane Functions

## Standard Peristaltic Pump

N6-12L



N6-6L

N6-3L

### Features

- | Servo motor drive, powerful and maintenance-free.
- | 3 digital LED display motor speed, rotary encoded switch control.
- | Suitable for industrial sites, transfer liquid with large flow and high precision.

### Model Number

- | N6-3L/DZ25-3L
- | N6-6L/DZ25-6L
- | N6-12L/YZ35

### Technical Specifications

Flow rate range	N6-3L: 0.211~3600 mL/min N6-6L: 0.3~6000 mL/min N6-12L: 0.00069~12 L/min	Communication interface	RS232(standard),Shenchen-N232 Communication protocol; RS485(optional), Modbus protocol(RTU mode)
Speed range	0.1-600 rpm	Power supply	AC 220V±10% 50Hz/60Hz (standard) AC 110V±10% 50Hz/60Hz (optional)
Speed resolution	0-100rpm, 0.1rpm; 100-600rpm, 1rpm.	Drive dimension (L×W×H)	N6-3L: 223×152×168mm N6-6L: 283×192×218mm N6-12L: 302×222×275mm
Flow rate accuracy	<±0.5%	Drive weight	N6-3L: 5.02kg; N6-6L: 7.85kg N6-12L: 13.14kg
Outlet pressure	0.3Mpa	Power consumption	N6-3L: <80W; N6-6L: <180W N6-12L: <300W
Motor type	Servo motor	Condition temperature	0-40°C
Display	3 digital LED	Relative humidity	<80%
Control method	Mechanical keypad	IP rate	IP31
Keypad lifetime	300,000 times		
Speed control	Rotary encoded switch		
Start/stop, direction signal	Passive switch signal, such as foot pedal Active switch signal: 24V default		
External speed control signal	0-5V(standard), 0-10V, 4-20mA(optional)		

### Product Composition and Flow Rate Range

Drive	Motor Type	Pump Head	Tubing Size	Speed Range	Flow Rate(mL/min)
N6-3L	Servo Motor	DZ25-3L	15", 24", 35", 36"	0.1-600 (rpm)	0.211~3600
N6-6L		DZ25-6L	15", 24", 35", 36"		0.3~6000
N6-12L		YZ35	26", 73", 82"		0.69~12000



BAODING PERISTALTIC PUMP ENGINEERING TECHNOLOGY RESEARCH CENTER

# New Arrivals

## LabM series

*ABS engineering  
plastic housing*



*LabM*

**RESEARCH CENTER**

BAODING SHENCHEN PRECISION PUMP CO.,LTD



Add: No.103, Building 2, Zhidian Industrial Park, Fuxing East Road 999, Baoding, China.  
Website: [www.good-pump.com](http://www.good-pump.com) Tel : 0086-312-6780680 Fax : 0086-312-6780636

Baoding Shenchen Precision Pump Co.,Ltd  
Baoding Peristaltic Pump Engineering Technology Research Center

## Basic Peristaltic Pump

LabM1, LabM3, LabM6



LabM1, LabM3, LabM6

### Typical Application

University laboratory.

Supporting ion chromatography and titrator.



### Features

3 digital LED display motor speed, mechanical keypad control.

Timing function, can be used for simple dispense  
Has both RS232 and RS485 communication mode.

### Suitable Pump Head

## Basic Peristaltic Pump

BT100M, BT300M, BT600M



### Features

3 digital LED display motor speed.  
Toggle switch control start/stop and direction.

Rotary encoded switch control speed, easy operation.  
Economical and durable, suitable for different industrial application.

BT100M, BT300M, BT600M

### Typical Application

Add cement grinding aids  
Support industrial production line



Technical Specifications			
Flow rate range	LabM1: 0.000829~570 mL/min LabM3: 0.000829~1330 mL/min LabM6: 0.000829~2280 mL/min  BT100M: 0.00166~570 mL/min BT300M: 0.00166~1330 mL/min BT600M: 0.00166~2280 mL/min	Start/stop, direction signal	LabM Series: Passive switch signal, such as foot pedal switch; Active switch signal: 24V default BT-M Series: TTL level signal
		Communication interface	RS485(optional),Modbus protocol(RTU mode) LabM Series: RS232(standard), Shenzhen communication protocol;
Speed resolution	0.1rpm when the speed is 0-100rpm, 1rpm when the speed is 100-600rpm.	Power supply	AC 220V±10%, 50Hz/60Hz (standard) AC 110V±10%, 50Hz/60Hz (optional)
Testing time range	LabM Series: 0.5s-999s	Drive dimension (L×W×H)	LabM Series: 261.4×157.3×236.9mm BT100M: 234×144×140mm BT300M, BT600M: 254×185×149mm
Outlet pressure	0.1Mpa (0.86-1.0mm wall thickness tubing) 0.1-0.27Mpa (1.6-2.4mm wall thickness tubing)	Drive weight	LabM Series: 4.40 kg BT100M: 3.6kg BT300M,BT600M: 4.64kg
Back suction angle	BT-M Series: 0-360°(optional)	Power consumption	<50W
Display	3 digital LED	Condition temperature	0-40°C
Control method	LabM Series: Mechanical keypad BT-M Series: Toggle switch+Rotary encoded switch	Relative humidity	<80%
External speed control signal	LabM Series: 0-5V,0-10V,4-20mA for option	IP rate	IP31
Keypad lifetime	300,000 times		

Product Composition and Flow Rate Range					
Basic Peristaltic Pump		Pump Head & Flow Rate (mL/min)			
Drive & speed	Tubing	YZ1515x	YZ2515x	MC1~MC12(10)	MC1~MC12(6)
		13", 14", 19", 16" 25", 17", 18"	15", 24"	Inner diameter: 0.13-3.17mm Wall thickness: 0.86-1mm	
LabM1	0.5-150rpm	0.035~570	0.85~435	0.000829-49(suggestion working speed≤150rpm)	0.000925-65(suggestion working speed≤150rpm)
LabM3	0.5-350rpm	0.035~1330	0.85~1015		
LabM6	0.5-600rpm	0.035~2280	0.85~1740		
BT100M	1-150rpm	0.07~570	1.7~435	0.00166-49(suggestion working speed≤150rpm)	0.00185-65(suggestion working speed≤150rpm)
BT300M	1-350rpm	0.07~1330	1.7~1015		
BT600M	1-600rpm	0.07~2280	1.7~1740		



## Explosion Proof Peristaltic Pump

**EXP600/YZ35**



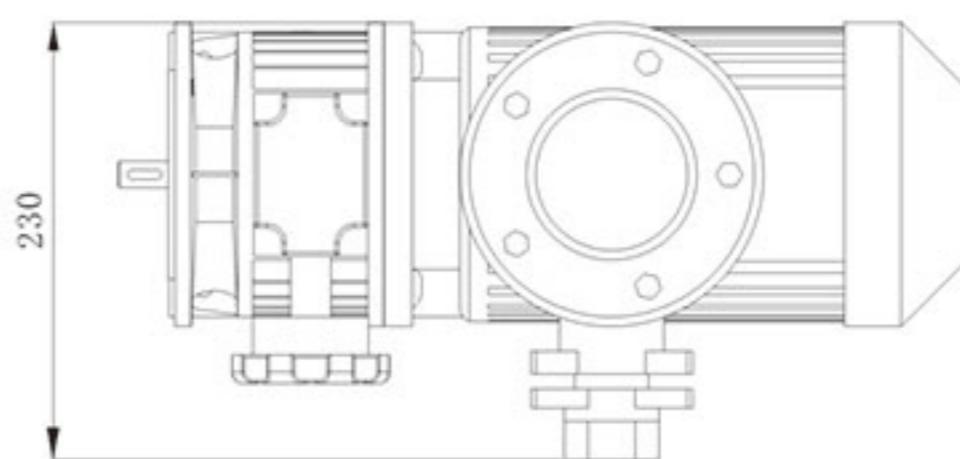
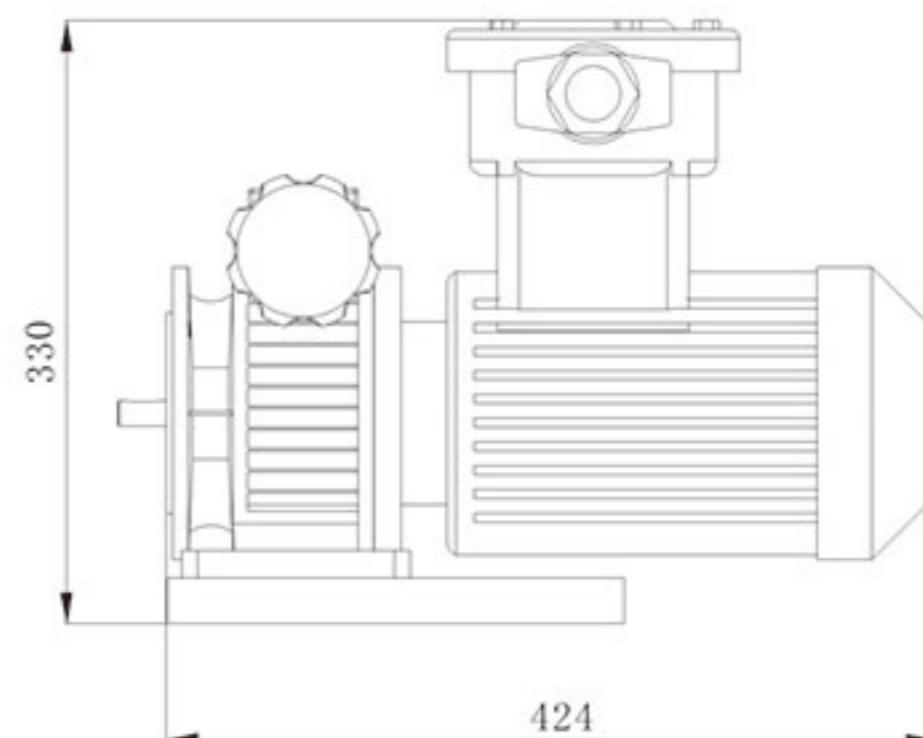
### Features

Driven by explosion-proof motor, the power is strong.  
Stepless speed regulation, reversible.

IP rate: IP55

Suitable for inflammable and explosive industrial sites.

### Installation Sizes Drawing (Unit: mm)



## Explosion Proof Peristaltic Pump

**EXP600/YZ1515x**



### Technical Specifications

Speed range	180-600 rpm	Drive dimension	424×230×330 ( mm ) ( L×W×H )
Speed control	Manual stepless speed regulation	Drive weight	30 kg
Voltage	AC 3 phase 380V	Relative humidity	<80%
Condition temperature	0~40°C	IP rate	IP55

### Product Composition and Flow Rate Range

Drive	Speed	Pump Head	Tubing Size	Flow Rate (mL/min)
EXP600	180-600rpm	YZ1515x	13", 14", 19", 16", 25", 17", 18"	12.6~2280
		YZ2515x	15", 24"	306~1740
		YZ35	26", 73", 82"	1242~12000
		DZ25-3L	15", 24", 35", 36"	379.8~3600
		DZ25-6L	15", 24", 35", 36"	540~6000
		SN15	14", 16"	43.2~528
		SN25	24"	450~1500

## Explosion Proof Peristaltic Pump

Suitable Pump Head

QD600



### Features

Pneumatic motor driver, gas driving, explosion-proof and safe.

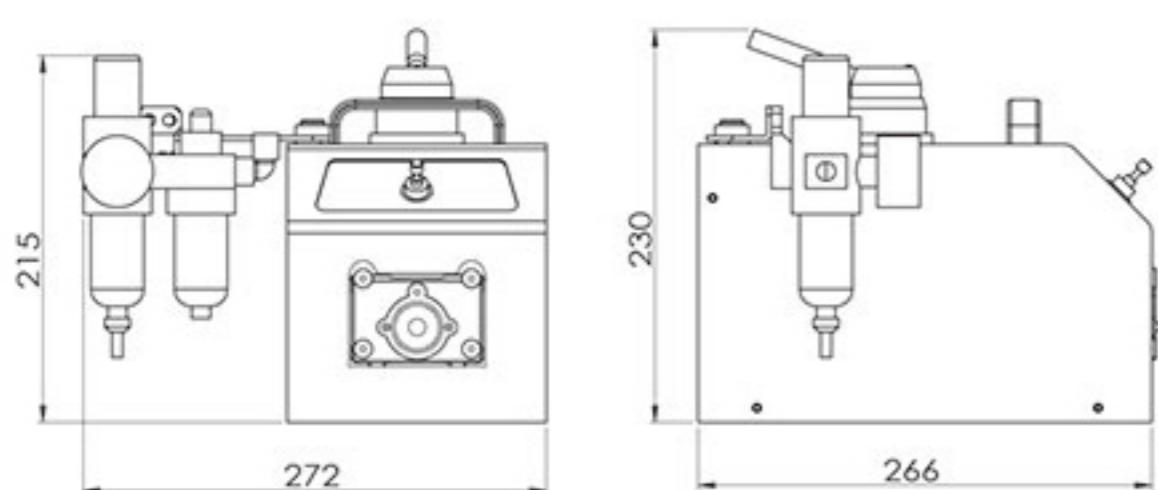
Stepless speed regulation, manual control flow valve. Start/stop, direction, overload protection functions.

Barometer, convenient for users to check the pressure value.

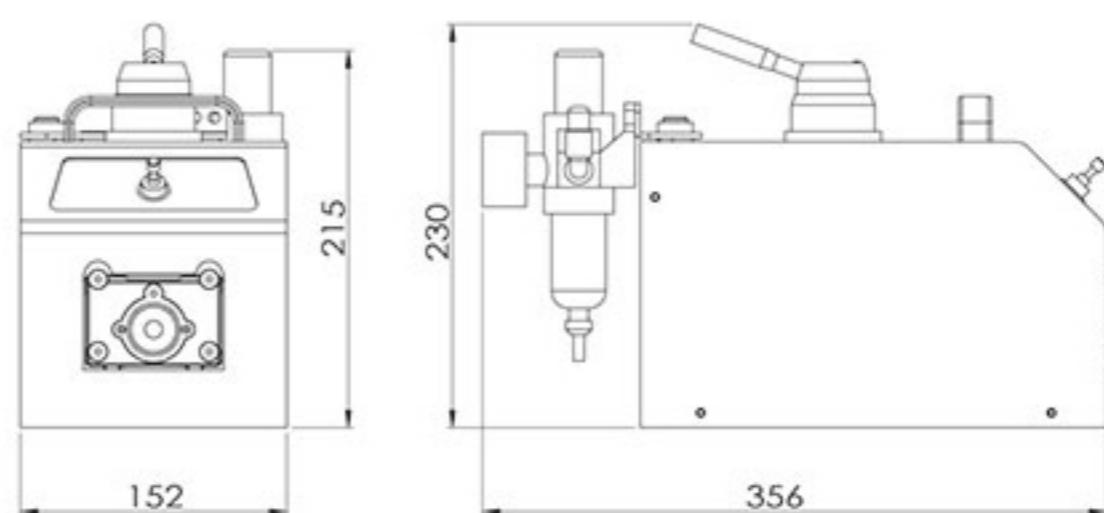
Suitable for inflammable, explosive industrial sites.

## Installation Sizes Drawing

Working status dimension drawing (Unit: mm)



Non-working status dimension drawing (Unit: mm)



## Technical Specifications

Speed range	60~600 rpm	Drive dimension (L x W x H)	Working:266x 272 x 230mm Non-working:356x 152 x 230mm
Display	Display air pressure	Drive weight	4.10 kg
Speed control	stepless speed regulation (By adjusting the flow valve)	Power consumption	<80W
Control function	Start/stop,reversing(gas reversing valve control)	Condition temperature	0-40°C
Working air pressure	0.1-0.4Mpa	Relative humidity	<80%
Gas consumption	4L/Sec	IP rate	IP31

## Product Composition and Flow Rate Range

Peristaltic Pump		Pump Head & Flow Rate (mL/min)			
Drive & Speed	Tubing	YZ1515x	YZ2515x	MC1~MC12(10)	MC1~MC12(6)
QD600	60-600rpm	13", 14", 19", 16" 25", 17", 18"	15", 24"	Inner diameter: 0.13-3.17mm Wall thickness: 0.86-1mm	2.8-49(suggestion working speed≤150rpm) 3.2-65(suggestion working speed≤150rpm)
		5-2280	100~1740		



## Hand Sampling Pump

**SC600**



### Product Maintenance

When the pump is not working, please release the pump head upper block, to avoid the tubing deformation because of long-time extrusion.

Please keep the pump head roller clean and dry, or it will faster the tubing wear, shorten the tubing lifetime, and damage the rollers.

Pump head can not resist strong corrosive liquid, please pay attention to this.

### Sampling Nozzle



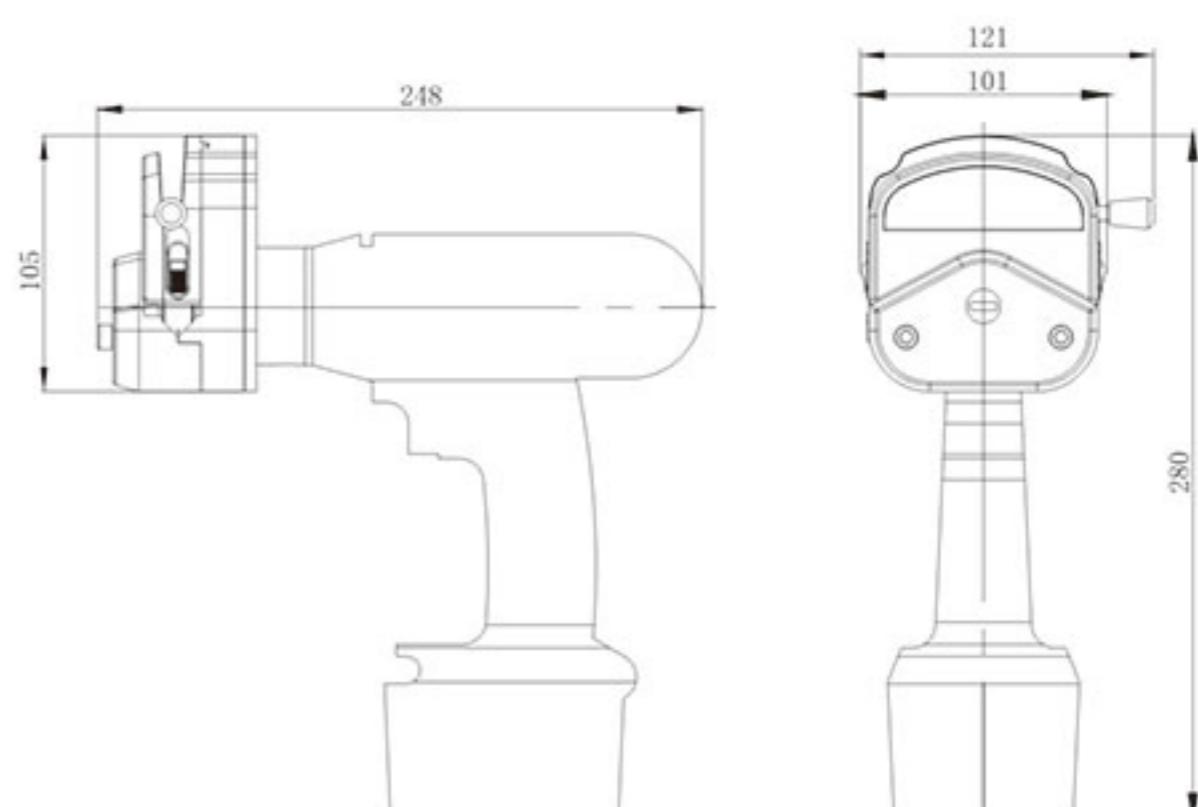
### Product Introduction

Hand sampling pump usually used for emergency monitoring and temporary water sampling, can be used as stratified water sampler, portable water sampler and deep water sampler.

### Product Features

- | Rechargeable power supply, portable and suitable for non-electrical place.
- | Use easy load pump head, simple application and easy to clean. Imported portable drive, speed is adjustable.
- | Speed 1 is 0-350rpm, speed 2 is 0-1200rpm, stepless speed regulation, direction is reversible.
- | Can collect high proportion and high viscosity liquid, can collect liquid which include solid, also can stratified sampling. Suction lift can reach 8 meters.
- | Standard: Drive, charger, battery, pump head and sampling nozzle.

### Dimension Drawing (Unit: mm)



### Technical Specifications

Speed range	Speed 1: 0-350rpm Speed 2: 0-1200rpm	Power supply	Charging power supply Ac220V 50/60Hz (AC110V 50/60Hz Option)
Dimension	243mm × 120mm × 280mm ( L × W × H )		
Drive weight	2.1kg	Suction lift	8m
Working condition	Outdoor, indoor	IP rate	IP31

### Product Composition and Flow Rate Range

Drive	Pump Head	Tubing Size	Flow Rates(mL/min)
SC-1	YZ2515x	15#	0-1020
	YZ2515x	24#	0-1740
	YZ1515x	13# 14# 19# 16# 25# 17# 18#	0-2280



## Multichannel Pump Head

### DG Series

### Product Introduction

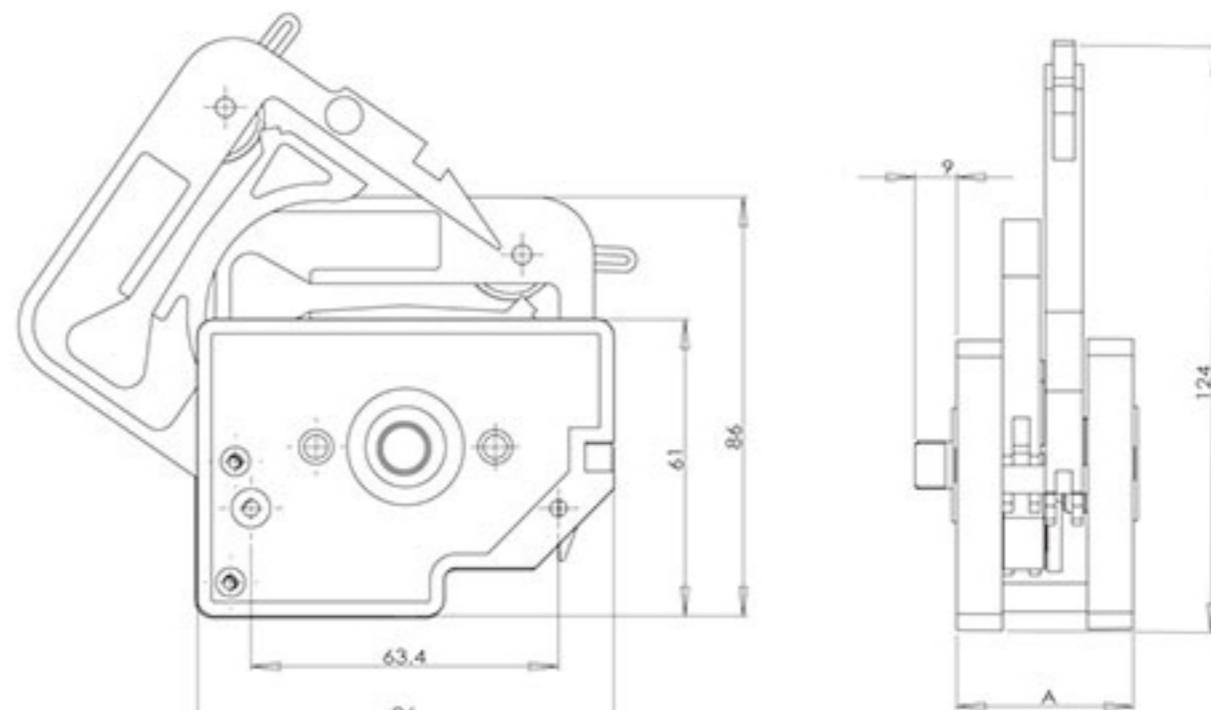
The first generation multichannel pump head is used for multichannel transfer micro liquid. Occlusion can be adjusted. Widely used in supporting analytical instruments.



### Typical Application

Widely used in supporting analytical instruments and laboratories.

### Installation Sizes Drawing (Unit: mm)



DG-4, DG-6, DG-8, DG-12 use unique spanner to open the cartridge

### Technical Specifications

Pump Head	DG-1	DG-2	DG-4	DG-6	DG-8	DG-12	
Channel number	1	2	4	6	8	12	
Tubing	Inside Diameter: 0.13-2.5mm, Wall Thickness: 0.5-1mm						
Flow rates (≤100rpm)	6 rollers 10 rollers	0.00008-27 mL/min(per channel) 0.000067-21.6 mL/min (per channel)					
Cartridge material	POM						
Rollers material	304 stainless steel						
Weight (kg)	6 rollers 10 rollers	0.21 0.20	0.27 0.26	0.40 0.39	0.54 0.51	0.67 0.63	0.95 0.88



## Multichannel Pump Head-MC Series

### POM Material & PVDF Material



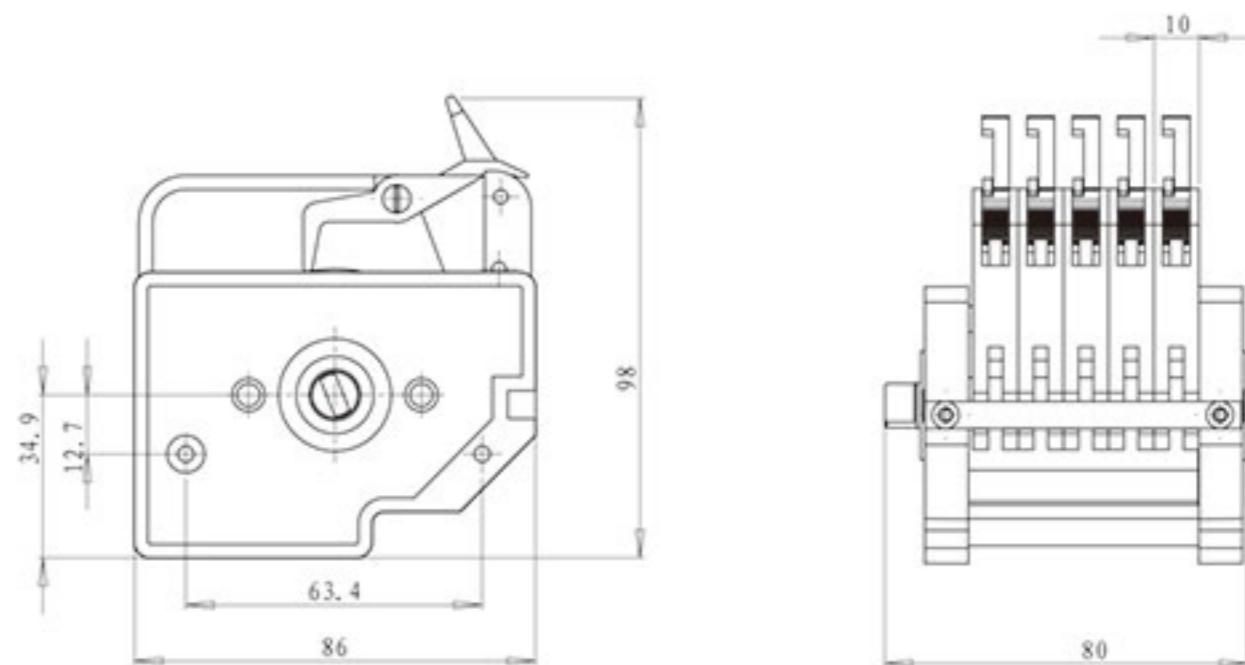
### Typical Application

- | Support blood sugar analytical device.
- | Support ammonian analytical instrument.

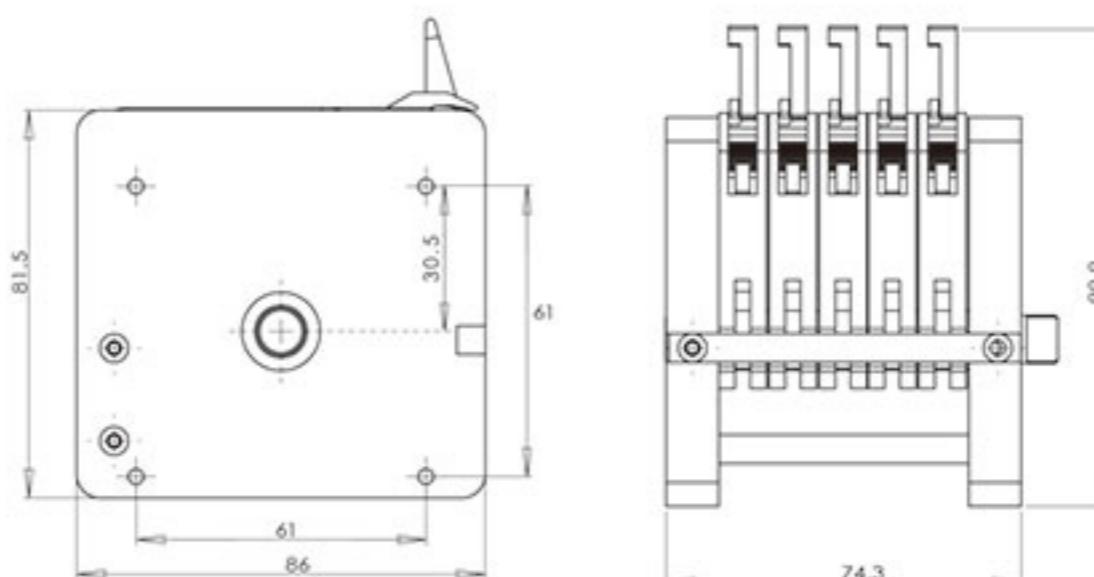
### Product Introduction

MC series new generation multichannel pump head with unique cam structure, make it much easier to operate. It is designed for small flow rates and multichannel transfer. Comparing with traditional DG pump head, it has particular cam design for micro adjustment occlusion, and also for opening the cartridge from the top. 304 stainless steel rollers assembly include two structures of 6 rollers and 10 rollers. Install silicone tubing and TYGON series imported tubing. It is widely used in supporting analytical instruments.

### Installation Sizes Drawing (Unit: mm)



**Note:** Increasing or reducing one channel, the pump head size need to increase or reduce the thickness of one cartridge.



### Installation Sizes Drawing (Unit: mm)

**Note:** Increasing or reducing one channel, the pump head size need to increase or reduce the thickness of one cartridge.

### MC Pump Head VS DG Pump Head



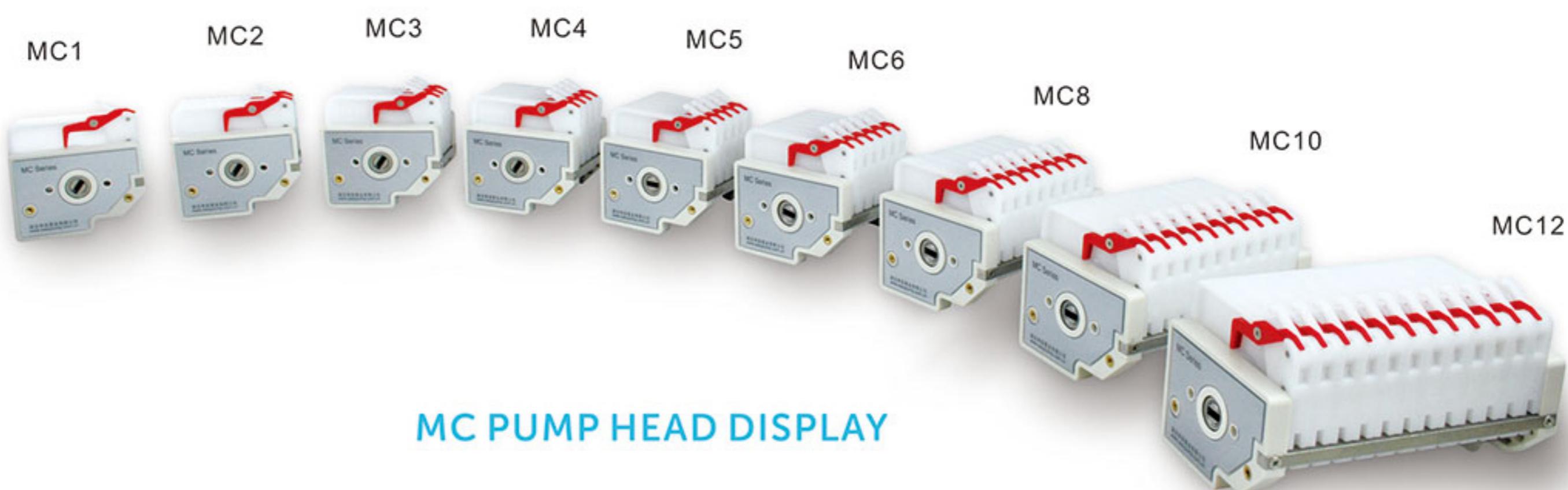
1. The traditional DG series pump head need to open the cartridge from the bottom. It is very inconvenient to use when the space of the equipment is compact. The MC series pump head just need to open the cartridge from the top, easy to operate.

2. The gear on the MC pump head is smaller than DG, this improved the adjusting resolution.



DG Series

## Multichannel Pump Head-MC Series



### Tubing Installation Procedure

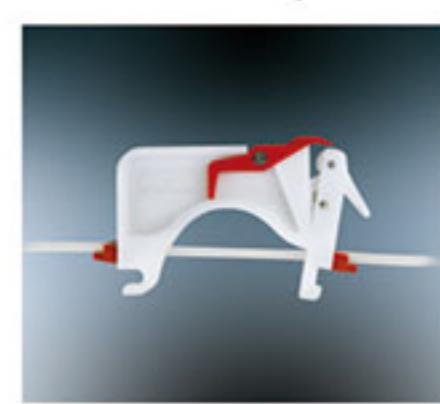
A. Turn the spanner clockwise to take it off from the lever.



B. After that, the cartridge can be taken out lightly.



C. Install the tubing and confirm the working position between two adjacent clamps.



D. Embed the cartridge and press it lightly to reach the working position.



E. Turn the spanner counter-clockwise to make it reach the lever.



F. Multichannel pump heads and tubing drawing.



### MC Technical Specifications

Channel number	1	2	3	4	5	6	8	10	12
Cartridge material	POM/PVDF								
Rollers material	304/316 stainless steel material								
Rollers number	6 rollers, 10 rollers								
Tubing	Speed	Flow rate of pump head with 10 rollers (mL/min)	Flow rate of pump head with 6 rollers (mL/min)	Tubing maximum pressure (Mpa)					
1×1	0.1~150rpm	0.0046~7.03	0.0053~8.13	Continuous	0.1				
2×1		0.016~23.07	0.02~33.08						
2.4×0.8		0.021~31.26	0.027~44.62	Intermittent	0.1				
3×1		0.032~49.07	0.043~65.00						



## Easy Load Pump Head

YZ1515x, YZ2515x



**Model Number** | YZ1515x, YZ2515x

### Typical Application

- | Support COD on-line monitor.
- | Support anorectal therapeutic instrument.
- | Support biofermentation cylinder.



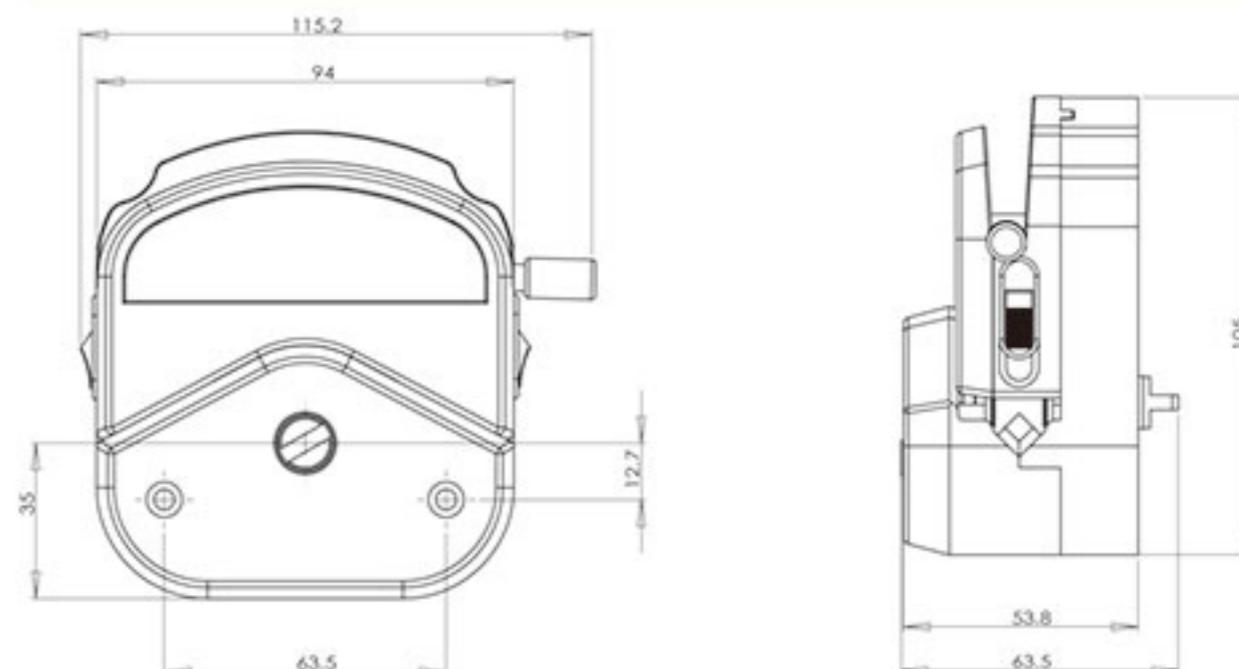
3 rollers

6 rollers

### Product Introduction

Change the tubing easily and rapidly; automatic tubing retention; accept 9 sizes tubing to meet different flow rates requests. Two kinds of material housing for customers' selection. PSF (polysulphone material): white, exquisite appearance, good rigidity, high precision, usually used in research laboratory and supporting analytical device. PPS (polyphenylene sulfide material): black, resist organic solvent corrosion, high precision and rigidity, suitable for industry or other bad working conditions. Rollers assembly with 304 stainless steel material resists corrosion with long lifetime.

### Installation Sizes Drawing (Unit: mm)



Mounting several pump heads can increase the flow rates.



YZ Series pump head has wide application, and is usually used together with many kinds of analytical instruments. According to the different technical requests, it can adopt different motors to drive, such as stepper motor, DC motor, synchronous motor, AC gear motor, etc. Stack up several pump heads can increase the flow rates.

Pump Head	Tubing	ID×Wall thickness(mm)	mL / r	Flow Rate(mL/min) (0.1-600rpm)	Tubing Max. Pressure(Mpa)		Material/Weight(kg)	
					Intermittent	Continuous	PSF	PPS
YZ1515x	13"	0.8×1.6	0.07	0.007~42	0.27	0.17	0.40 (3 rollers)	0.46 (3 rollers)
	14"	1.6×1.6	0.27	0.027~162				
	19"	2.4×1.6	0.55	0.055~330				
	16"	3.1×1.6	0.82	0.082~492				
	25"	4.8×1.6	1.7	0.17~1020	0.24	0.14	0.44 (6 rollers)	0.50 (6 rollers)
	17"	6.4×1.6	2.9	0.29~1740	0.14	0.10		
	18"	7.9×1.6	3.8	0.38~2280	0.10	0.07		
YZ2515x	15"	4.8×2.4	1.7	0.17~1020	0.27	0.17		
	24"	6.4×2.4	2.9	0.29~1740				



## Easy Load Pump Head

YZ35-PPS, YZ35(Aluminum Alloy)



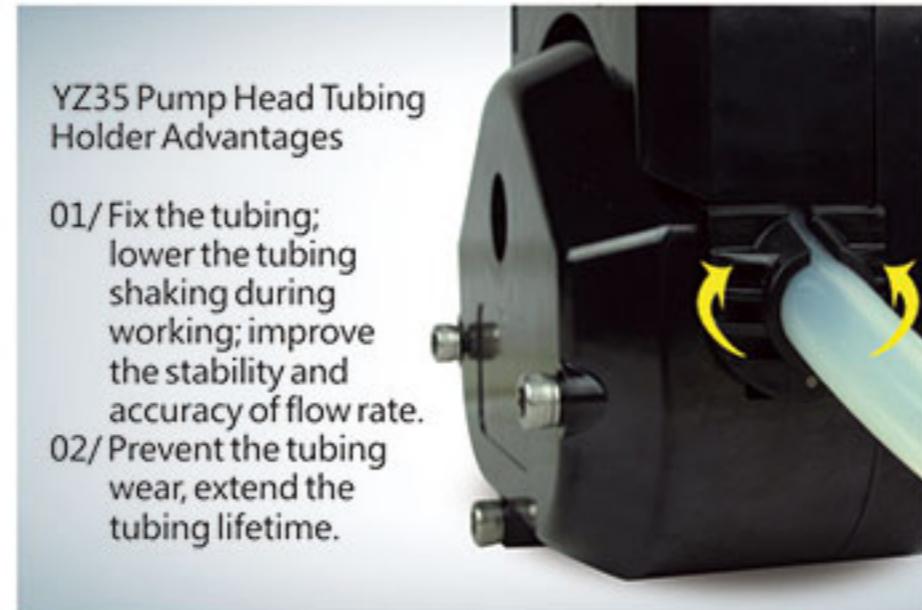
3 rollers

### Product Introduction

YZ35 pump head with aluminum alloy or PPS housing material. 304 stainless steel rollers assembly achieve high precision transferring liquid. Adaptive tubing cartridge structure makes it more easy to load the tubing.

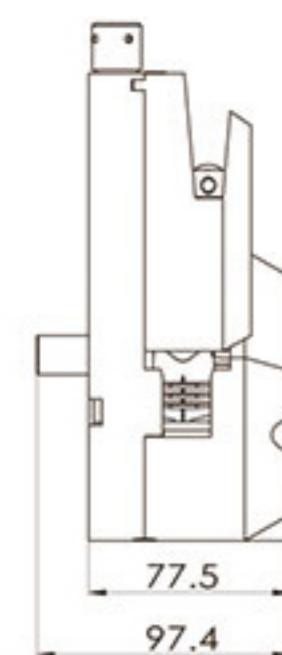
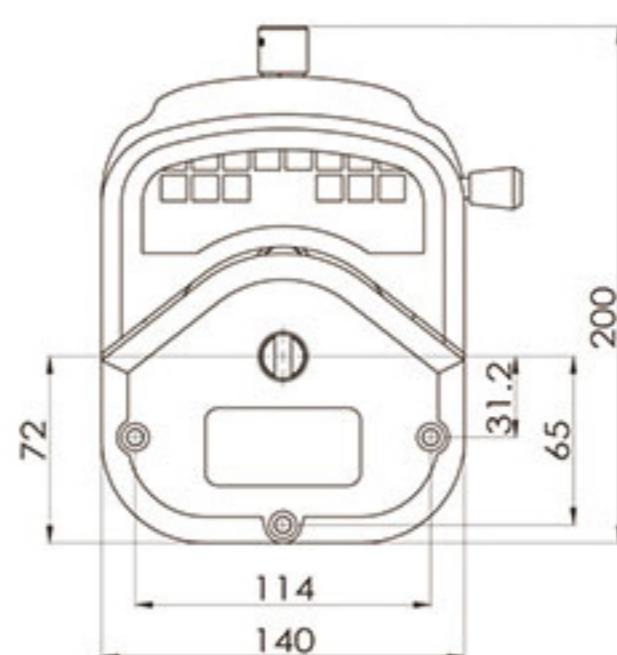
### Model Number

| YZ35-PPS, YZ35(Aluminum Alloy)

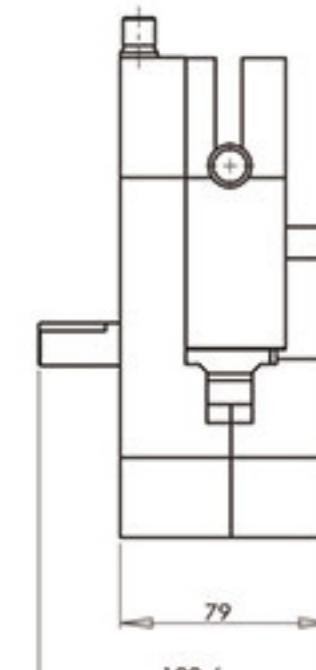
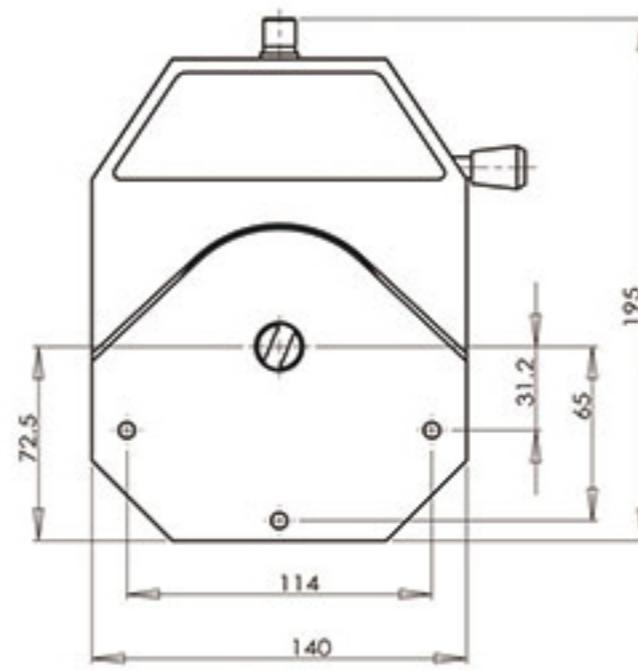


### Installation Sizes Drawing (Unit: mm)

YZ35-PPS



YZ35-Aluminum Alloy



### Technical Specifications

Pump Head	Tubing	ID×Wall Thickness(mm)	mL / r	Flow Rate(mL/min) (0.1-600rpm)	Tubing Max.Pressure(Mpa)		Material/Weight(kg)	
					Intermittent	Continuous	Aluminum Alloy	PPS
YZ35	26#	6.4×3.3	6.9	0.69~4200	0.27	0.20	4.36	1.50
	73#	9.6×3.3	12.3	1.23~7400				
	82#	12.7×3.3	20	2~12000	0.14	0.10		

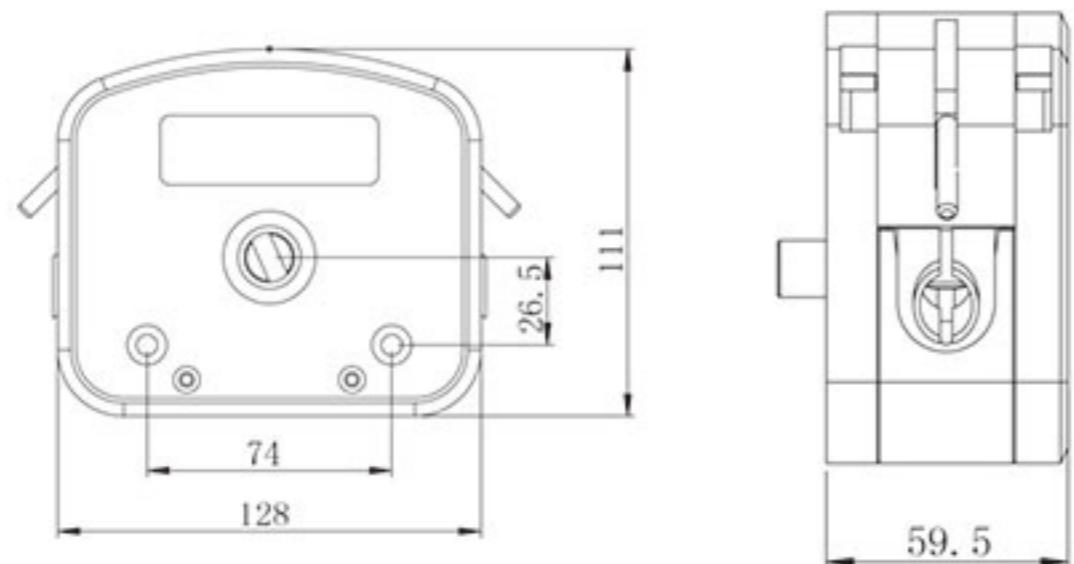


## Fast Load Pump Head

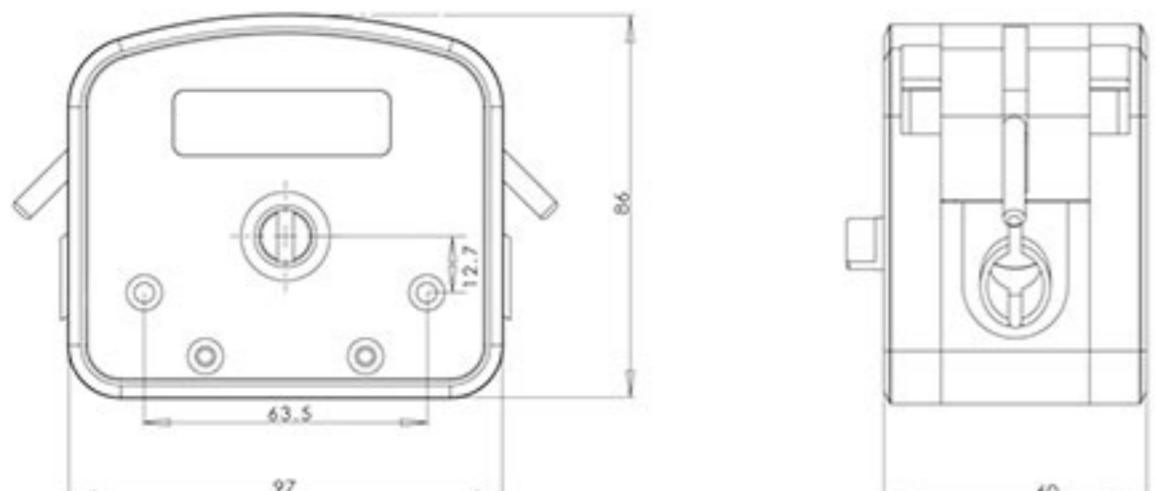
DZ25-3L,DZ25-6L(Aluminum Alloy)



### Installation Sizes Drawing (Unit: mm)



DZ25-6L Dimension



DZ25-3L Dimension

### Product Introduction

Easy operation, change tube rapidly. The house material is aluminum alloy or PPS (polyphenylene sulfide). 304 stainless steel rollers. DZ25 pump head use 2.4mm wall thickness tube, the flow rate range is 0.2-6000mL/min. This pump head is suitable for high viscous liquid which include granule and floc. It also suitable for high pressure request. New cartridge structure design, can use the special connector, connect low cost tubing outside the pump head to save cost; also can use flexible tube card, meet hygiene requirement.

### Model Number

| DZ25-3L, DZ25-6L(Aluminum Alloy)

1.Lift both side levers, take off the upper block.

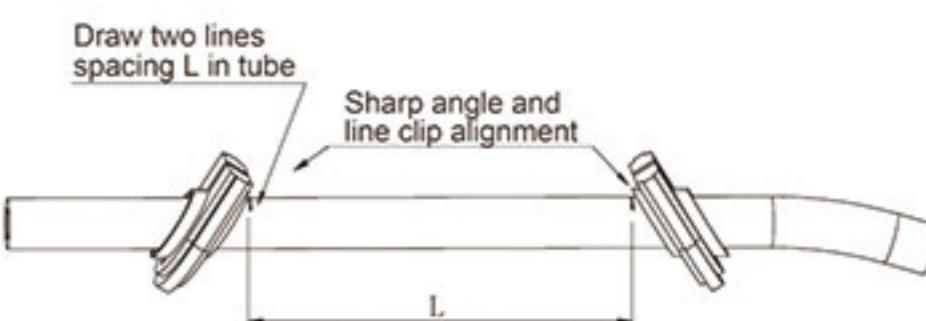


### Tubing Installation Procedure

2.Put the tubing with cartridge or connector into pump housing.



3.Install the upper block, put down the levers to lock the block.



### Tubing Clamp

DZ25-6L: the tubing length is 125mm between both tubing clamps.

DZ25-3L: the tubing length is 90mm between both tubing clamps.

Model No.	Housing Material	Tubing Clamp Material	Tubing		Flow Rate (mL/min) (0.1-600rpm)	Weight (kg)
			Tubing Sizes	ID×Wall Thickness		
DZ25-6L	Aluminum alloy	PP	15"	4.8×2.4(mm)	0.3~1800	1.86
			24"	6.4×2.4(mm)	0.55~3300	
			35"	7.9×2.4(mm)	0.8~4800	
			36"	9.6×2.4(mm)	1~6000	
DZ25-3L	PPS/PSF	PP	15"	4.8×2.4(mm)	0.211~1264	1.16/0.5
			24"	6.4×2.4(mm)	0.385~2310	
			35"	7.9×2.4(mm)	0.508~3050	
			36"	9.6×2.4(mm)	0.6~3600	

## Low Pulsation Pump Head

DY15,DY25



### Tubing Installation Procedure

1.Lift both side levers, take off the upper block.



2.Put the tubing with tubing clamp into pump housing.



### Product Introduction

The 'low pulsation' pump head is specialized for high precision filling. Through the phase difference between the two sets of rollers, make the pulse crest and trough complementary, reducing the fluid pulsation effectively, reach high precision liquid transferring.

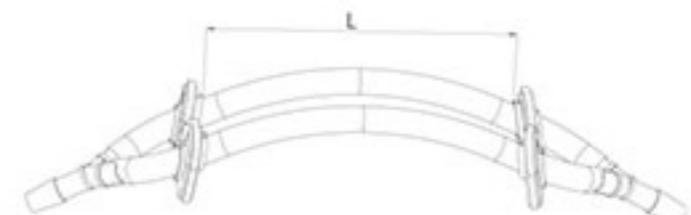
### Model Number

| DY15, DY25

### Typical Application

High precision dosing micro liquid.

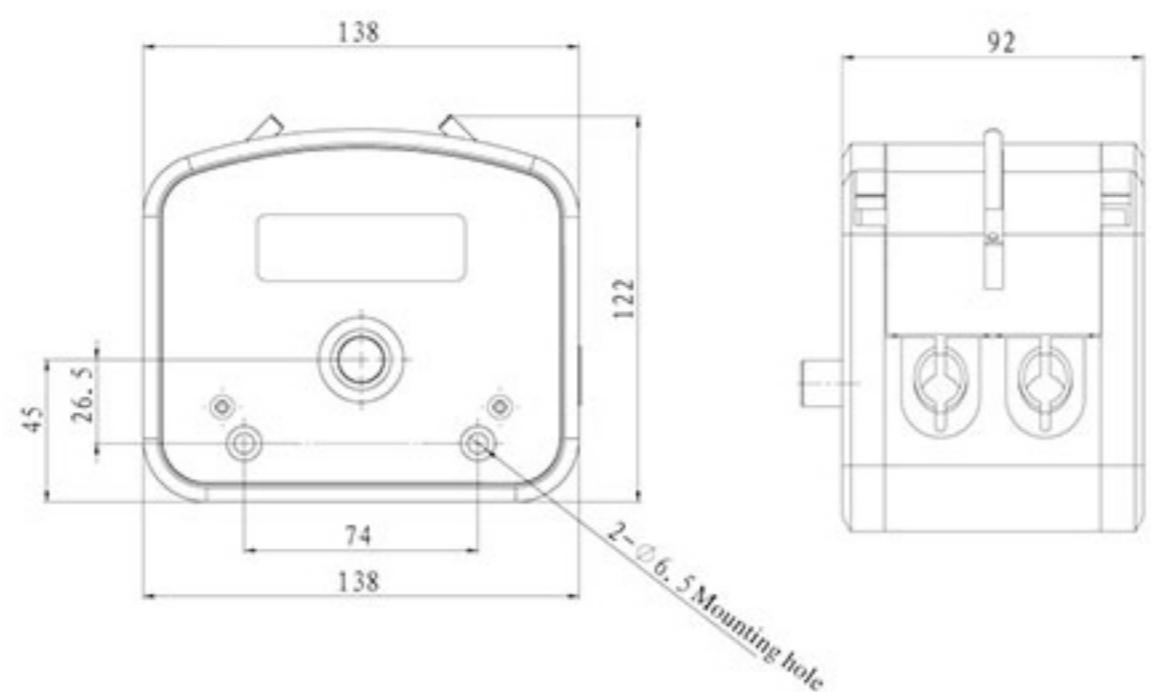
"Y" connector and tubing cartridge schematic diagram  
The tubing length is 126mm between two cartridges



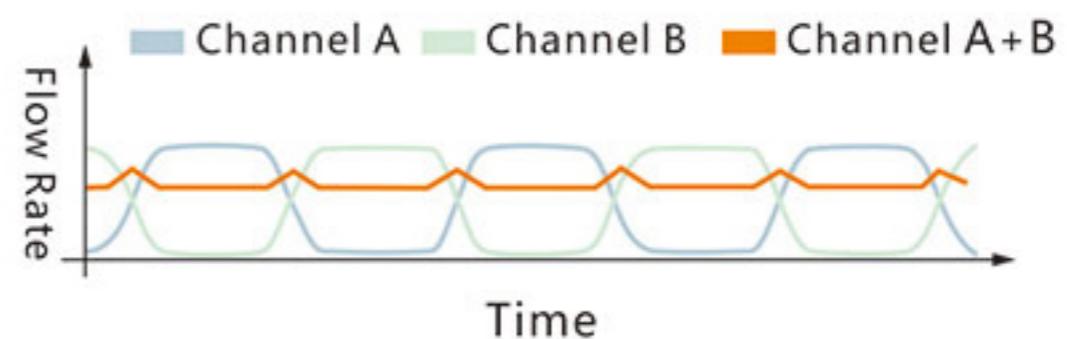
3.Install the upper block, put down the levers to lock the block.



### Installation Sizes Drawing (Unit: mm)



### Pulsation Reduction Schematic Diagram



### Technical Specifications

Model No.	Housing Material	Tubing Clamp Material	Tubing		Flow Rate (mL/min) (0.1-350rpm)	Weight (kg)
			Tubing Sizes	ID×Wall Thickness		
DY15	Aluminum alloy	PP	13"	0.8×1.6(mm)	0.01~48	3.2
			14"	1.6×1.6(mm)	0.06~223	
			19"	2.4×1.6(mm)	0.13~448	
			16"	3.1×1.6(mm)	0.2~723	
			25"	4.8×1.6(mm)	0.47~1626	
			17"	6.4×1.6(mm)	0.64~2230	
			18"	7.9×1.6(mm)	0.95~3337	
DY25	Aluminum alloy	PP	15"	4.8×2.4(mm)	0.42~1480	1.24~4340
			24"	6.4×2.4(mm)	0.76~2670	
			35"	7.9×2.4(mm)	0.1~360	
			36"	9.6×2.4(mm)	1.24~4340	



## Planetary Gear Industrial Pump Head

DZ45



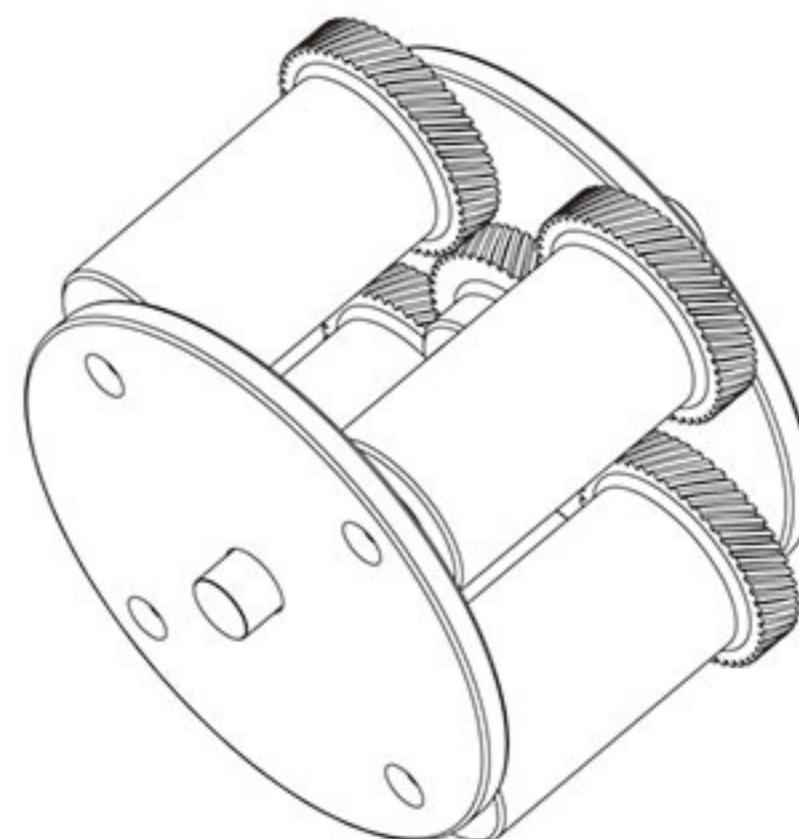
### Product Introduction

Planetary gear industrial pump head use aluminum alloy shell, 304 stainless steel rollers, long lifetime, corrosion resistance; four rollers design to reduce pulsation; planetary gear rollers, driven type rotor, spring lock block; big flow rate, high pressure, suitable for transfer high viscous and high lift liquid.

### Model Number

| DZ45

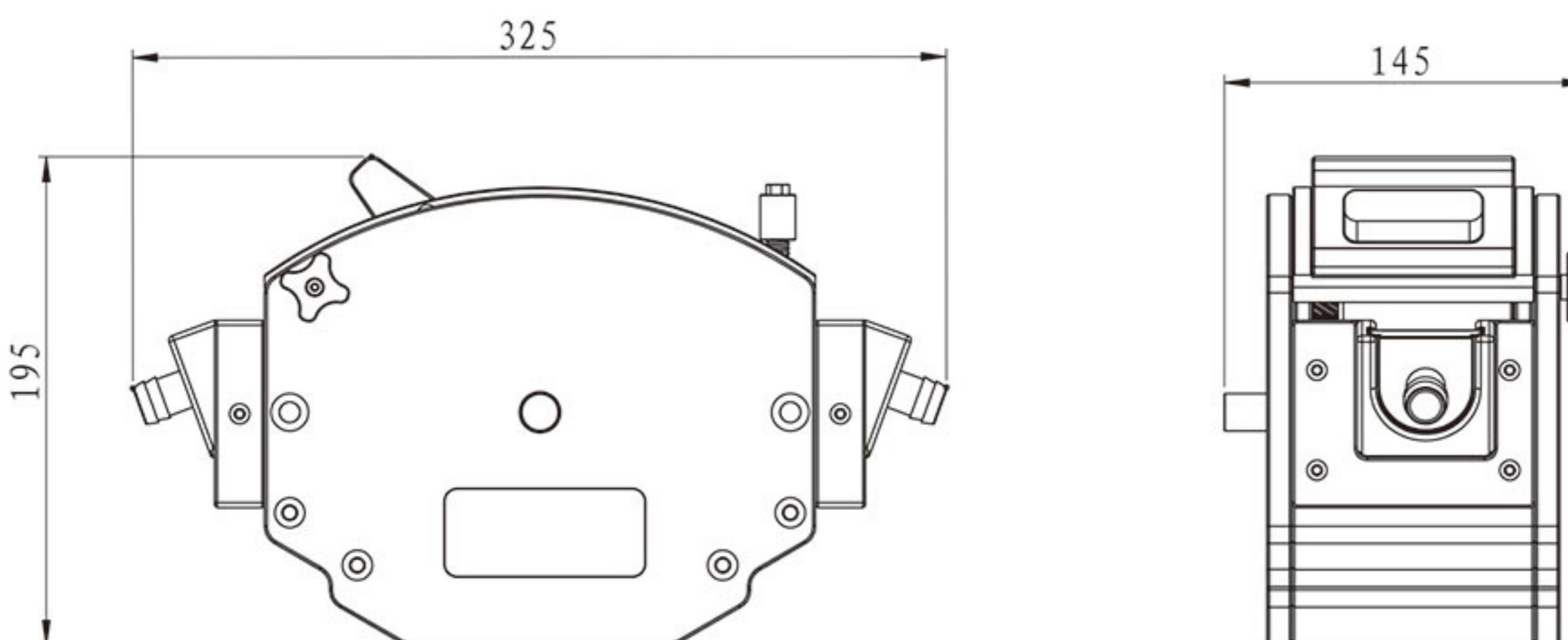
### Roller Components Graph



### Typical Application

- | Bio-medical
- | Chemical industry
- | Environmental protection

### Dimension Drawing (Unit: mm)

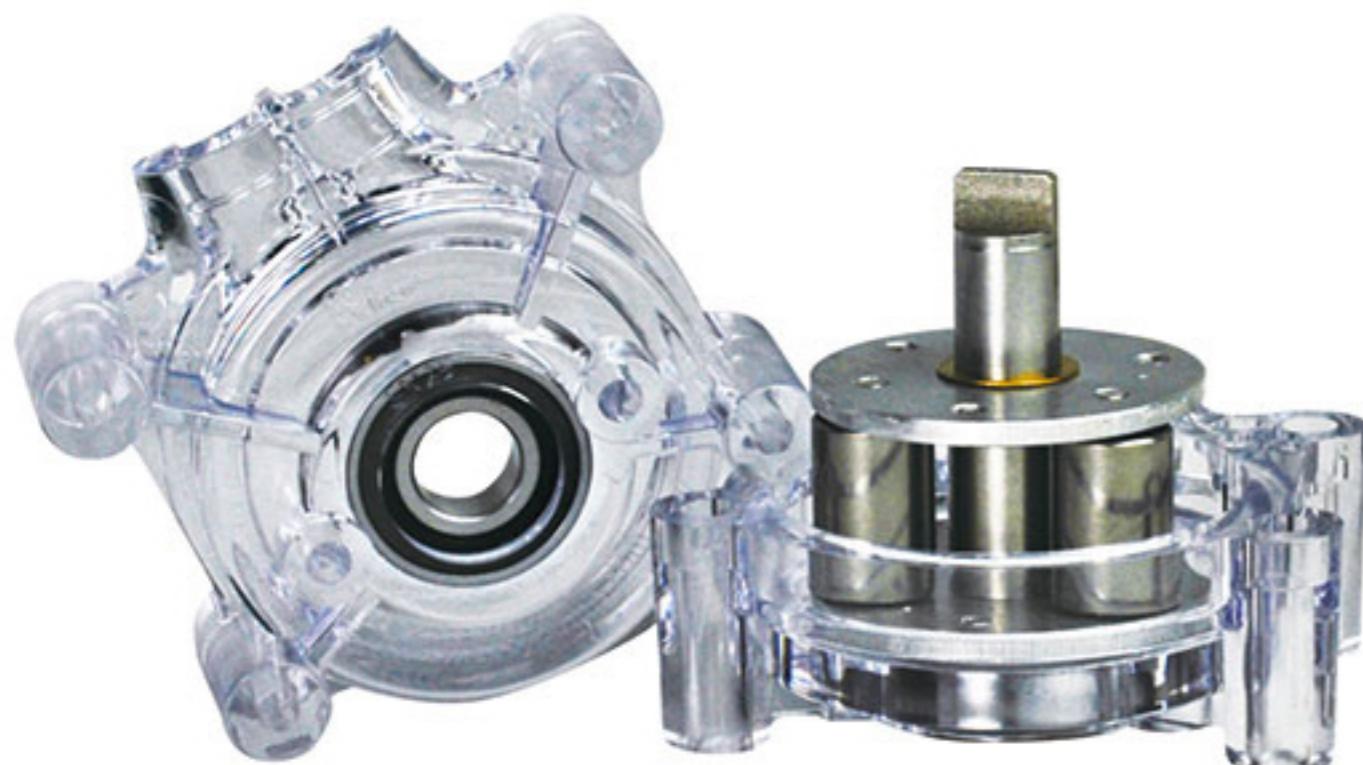


### Product Composition and Flow Rate Range

Pump Head	Shell Material	Roller Material	Tubing		Speed (rpm)	Flow Rate (L/min)	Tubing Max. Pressure(Mpa)		Weight
			Size	ID*Wall thickness (mm)			Continuous	Intermittent	
DZ45	Aluminum alloy	304	88# 92#	12.7*4.8 25.4*4.8	30-300	2.6-26 3.6-36	0.25	0.3	9.3kg

## Standard Pump Head

**SN25,SN15-14,SN15-16**



### Product Introduction

Standard pump head with compact structure, exquisite appearance, fixed occlusion and stable running. Can stack several pump heads, and support various equipment.

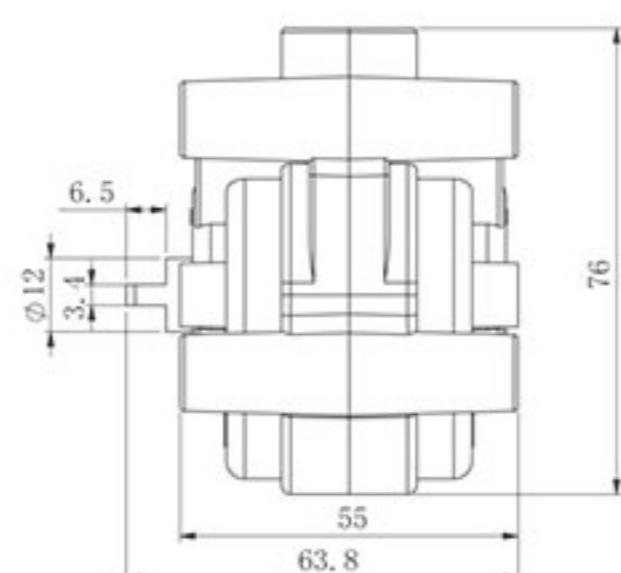
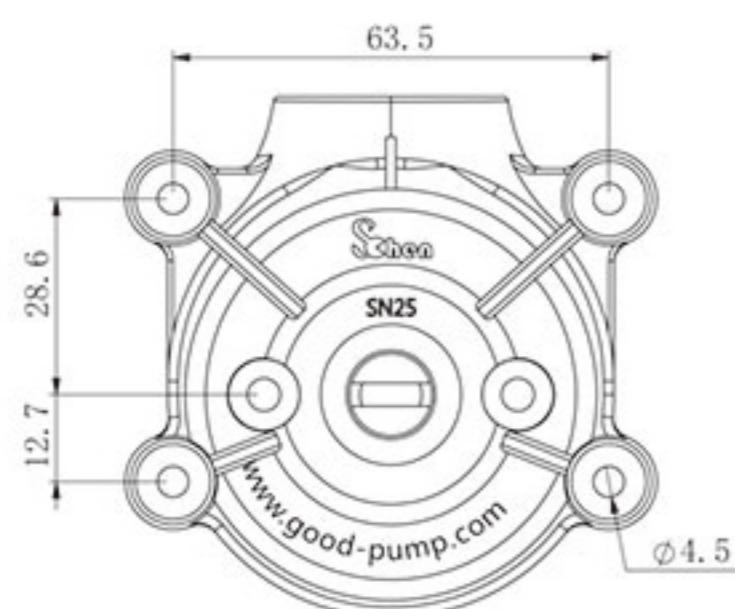
### Model Number

- | SN25, SN15-14, SN15-16

### Typical Application

- | Use in the ice cream machine and coffee making machine
- | Support COD on-line monitor

### Installation Sizes Drawing (Unit: mm)



SN15-14



SN15-16

### Tubing Installation Procedure

A. Disassemble the pump head, and press the tubing on the rollers.



B. Make the tubing go around the rollers one cycle, and merge it on the exit.



C. Tighten the tubing aptly, and load the other half pump head body.

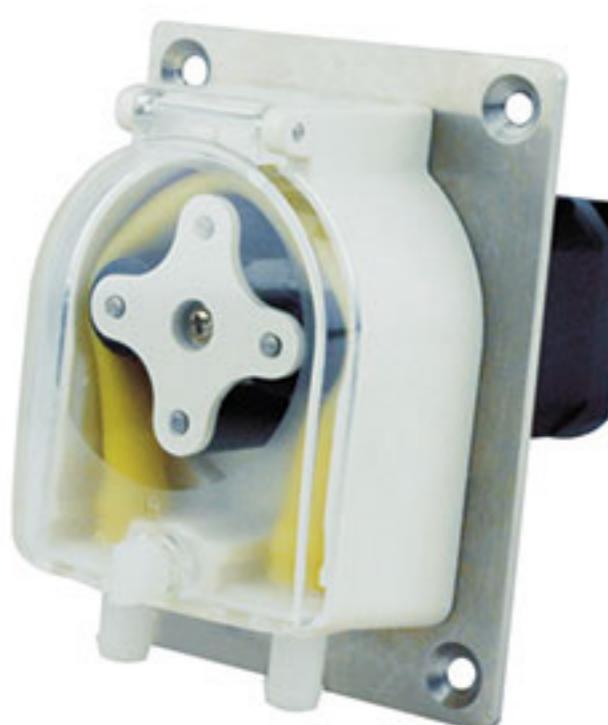


### Technical Specifications

Model No.	Housing Material	Rollers Material	Tubing		Flow Rate (mL/min) (0.1-600rpm)	Weight (kg)
			Tubing sizes	ID×Wall thickness		
SN15-14	PC	304 stainless steel	14"	1.6×1.6(mm)	0.024~144	0.20
SN15-16			16"	3.1×1.6(mm)	0.088~528	
SN25			24"	6.4×2.4(mm)	0.25~1500	



## OEM Product



UD15



### Product Introduction

PES material, transparent protecting cover, easily to observe the working situation of pump head and tubing at any time. Various of colors are available.

There is water-proof groove in the pump head mounting side.

Can use stepper motor, DC motor, AC motor and so on to drive.

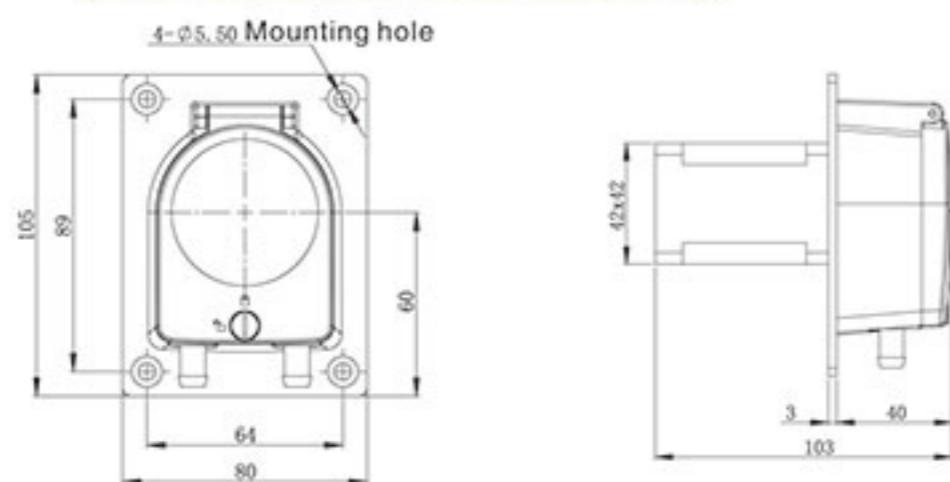
### Typical Application

| Support various of instrument

#### Stepper Motor



#### Outline dimensional drawing

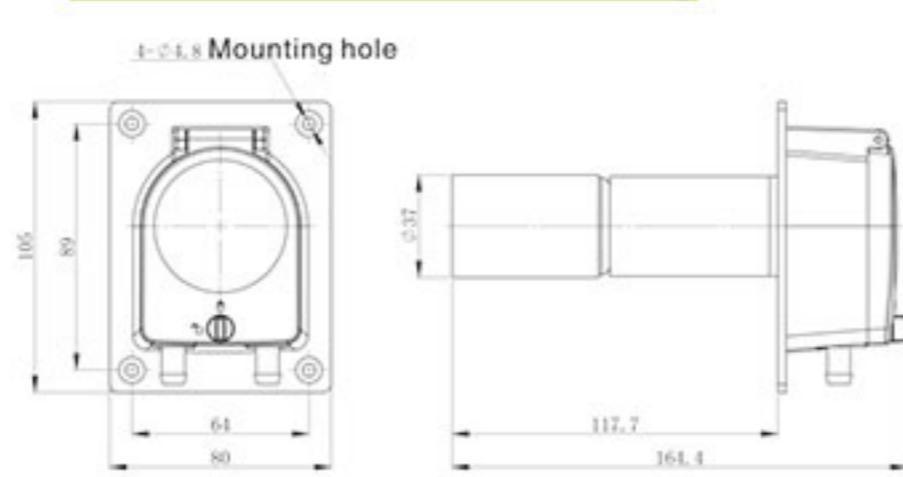


Model No.	OEM-UD15B01
Speed range	≤350rpm
Max. flow rate	1000mL
Motor type	42 Stepper motor
Motor phase number	2
Motor step angle	1.8°
Motor phase voltage	3V
Motor phase current	3A

#### DC Motor



#### Outline dimensional drawing

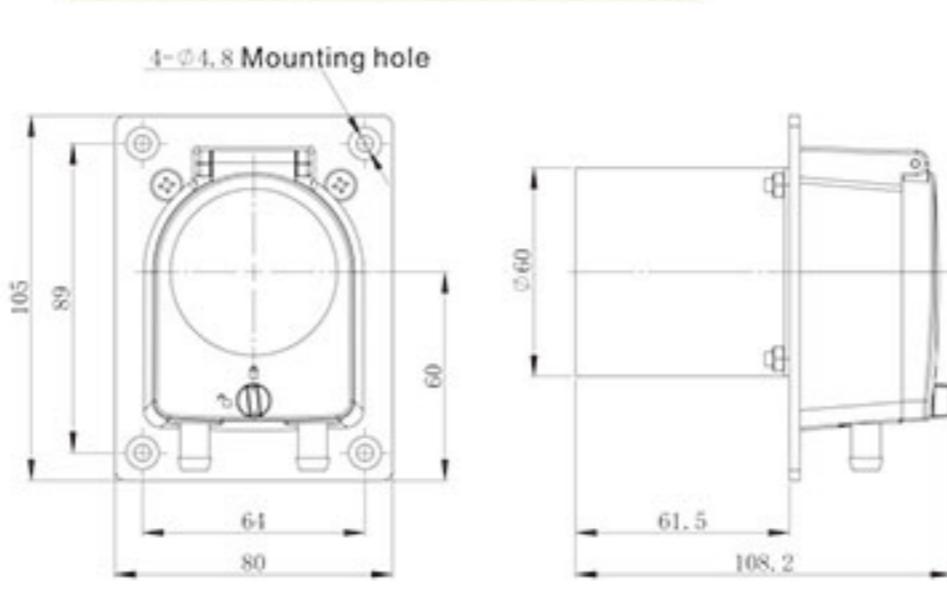


Model No.	Speed (rpm)	Power Supply	Motor Type
OEM-UD15Z01	60	DC12V/DC24V DC planetary gear motor	φ 37
OEM-UD15Z02	100		
OEM-UD15Z03	150		
OEM-UD15Z04	200		
OEM-UD15Z05	300		
OEM-UD15Z06	350		

#### AC Motor



#### Outline dimensional drawing



Model No.	Speed (rpm)	Power Supply	Motor Type
OEM-UD15J01	2.5	AC110V /AC220V	AC synchronous motor
OEM-UD15J02	5		
OEM-UD15J03	10		
OEM-UD15J04	15		
OEM-UD15J05	20		
OEM-UD15J06	30		
OEM-UD15J07	40		
OEM-UD15J08	50		
OEM-UD15J09	60		

#### Tubing Installation Procedure

1. As below picture, turn the holding pin to unlocking position



2. Open the transparent cover



3. Install the tubing



4. Close the transparent cover, and turn the holding pin to unlocking position



#### Technical Specifications

Model No.	Housing Material		Tubing		Speed Range(rpm)	Flow Rate (mL/min)	Weight (kg)
	Body	Protective cover	Tubing Sizes	ID×Wall Thickness			
UD15	PES	Transparent PC	16"	3.1×1.6(mm)	0.1~350	0.08~280	0.12
			25"	4.8×1.6(mm)		0.16~580	
			17"	6.4×1.6(mm)		0.30~1000	

## OEM Product



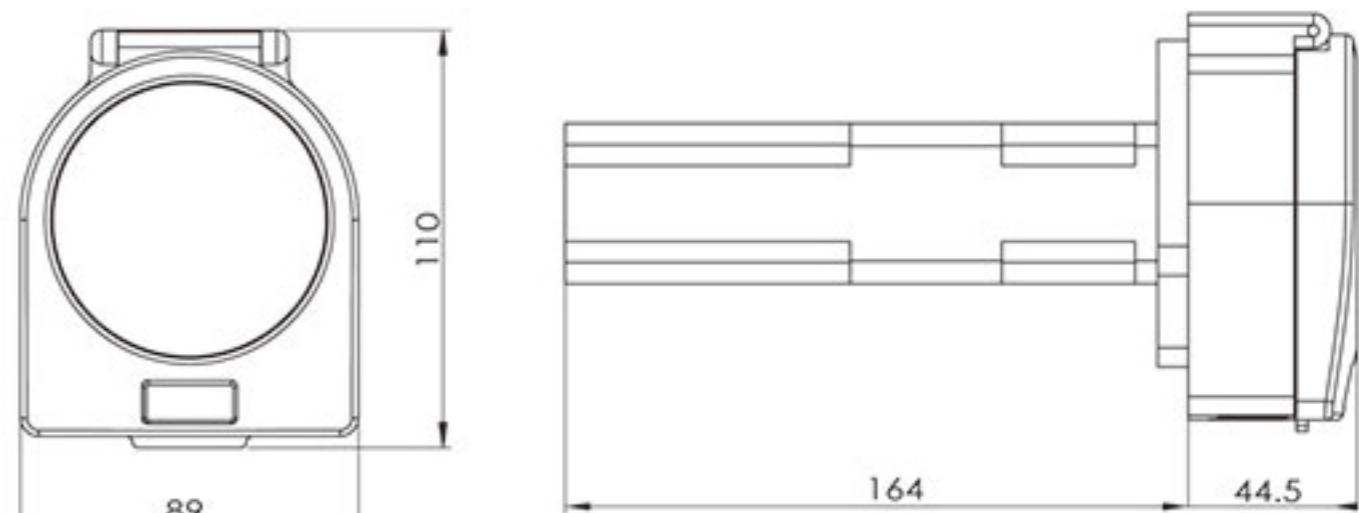
### UC15

### Product Introduction

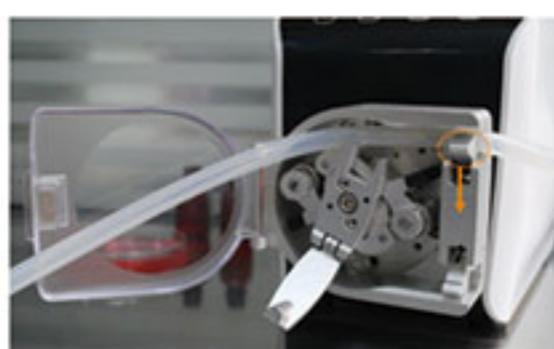
UC15 spring pump head is widely used for medical dialysis equipment. Transparent protective cover, can observe the working situation anytime; uncover signal output, stop working when uncover to ensure safety; Elastic roller assembly, running smoothly; manual lever help install the tube, and can finish liquid circulation when power down unexpectedly; support stepper motor or brushless DC motor.

### Installation Sizes Drawing (Unit: mm)

Support brushless DC motor



### Tubing Installation Procedure



1. Press the pipe clamp, put the tube into the U shaped groove.



2. Put the tube between the two guide posts. Hold the spanner, rotate the wheel body.

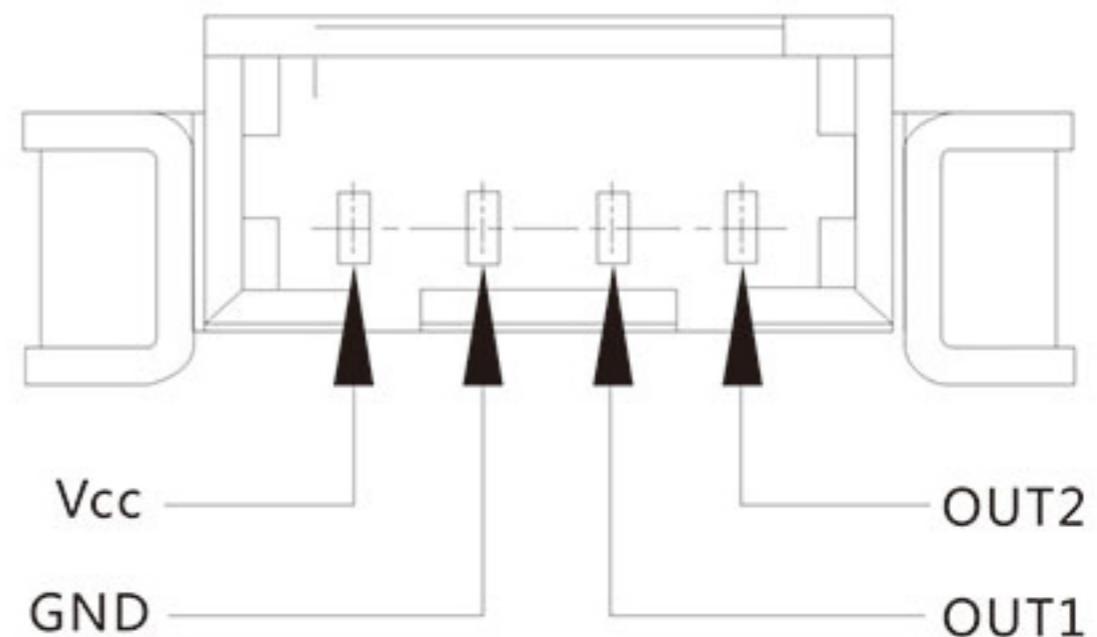


3. Press the pipe clamp, put the tube into the U shaped groove.



4. Installation is finished.

### Uncover output signal description



### Motor Data

Speed range	0.1-200 rpm	Motor type	Stepper motor
Speed resolution	0.1 rpm	Output signal	Uncover signal (Active signal DC12V)

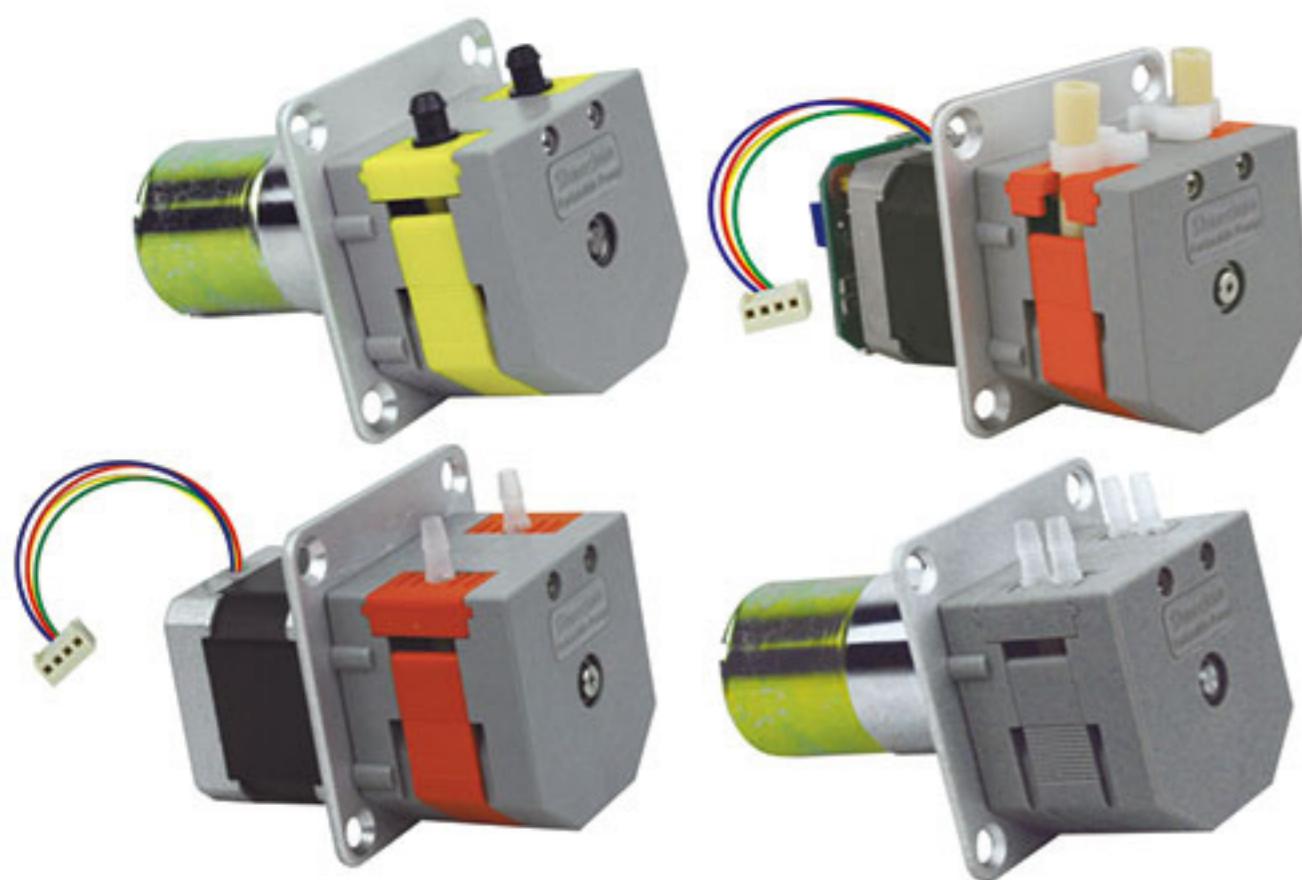
### Technical Specifications

Model	Housing Material	Tubing		Speed Range(rpm)	Flow Rate (mL/min)	Weight(kg)
		Size	ID×Wall(mm)			
UC15	Aluminum alloy /PC	19#	2.4×1.6	0.1-200	0.08~183	0.5
		16#	3.1×1.6		0.15~320	
		25#	4.8×1.6		1.1~699	
		17#	6.4×1.6		2~1270	
		18#	7.9×1.6	0.1-60	2.8~1719	
		Medical dialysis tube			0.86~500	



## OEM Product

### MiniPump Series



#### Product Introduction

Minipump series products which adopt compact and embedded design are more suitable for supporting a variety of instruments and equipments. Single and dual channel are optional. It accepts 8 kinds of tubing. Flow rates are 0.0024-190 mL/min. PharMed BPT long-life tubing from French Saint-Gobain is installed in internal part of pump head. Applicable motors for Minipump are stepper motor, DC motor, AC motor and other modes to drive with wide applications.

#### Features

- | Attractive appearance, compact structure.
- | Easy to operate and economical cost.
- | Accept many kinds of motors to drive.
- | Supply several colors of appearance, ideal for supporting analytical instruments.

#### Typical Application

- | Discharge condensate water in the flue gases survey meter.
- | Support biochemistry analytical instruments.

#### Tubing Installation Procedure

A. Make the two tubing clamps align the slide way of pump head two sides.



B. Ensure that the tubing is in the middle of rollers, and push the clamps into the pump head.



C. Make the compression block align the upper slide way of pump head.



D. Press the compression block into the pump head, and ensure it fixed.



Pigment accurate allocation

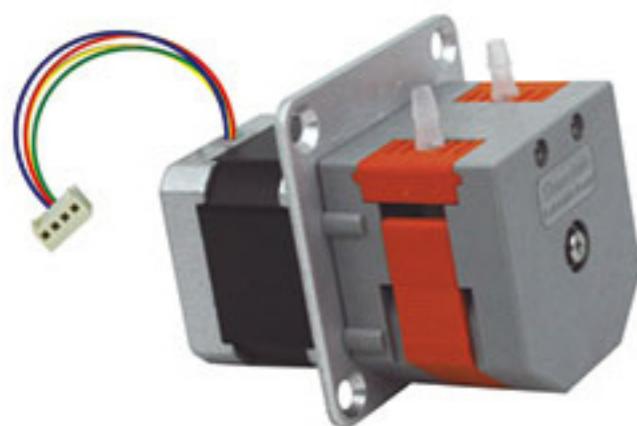
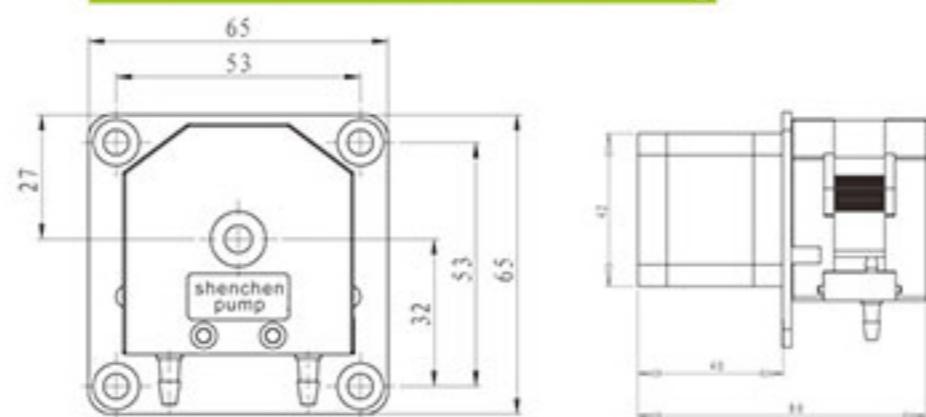


Reagents dispensing



PH control system sampling



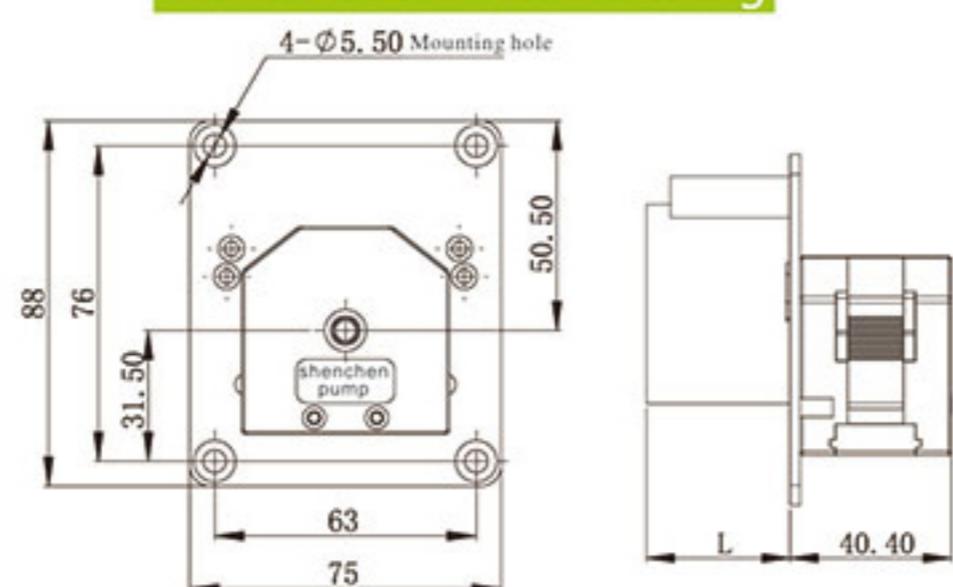
**OEM-B01****Outline dimensional drawing**

Speed range	$\leq 300$ rpm
Max flow rate	190mL/min
Motor type	42 stepper motor
Motor phase number	2
Motor step angle	1.8
Motor phase voltage	2.2V
Motor phase current	1.0A

**OEM-MZ Serise****Outline dimensional drawing**

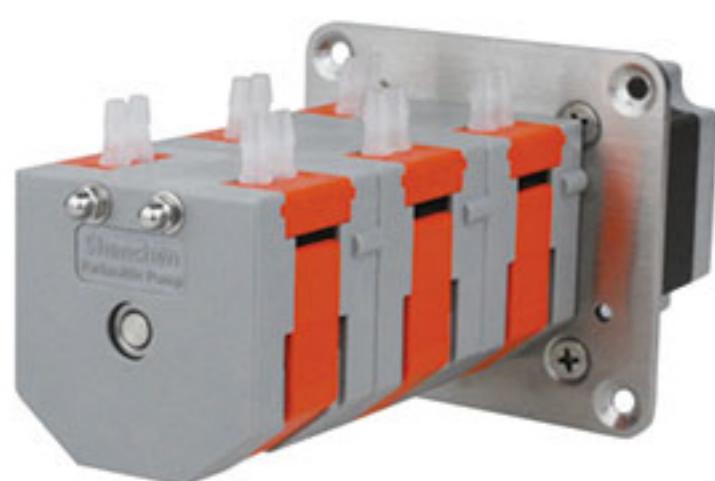
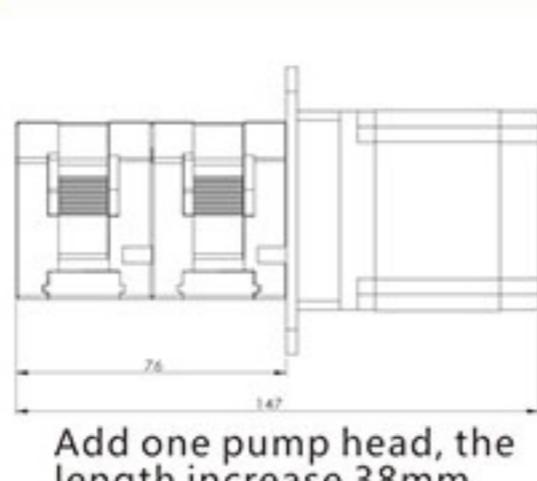
Model No.	Rotation Speed (rpm)	Power Supply	Motor Type
OEM-MZ01	170		
OEM-MZ11	5		
OEM-MZ12	10		
OEM-MZ13	15		
OEM-MZ14	20		
OEM-MZ15	30		
OEM-MZ16	50		
OEM-MZ17	100		
OEM-MZ18	160		
OEM-MZ19	167		
OEM-MZ20	278		

DC 12V or DC 24V      Ø 37 DC Motor

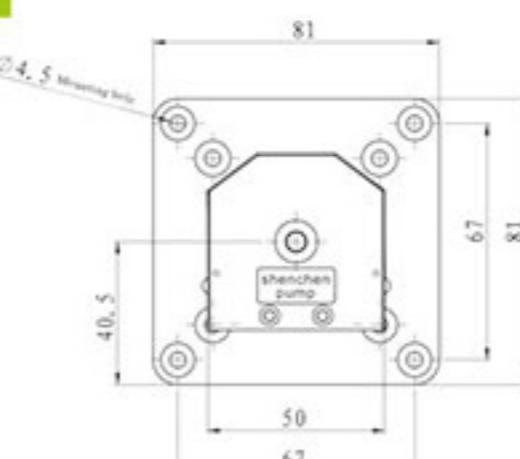
**OEM-MJ Serise****Outline dimensional drawing**

Model No.	Rotation Speed (rpm)	Direction of rotation	Power Supply	Motor Type
OEM-MJ101	2.5/3			
OEM-MJ102	4/5	Unidirectional		
OEM-MJ103	5/6			
OEM-MJ201	4.2/5			
OEM-MJ202	5/6	Bidirectional		
OEM-MJ203	11.7/14			

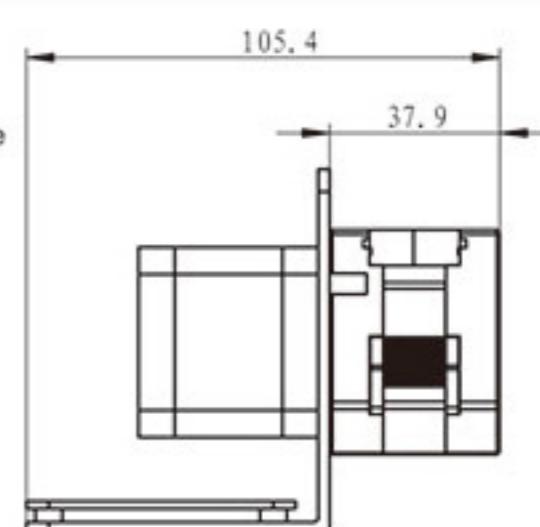
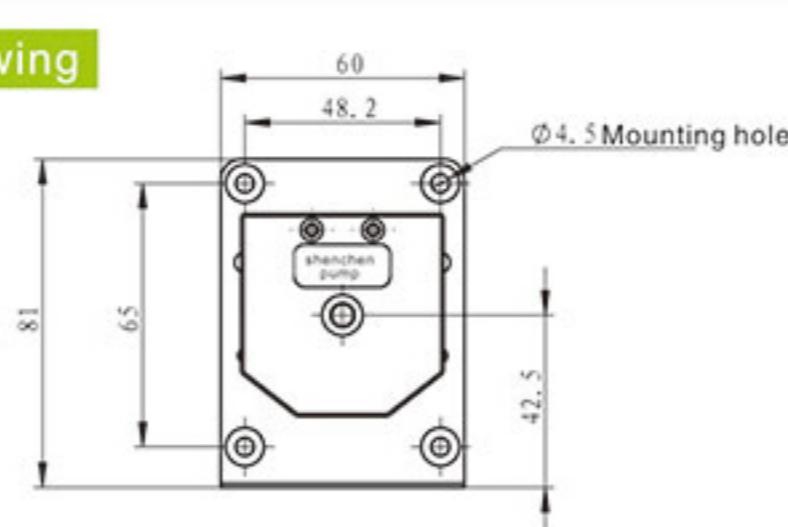
Note: In the rotation of speed, /\* represents the rotation speed in 50/60HZ.

**OEM-B126****Outline dimensional drawing**

Add one pump head, the length increase 38mm



Speed range	$\leq 300$ rpm
Max flow rate	190mL/min
Pump head	MiniPump-N
Motor type	57 stepper motor
Motor phase number	2
Motor step angle	1.8
Motor phase voltage	3.75V
Motor phase current	3.0A

**OEM-B013, OEM-B014****Outline dimensional drawing****OEM-B013 Technical Specifications**

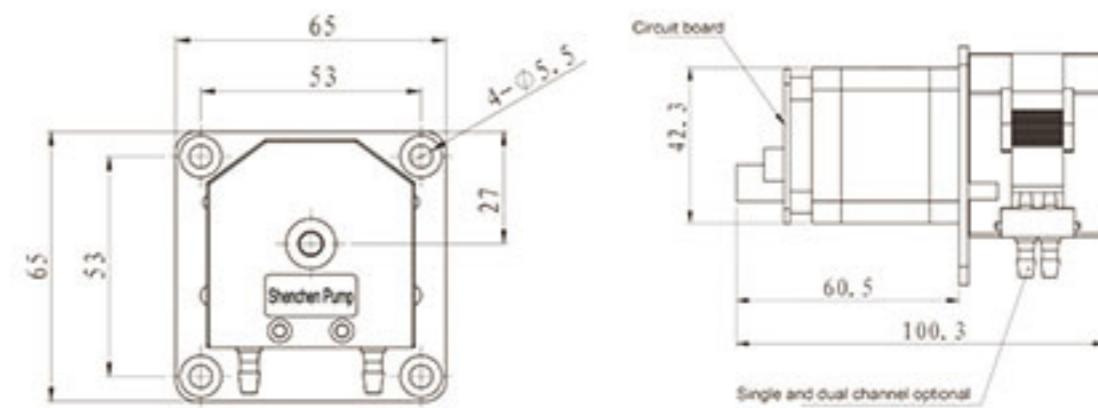
Speed range	0.1-300rpm
Flow rate range	0.0024-190ml/min
Communication interface	RS232, RS485 interface modbus protocol, control start/stop, direction and speed
Address setting	1-32
Motor type	42 stepper motor
Input voltage	DC 24V
Power	<30W

**OEM-B014 Technical Specifications**

Speed range	0.1-300rpm
Flow rate range	0.12-190ml/min
Speed control	Potentiometer speed regulation
External analog signal control	0-5V, 0-10V, 4-20mA 3 analog signal for option
External control	Start/stop,direction (external passive signal control)
Motor type	42 stepper motor
Input voltage	DC 24V
Power	<30W

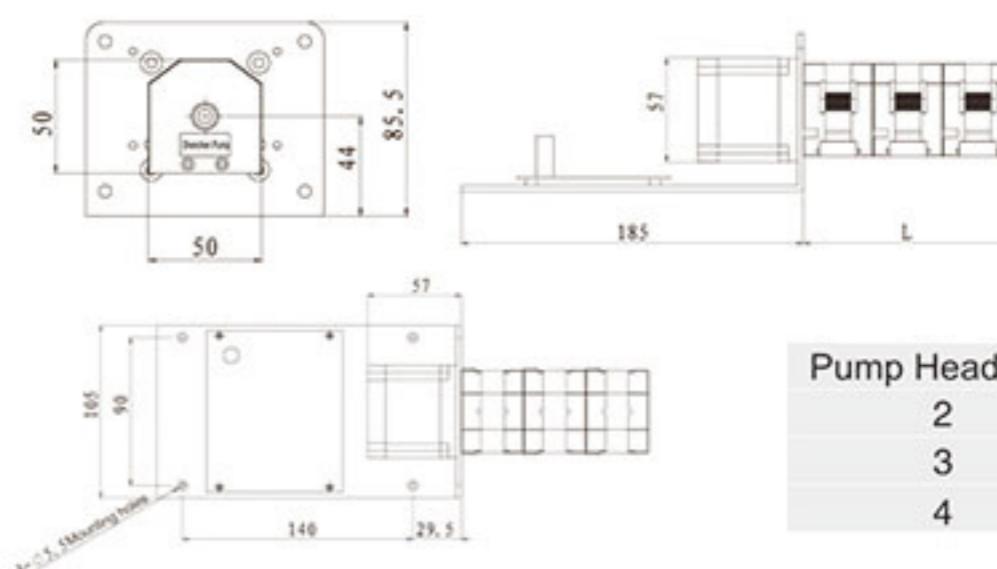


**OEM-B02、OEM-B03**

**Outline dimensional drawing**


OEM-B02 Technical Specification		OEM-B022 Technical Specification		OEM-B03 Technical Specification	
Speed range	0.1-300 rpm	Speed range	0.1-300 rpm	Speed range	0.1-300 rpm
Flow rate range	0.0024-190mL/min	Flow rate range	0.0024-190mL/min	Flow rate range	0.0024-190mL/min
Speed control	Presetspeed or RS232 speed control	Speed control	Adjustspeed by internal potentiometer	Speed control	External input pulse frequency speed control
Subdivision settings	1/16	Subdivision settings	1/16	Multiple segments	1/16(recommend), 1, 1/2, 1/4, 1/8, 1/32, 1/64, 1/128
Motor type	42 stepper motor	Motor type	42 stepper motor	Motor type	42 stepper motor
Input voltage	DC 24V	Input voltage	DC 24V	Input voltage	DC 24V
Power	< 24W	Power	< 24W	Power	< 24W

**OEM-B136、OEM-B137**

**Outline dimensional drawing**


Pump Head NO.	L
2	75.6
3	113.4
4	151.2

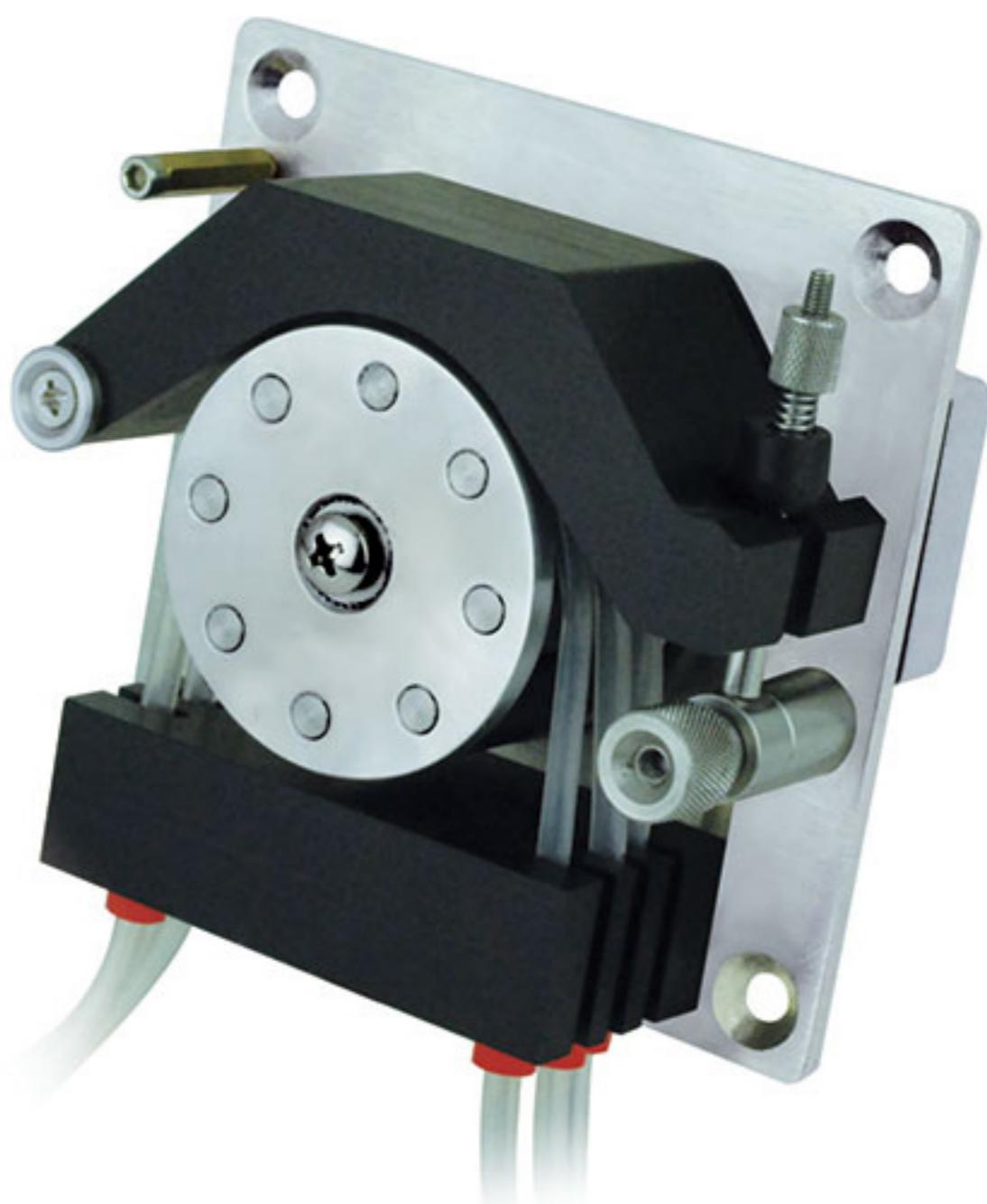
OEM-B136 Technical Specifications		OEM-B137 Technical Specifications	
Speed range	0.1-300 rpm	Speed range	0.1-300 rpm
Flow rate range	0.0024-190mL/min	Flow rate range	0.0024-190mL/min
Speed control	Preset speed and manual control	Speed control	Pulse frequency speed control
Control mode	External passive signal level (normally closed or open) mode; control the start/stop of direction	Logic input voltage	5V, 12V, 24V(default 5V)
Display(optional)	0.96" OLED screen	Multiple segments	1/16(recommend), 1, 1/2, 1/4, 1/8, 1/32, 1/64, 1/128
Motor type	57 stepper motor	Motor type	57 stepper motor
Input voltage	DC 24V	Input voltage	DC 24V
Power	< 60W	Power	< 60W

Motor Speed(rpm)	Dual Channel Flow Rate (mL/min) and Tubing (1 mm wall thickness)			
	ID 1mm	ID 2mm	ID 2.5mm	ID 3mm
5	0.25	0.90	1.28	1.78
10	0.49	1.84	2.59	3.52
15	0.74	2.76	3.85	5.30
25	1.25	4.57	6.43	8.80
40	2.00	7.31	10.25	14.02
50	2.52	9.14	12.78	17.47
75	3.76	13.64	19.04	26.12
100	5.03	18.17	25.42	35.34
200	10.12	36.45	51.27	71.44
250	12.63	45.75	64.34	88.35
300	15.01	54.63	76.84	108.39

Motor Speed(rpm)	Single Channel Flow Rate (mL/min) and Tubing (1.6 mm wall thickness )			
	13° ID 0.8mm	14° ID 1.6mm	16° ID 3.1mm	25° ID 4.8mm
5	0.12	0.56	1.97	3.26
10	0.26	1.15	3.90	6.41
15	0.39	1.74	5.80	9.52
25	0.66	2.88	9.59	15.74
40	1.08	4.59	15.29	25.15
50	1.34	5.69	18.96	31.14
75	2.00	8.54	28.36	46.55
100	2.73	11.37	37.66	61.98
200	5.46	22.76	76.02	124.14
250	6.81	28.40	95.08	153.63
300	8.28	33.88	114.31	190.00

## OEM Product

MD3



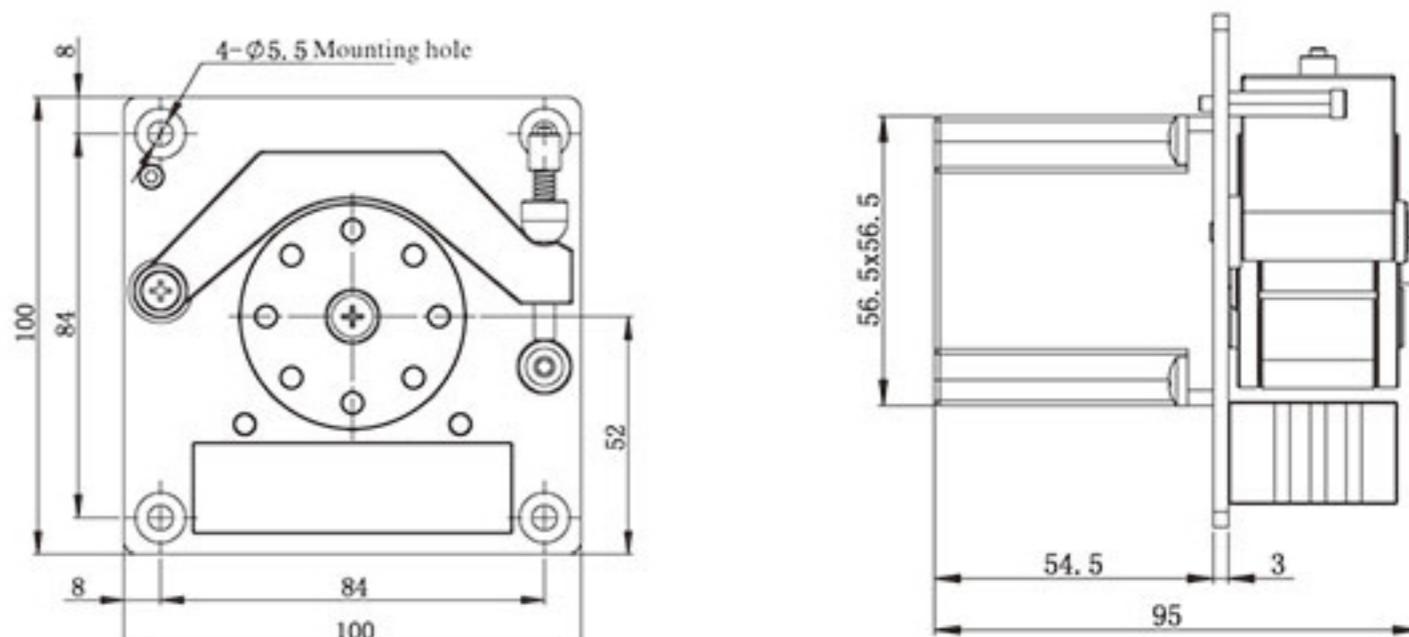
**Model Number** | MD3

**Typical Application** | Support analytical instruments

### Product Introduction

Suitable for liquid transferring of small flow rate and multiple channels. Complete compression block design, can improve the accuracy among channels effectively; with the function of micro adjustment occlusion, to micro adjust the flow rate and outlet pressure. Eight rollers design, reduce the liquid pulsation; embedded design, very suitable for equipment supporting.

### Installation Sizes Drawing (Unit: mm)



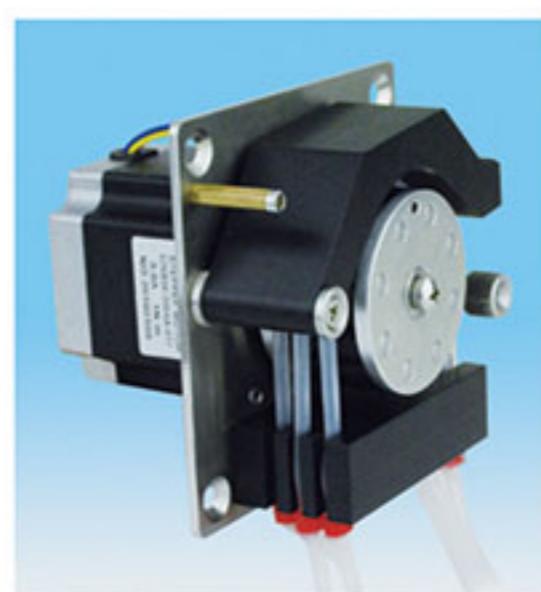
### Tubing Installation Procedure



1.Turn the spanner clockwise.



2.Install tubing one by one, from inside to outside.



3.Tubing installation finished.



4.Turn spanner anticlockwise, locking the upper block, micro adjust the occlusion.

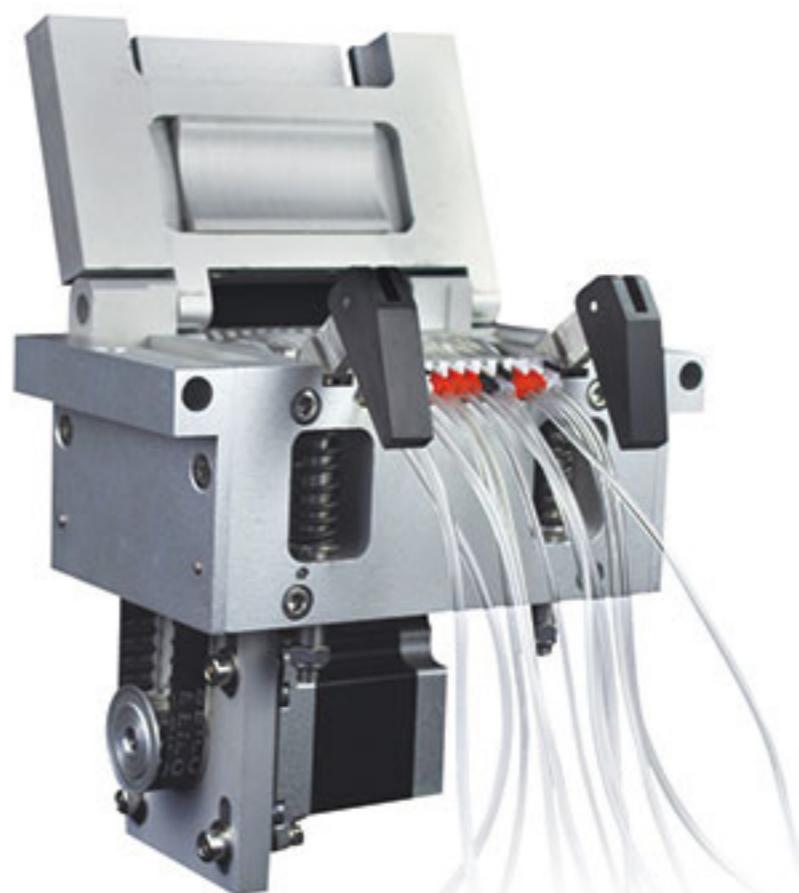
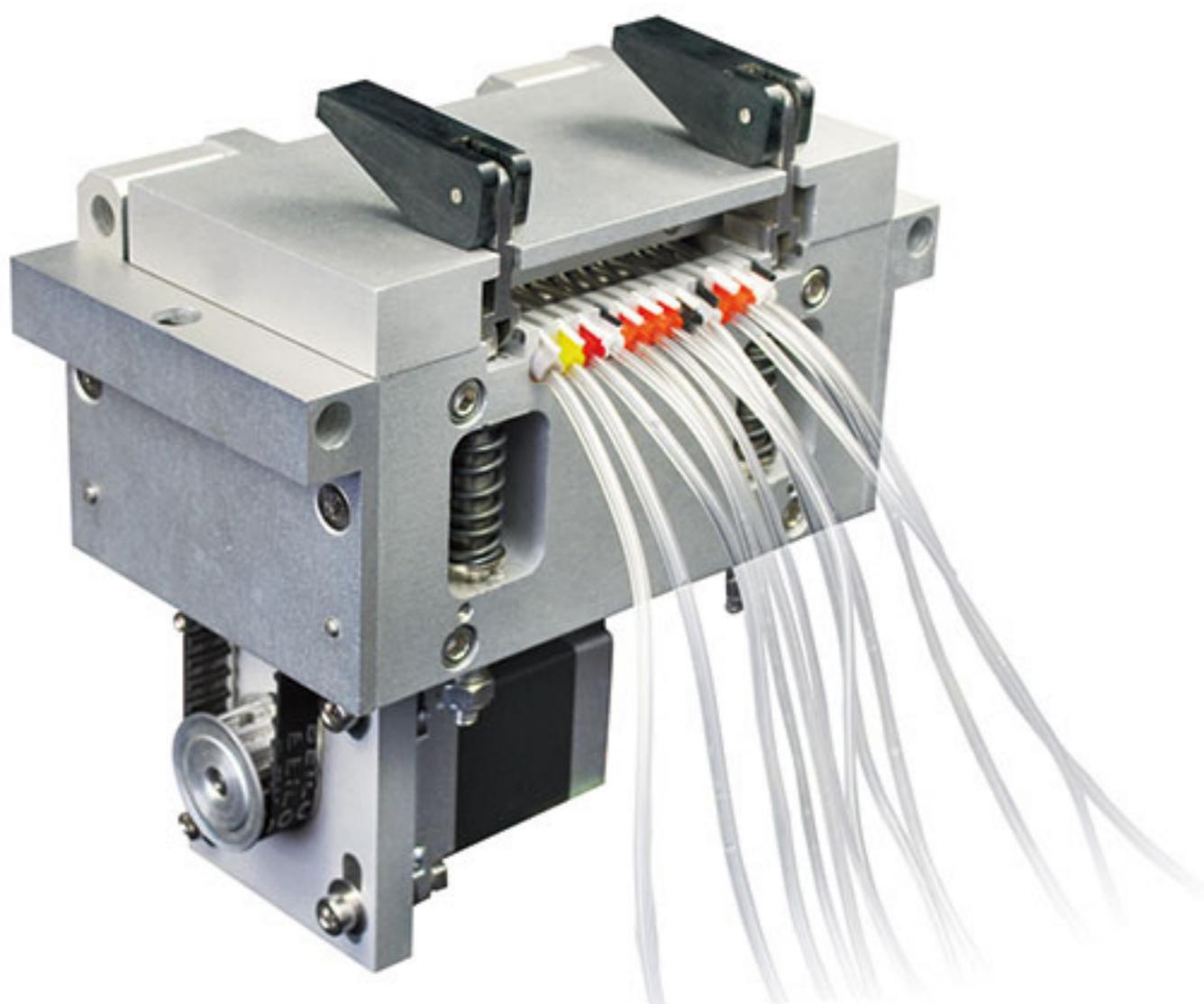
### Technical Specifications

Pump Head	Channel Number	Speed	Tubing	Flow Rate (0.1-300rpm)	Rollers Number	Rollers Material	Tubing Maximum Pressure (Mpa)
MD3	3	0.1-300 (rpm)	1×1	0.007-20.95 mL/min (each channel)	8 rollers	POM	Intermittent 0.1 Continuous 0.1
			2×1	0.0244-74mL/min (each channel)			
			2.79×0.86	0.0356-107mL/min (each channel)			

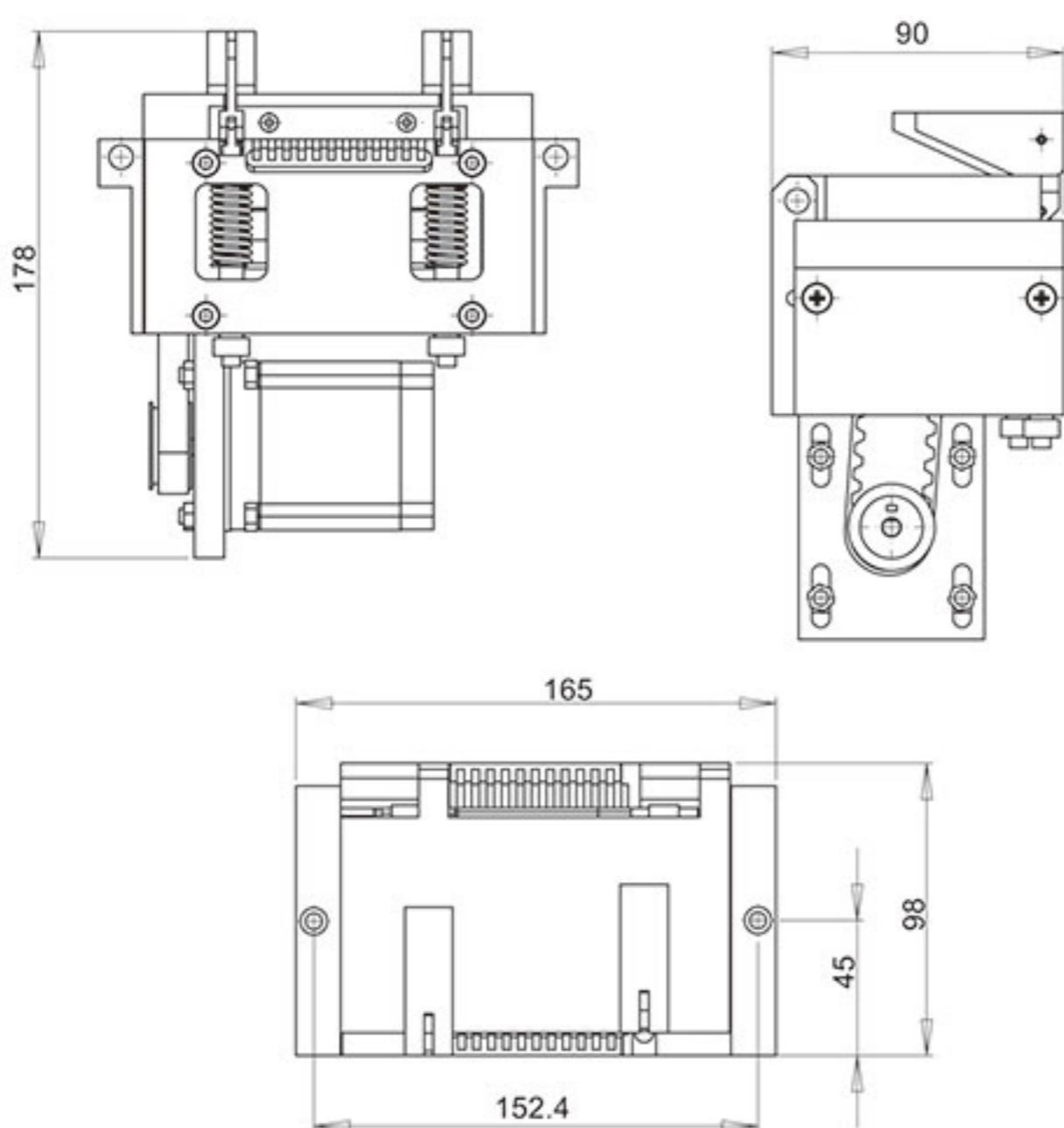


## OEM Product

MT12



### Installation Sizes Drawing (Unit: mm)



### Product Introduction

The unique complete compression solve the big error problem between channels from traditional multichannel pump.

Accept many kinds of motors drive, such as stepper motor, DC motor, AC motor and servo motor.

### Model Number

| MT12

### Typical Application

| Support chemistry analytical instruments

### Technical Specifications

Model No.	Housing Material	Rollers Material	Channel Number	Rollers Number	Speed (rpm)	Tubing and Flow Rate per channel (mL/min)				Tubing Maximum Pressure (Mpa)	
						0.51×0.9	1.02×0.86	2.06×0.86	2.54×0.86	Intermittent	Continuous
MT12	Aluminum alloy	304/316 stainless steel	12 channels	10 rollers	0.1-50	0.0016~0.84	0.005~2.5	0.015~7.5	0.020~10.5	0.2	0.15

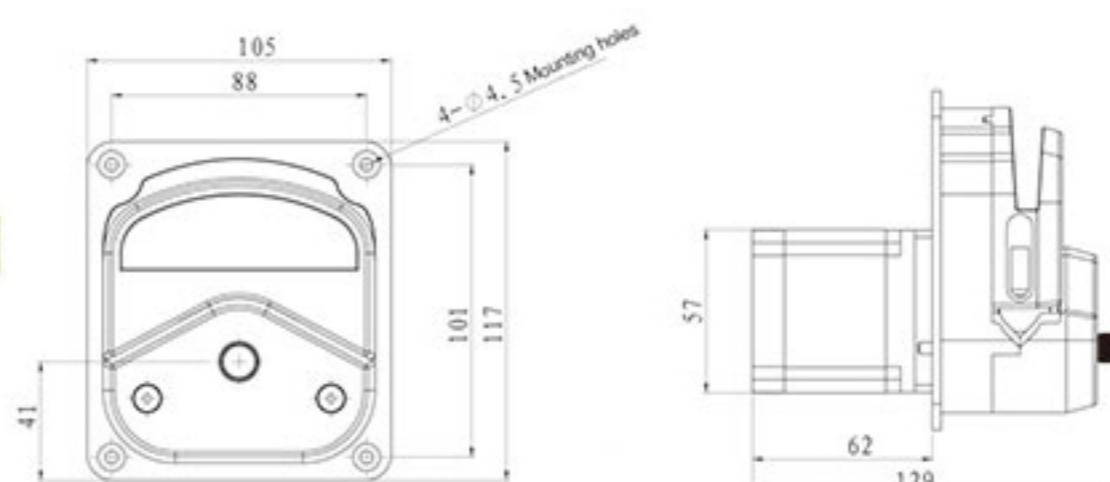
## OEM Product

### OEM-B130 ( Compact Type)



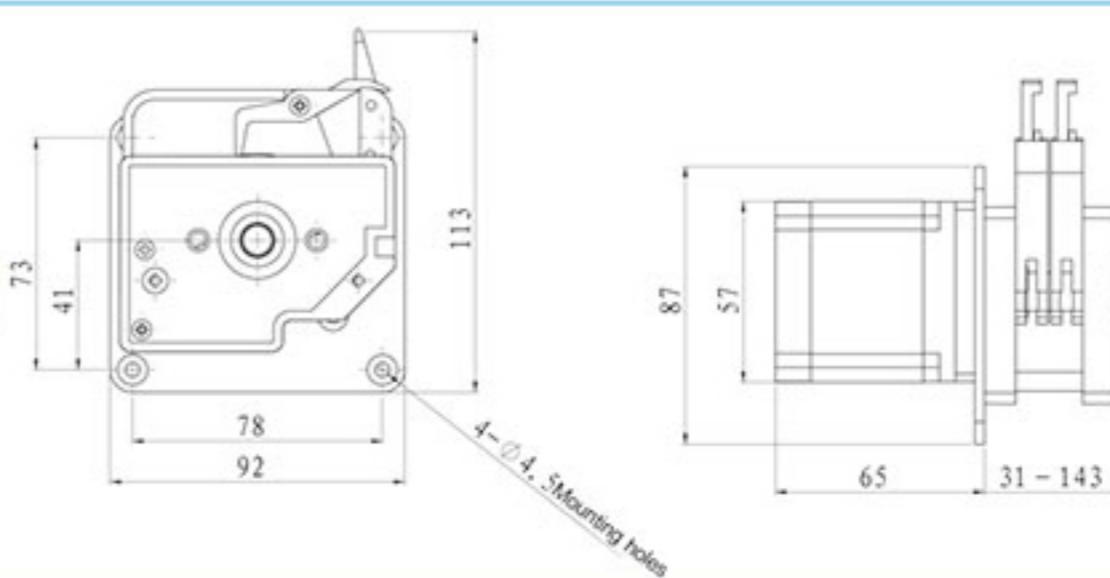
57 stepper motor

Outline dimensional drawing



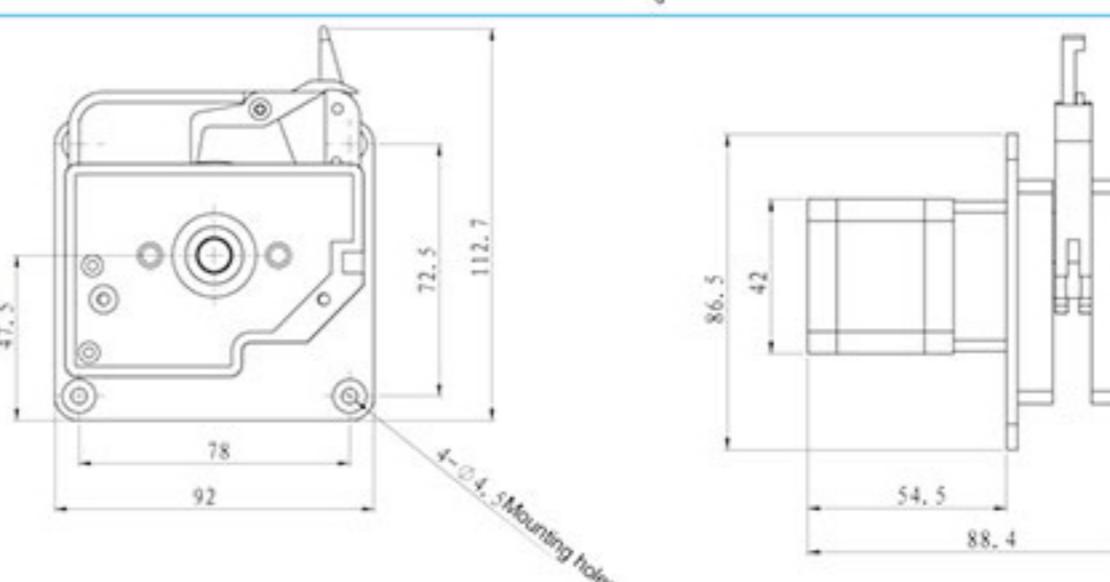
57 stepper motor

Outline dimensional drawing



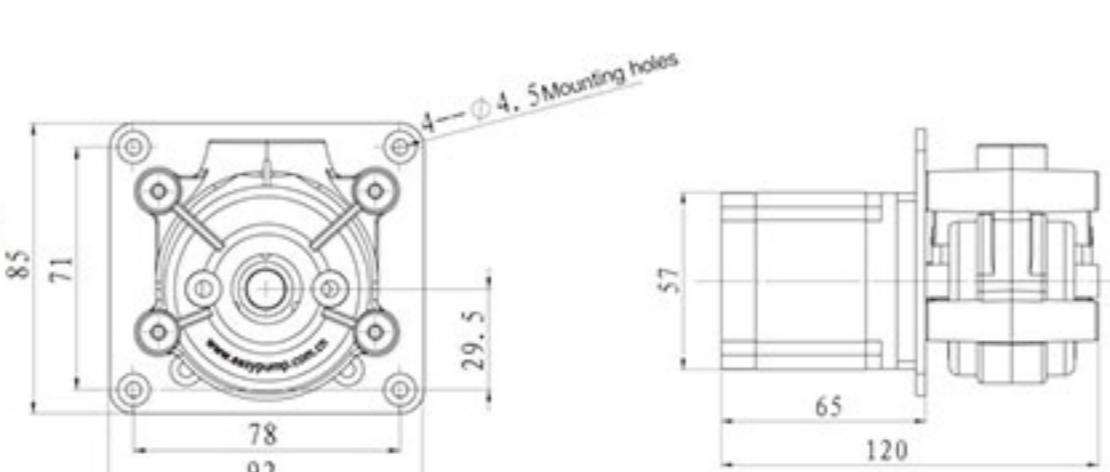
42 stepper motor

Outline dimensional drawing



57 stepper motor

Outline dimensional drawing



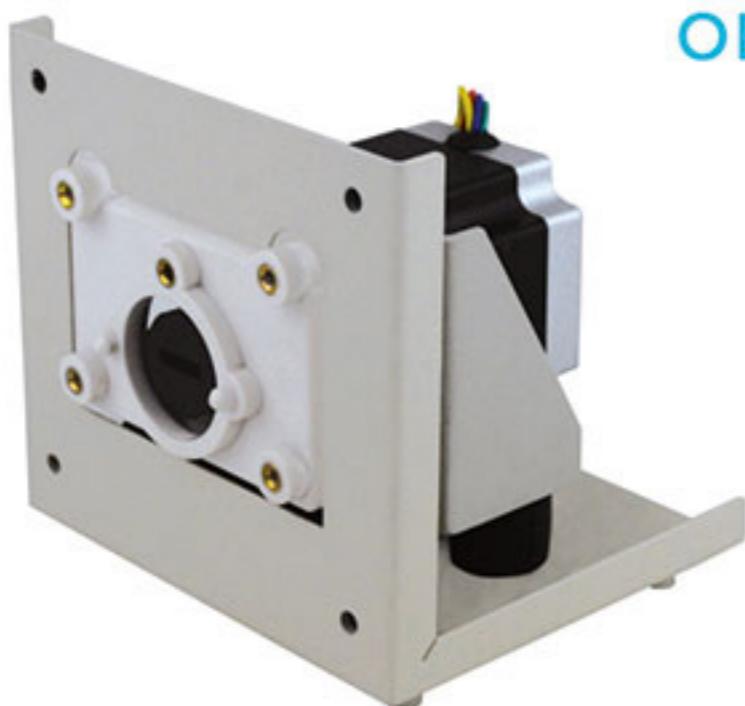
Speed range	≤350 rpm
Max flow rate	1330mL/min
Motor type	57 stepper motor/42 stepper motor
Motor phase number	2
Motor step angle	1.8°
Motor phase voltage	3.75V
Motor phase current	3.0A

#### Tubing & Flow Rate

Pump Head	Tubing	Flow Rate ( mL/min )
YZ1515x	13", 14", 19", 16", 25", 17", 18"	≤1330
YZ2515x	15", 24"	≤1015
MC1-MC8	ID : 0.13-3.17mm Wall thickness : 0.8-1mm	≤49(10 roller), ≤65(6 roller)
SN Series	14", 16", 24"	≤875



## OEM Product



**OEM-B19 Series**



MC1~ MC8



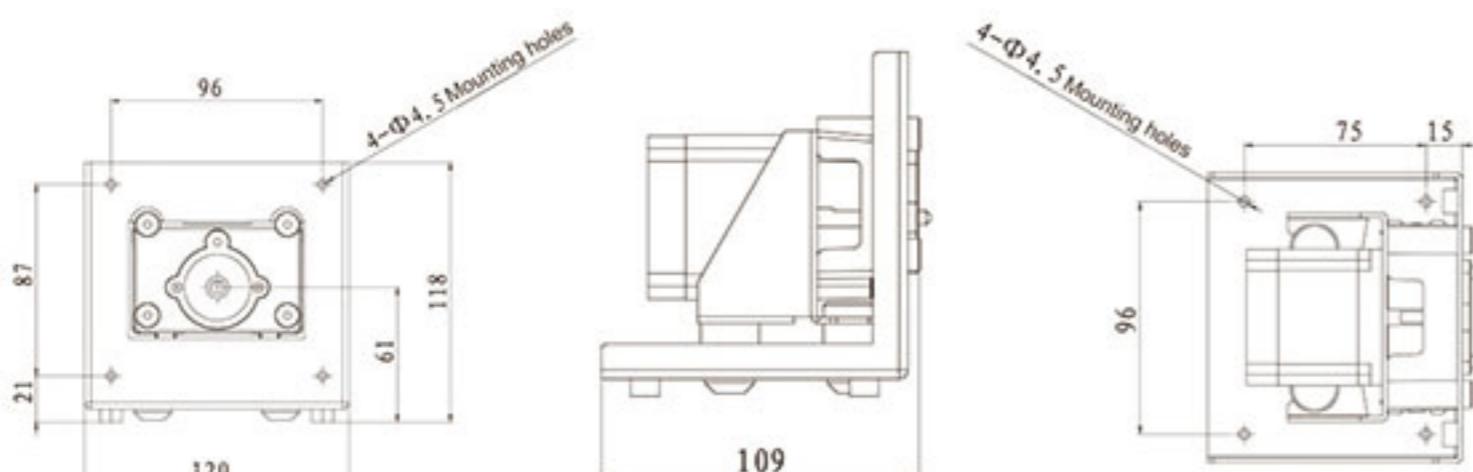
Yz1515x, YZ2515x

Suitable Pump Head



Sn15, SN25

### Outline dimensional drawing

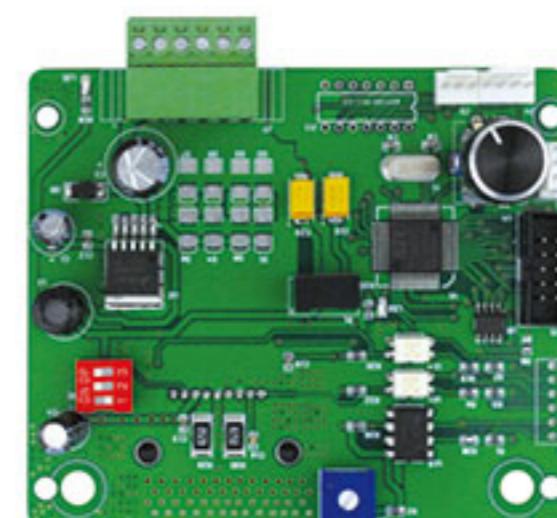
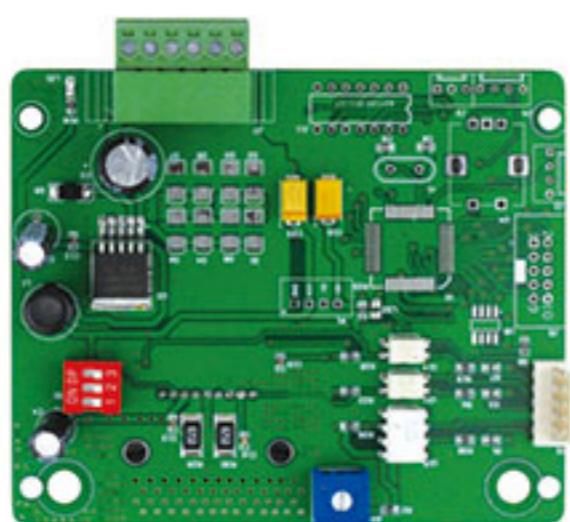


Speed range	≤350 rpm
Max flow rate	1330mL/min
Motor type	57 stepper motor
Motor phase number	2
Motor step angle	1.8°
Motor phase voltage	3.75V
Motor phase current	3.0A

### Tubing&Flow rate

Pump Head	Tubing	Flow Rate ( mL/min )
YZ1515x	13", 14", 19", 16", 25", 17", 18"	≤1330
YZ2515x	15", 24"	≤1015
MC1-MC8	ID : 0.13-3.17mm Wall thickness : 0.8-1mm	≤32(10 rollers), ≤45(6 rollers)
SN Series	14", 16", 24"	≤875

### User driven / speed type control board



PD03 Main board technical specification		PMD07 Main board technical specification	
Speed range	0.1-350 rpm	Speed range	0.1-350 rpm
Speed control	Pulse frequency speed control	Speed control	Preset speed or manual control
Logic input voltage	5V, 12V, 24V(default 5V)	Control mode	External passive signal level (normally closed or open) mode; control the start/stop and direction
Multiple segments	1/16(recommend), 1, 1/2, 1/4, 1/8, 1/32 1/64, 1/128	Display(optional)	0.96" OLED screen
Input voltage	DC 24V	Input voltage	DC 24V
Power	<60W	Power	<60W
Dimension (L*W)	98.48×82.68 mm	Dimension (L*W)	98.48×82.68 mm

## OEM Product



OEM Drive



MC1~ MC8



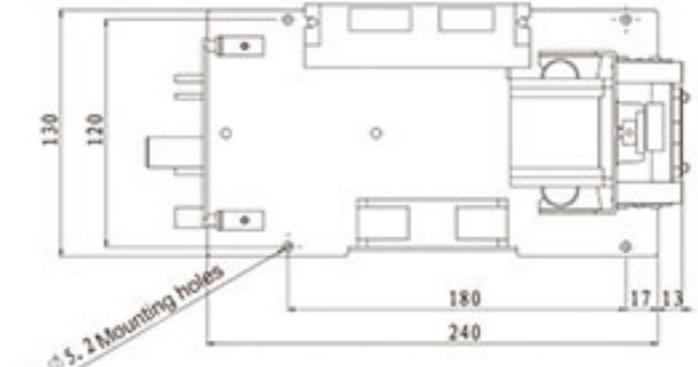
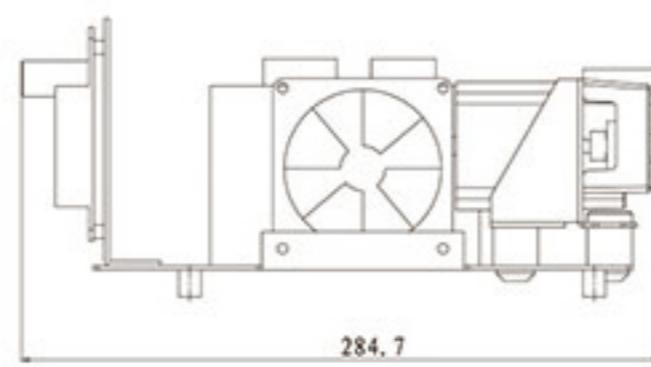
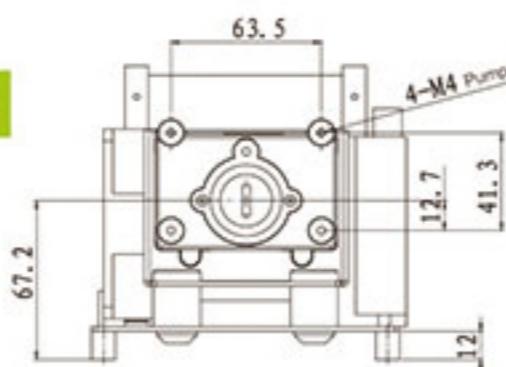
YZ1515x,YZ2515x

Suitable Pump Head



SN15,SN25

Outline dimensional drawing



### PM01 Mainboard technical specification

Speed range	0.1-600 rpm(optional)
Flow rate range	0.000166-2280mL/min
Speed resolution	0.1rpm
Display	0.96" OLED screen(optional)
Speed control	Preset speed or membrane keypad speed control (optional)
Control mode	membrane keypad
External control	Start/stop,change direction signal ;Active switch signal: 5V (standard)
Communication interface	RS485 support Modbus protocol (RTU mode)
External control speed	0-5V,0-10V,4-20mA(optional)
Motor type	57 stepper motor
Input voltage	24V
Power	< 60W

### PM02 Mainboard technical specification

Speed range	0.1-600 rpm(optional)
Flow rate range	0.000067-2280mL/min
Speed resolution	0.1rpm
Display	0.96" OLED screen(optional)
Speed control	Preset speed or membrane keypad speed control (optional)
Control mode	Toggle switch
External control	Start/stop;Active switch signal: 5V (standard)
Communication interface	RS485 support Modbus protocol (RTU mode)
External control speed	0-5V,0-10V,4-20mA(optional)
Motor type	57 stepper motor
Input voltage	24V
Power	< 60W

### Tubing&Flow rate

OEM Drive	Pump Head & Flow Rate (mL/min)						
	YZ1515x	YZ2515x	MC1~MC12(10)	MC1~MC12(6)	SN25	SN15-14	SN15-16
OEM Number (main board)&rotation speed	Tubing 13", 14", 19", 16" 25", 17", 18"	15", 24"	Inner diameter: 0.13-3.17mm Wall thickness: 0.86-1mm		24"	14"	16"
OEM-B145(PM01)	0.1-150rpm	0.007~570	0.17~435		0.25~375	0.024~36	0.088~132
OEM-B147(PM02)				0.000166-49 (suggest working rotating speed ≤150rpm)	0.000185-65 (suggest working rotating speed ≤150rpm)		
OEM-B146(PM01)	0.1-350rpm	0.007~1330	0.17~1015		0.25~875	0.024~84	0.088~308
OEM-B148(PM02)							
OEM-B221(PM01)	0.1-600rpm	0.007~2280	0.17~1740		0.25~1500	0.024~144	0.088~528
OEM-B222(PM02)							



## OEM Product



**OEM-Z Series**



MC1 ~ MC12

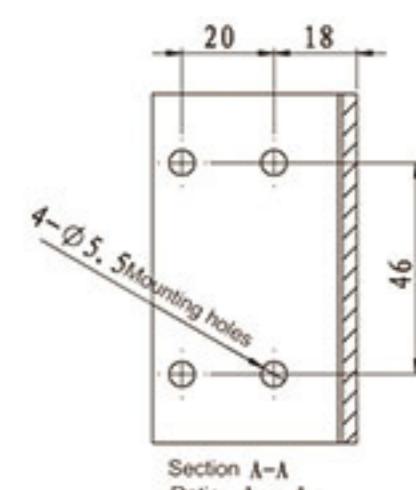
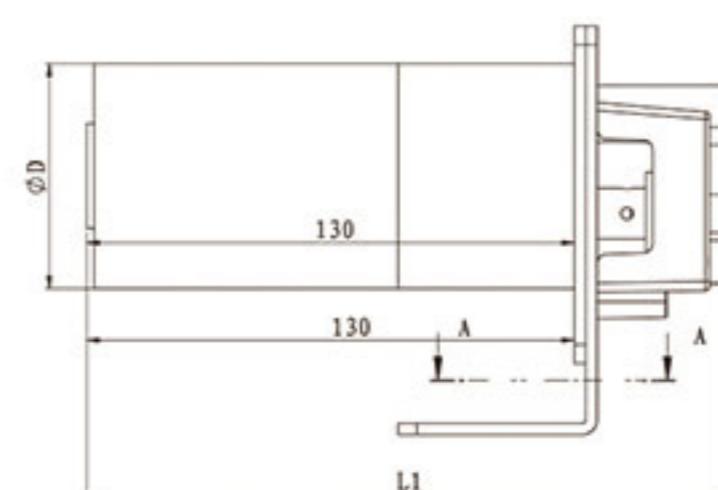
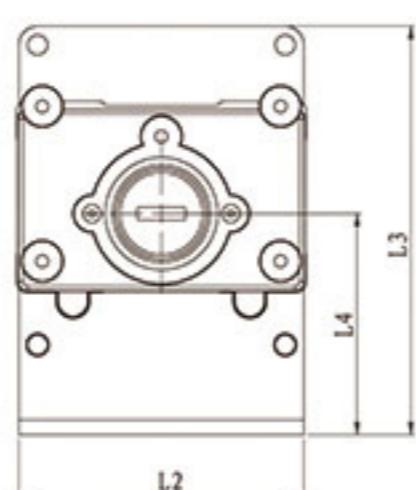


YZ1515x, YZ2515x



SN15, SN25

Outline dimensional drawing



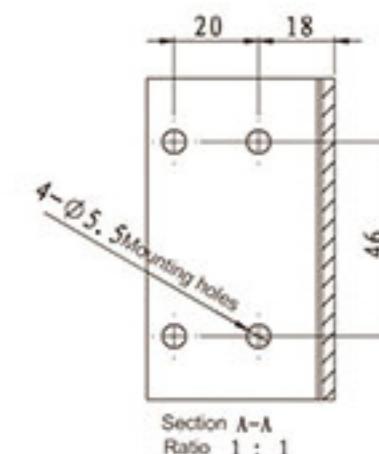
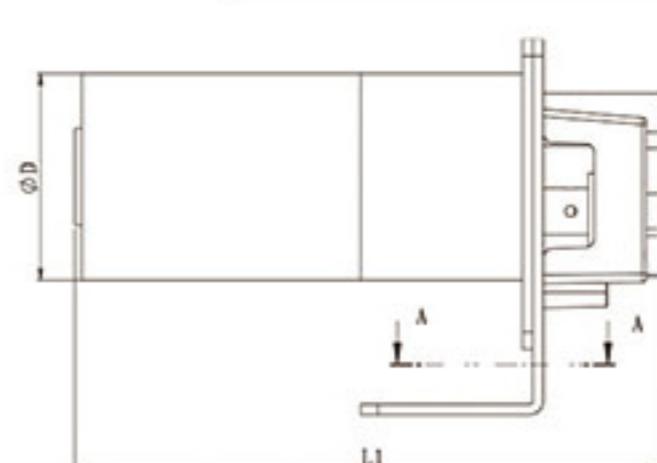
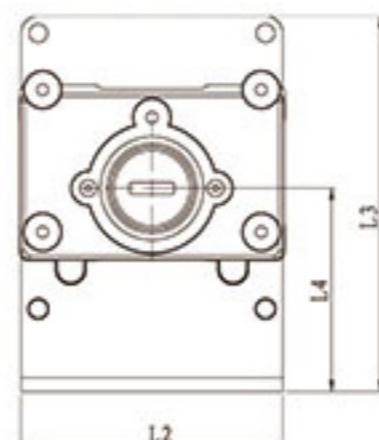
Product Model	Install Method	Speed(rpm)	Speed Error	Suitable Power	Motor Type	Work Environment
OEM-Z101	L shape connection plate	60				
OEM-Z102	L shape connection plate	100				
OEM-Z103	L shape connection plate	166				
OEM-Z104	L shape connection plate	200				
OEM-Z105	L shape connection plate	240		DC 12V/15W		
OEM-Z106	L shape connection plate	333				
OEM-Z107	L shape connection plate	400	±10%			
OEM-Z108	L shape connection plate	500				
OEM-Z109	L shape connection plate	600				
OEM-Z110	—	60			Ø 60 DC geared motor	
OEM-Z111	L shape connection plate	60				
OEM-Z112	L shape connection plate	100				
OEM-Z113	L shape connection plate	166				
OEM-Z114	L shape connection plate	200				
OEM-Z115	L shape connection plate	240		DC 24V/15W		
OEM-Z116	L shape connection plate	333				
OEM-Z117	L shape connection plate	400				
OEM-Z118	L shape connection plate	500				
OEM-Z119	L shape connection plate	600				
OEM-Z201	L shape connection plate	60				0-40°C
OEM-Z202	L shape connection plate	100				
OEM-Z203	L shape connection plate	150				
OEM-Z204	L shape connection plate	200		DC 12V/25W		
OEM-Z205	L shape connection plate	300				
OEM-Z206	L shape connection plate	450				
OEM-Z207	L shape connection plate	500				
OEM-Z208	L shape connection plate	600			Ø 70 DC geared motor	
OEM-Z211	L shape connection plate	60	±10%			
OEM-Z212	L shape connection plate	100				
OEM-Z213	L shape connection plate	150				
OEM-Z214	L shape connection plate	200		DC 24V/25W		
OEM-Z215	L shape connection plate	300				
OEM-Z216	L shape connection plate	450				
OEM-Z217	L shape connection plate	500				
OEM-Z218	L shape connection plate	600				
OEM-Z301	L shape connection plate	600	±10%	DC 24V/30W	Ø 60 DC motor	
OEM-Z401	L shape connection plate	500	±10%	DC 24V/40W	Ø 80 DC motor	

### Tubing & Flow Rate

Pump Head	Tubing	Flow Rate ( mL/min )
YZ1515x	13", 14", 19", 16", 25", 17", 18"	< 2280
YZ2515x	15", 24"	< 1740
MC	ID : 0.13-3.17mm Wall thickness : 0.86-1mm	< 45
SN Series	14", 16", 24"	< 1500

## OEM Product

### OEM-J Series



#### Suitable Pump Head



MC1 ~ MC12



Yz1515x, YZ2515x



SN15, SN25



DZ25-3L



DZ25-6L

### OEM-J

Product Model	Install Method	Speed (rpm)	Speed Error	Suitable Power	Motor Type	Work Environment
OEM-J01	L shape connection plate	60				
OEM-J02	L shape connection plate	100				
OEM-J03	L shape connection plate	166				
OEM-J04	L shape connection plate	200				
OEM-J05	L shape connection plate	300				
OEM-J06	L shape connection plate	417				
OEM-J08	L shape connection plate	60				
OEM-J09	L shape connection plate	100				
OEM-J10	L shape connection plate	166				
OEM-J11	L shape connection plate	200	±10%	AC 220V/10W	Ø 60 AC geared motor	
OEM-J12	L shape connection plate	300				
OEM-J13	L shape connection plate	417				
OEM-J15	L shape connection plate	60				
OEM-J16	L shape connection plate	120				
OEM-J17	L shape connection plate	300	±10%	AC 220V/15W	Ø 70 AC geared motor	0-40°C
OEM-J18	L shape connection plate	500				
OEM-J19	L shape connection plate	60				
OEM-J20	L shape connection plate	120				
OEM-J21	L shape connection plate	300	±10%	AC 220V/25W	Ø 80 AC geared motor	
OEM-J22	L shape connection plate	500				

### OEM-JT

Product Model	Install Method	Speed Range(rpm)	Speed Error	Suitable Power	Motor Type	Work Environment
OEM-JT01	L shape connection plate	0~60				
OEM-JT02	L shape connection plate	0~120				
OEM-JT03	L shape connection plate	0~300	±10%	AC 220V/15W	Ø 70 AC geared motor	
OEM-JT04	L shape connection plate	0~500				
OEM-JT05	L shape connection plate	0~60				
OEM-JT06	L shape connection plate	0~120				
OEM-JT07	L shape connection plate	0~300	±10%	AC 220V/25W	Ø 80 AC geared motor	0-40°C
OEM-JT08	L shape connection plate	0~500				
OEM-JT09	L shape connection plate	0~60				
OEM-JT10	L shape connection plate	0~120				
OEM-JT11	L shape connection plate	0~300	±10%	AC 220V/60W	Ø 90 AC geared motor	
OEM-JT12	L shape connection plate	0~500				

### Tubing & Flow Rate

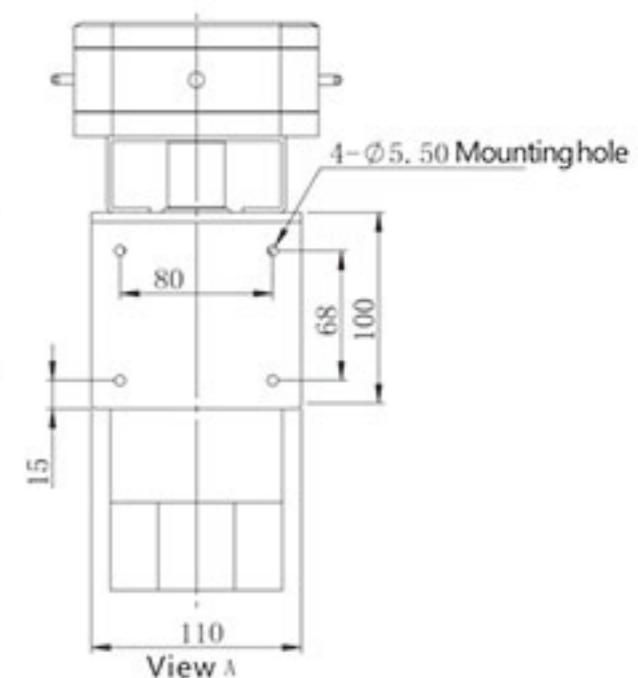
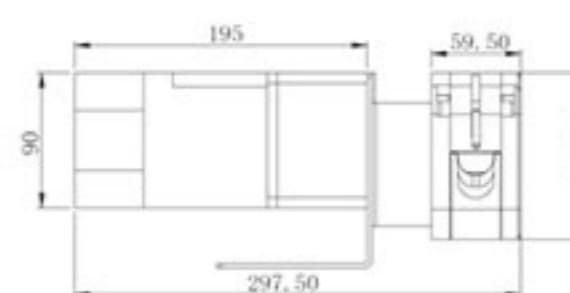
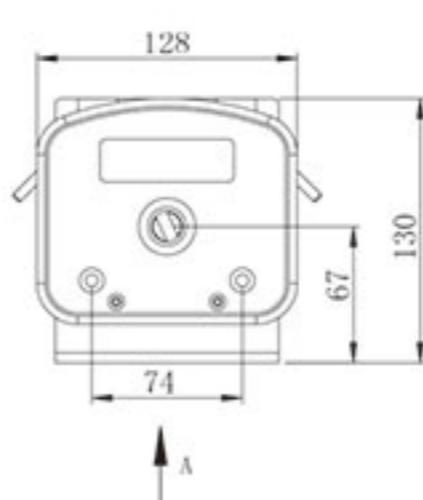
Pump Head	Tubing	Flow Rate ( mL/min )
YZ1515x	13", 14", 19", 16", 25", 17", 18"	< 1900
YZ2515x	15", 24"	< 1450
MC	ID : 0.13-3.17mm Wall thickness : 0.8-1mm	< 45
SN Series	14", 16", 24"	< 1250
DZ25-3L	15", 24", 35", 36"	< 3000
DZ25-6L	15", 24", 35", 36"	< 5000



## OEM Product

### OEM-J Series/OEM-JT Series

Outline dimensional drawing(Unit: mm)



#### Technical Specification

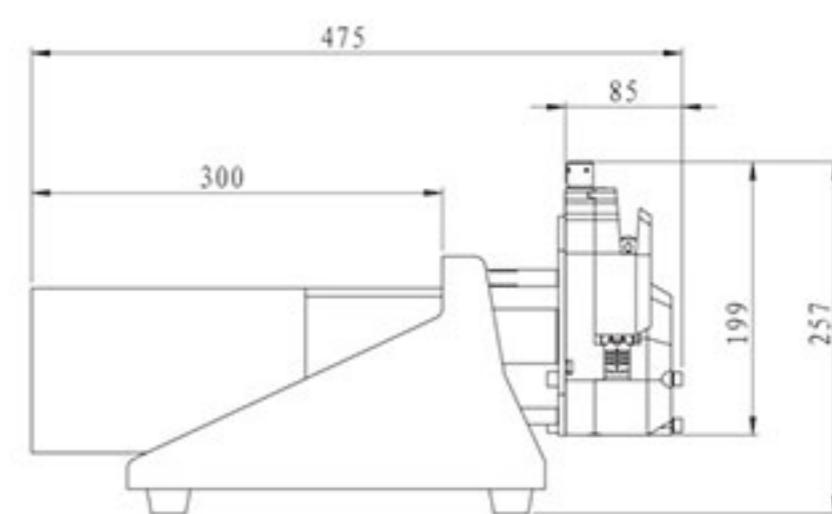
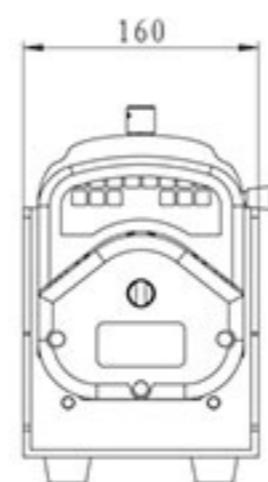
Pump Head	Pump Head Material	Tubing Cartridge Material	Tubing		(Speed 0~600rpm) Flow Rate (mL/min)	Motor Type	Weight (kg)
			Tubing Size	ID x Wall(mm)			
DZ25-6L	Aluminium alloy	PP	15"	4.8×2.4	<1800	AC constant torque asynchronous motor or AC velocity regulation motor	1.86
			24"	6.4×2.4	<3300		
			35"	7.9×2.4	<4800		
			36"	9.6×2.4	<6000		

### OEM-J24 Series

#### Product Introduction

OEM-J24 use AC gear motor drive, YZ35 pump head is very easy to install tubing. Suitable for laboratory sampling, filling, ultrafiltration, big flow rate pumping and cement additives. It can be used separately, also can combine with other equipment.

Outline dimensional drawing(Unit: mm)



#### Typical Application

- | Printing:Transferring ink, carbon dust, dosing..etc.
- | Food & beverage:Transferring batter, fruit juice, additive.

#### Technical Specification

Pump Head	Tubing	ID x Wall(mm)	mL/r	(Speed 0~600rpm) Flow Rate (mL/min)	Tubing Max.Pressure Mpa		Motor Type	Material&Weight Kg	
					Intermittent	Continous		Aluminium alloy	PPS
YZ35	26"	6.4×3.3	6.9	<4200	0.27	0.20	AC constant torque asynchronous motor or AC velocity regulation motor	4.36	1.50
	73"	9.6×3.3	12.3	<7400					
	82"	12.7×3.3	20	<12000	0.14	0.10			



## OEM Product

### Planetary Gear Industrial Pump OEM-J25



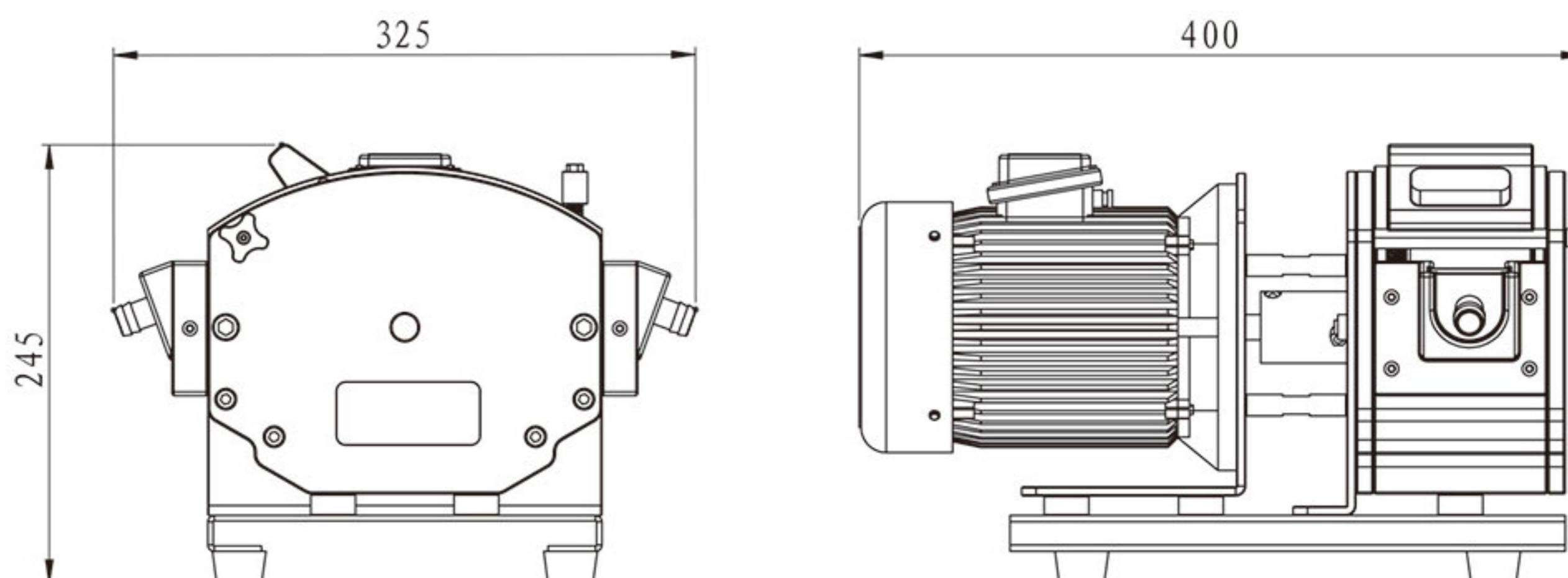
#### Product Introduction

OEM-J25 peristaltic pump head use aluminum alloy shell, 304 stainless steel rollers, long lifetime, corrosion resistance; big flow rate, high pressure, suitable for transfer high viscous and high lift liquid; Driven by AC motor, can use frequency adapter to adjust speed and flow rate, can also connect with PLC, IPC and computers.

#### Typical Application

- | Bio-medical
- | Chemical industry
- | Environmental protection

#### Dimension drawing (Unit: mm)



#### Product Composition and Flow Rate Range

Pump Head	Power Supply	Power	Speed (rpm)	Tubing		Flow Rate (L/min)	Pressure (Mpa)		Weight
				Size	ID*Wall thickness (mm)		Continuous	Intermittent	
DZ45	AC380V/50Hz	370W	30-300	88#	12.7*4.8	2.6-26	0.25	0.3	30kg
				92#	25.4*4.8	3.6-36			



## Peristaltic Pump Tubing

### Silicone Tubing

- Platinum-Cured Silicone Tubing
- Slightly clarity, smooth surface, low protein binding levels, fewer potential leachable .
- Ideal for pharmaceutical and biotechnology use, suitable temperature range -51~238 °C.

Micro Flow Rate Tubing										
Tubing Size	0.13×0.86	0.5×0.86	0.86×0.86	1.52×0.86	2.06×0.86	2.79×0.86	1×1	2×1	3×1	2.4×0.8
Tubing cross sections (1:1)	●	●	●	○	○	○	●	○	○	○
Wall thickness (mm)				0.86				1.0		0.8
Inside diameter (mm)	0.13	0.5	0.86	1.52	2.06	2.79	1.0	2.0	3.0	2.4
Maximum pressure (Mpa)	Continuous				0.1					
	Intermittent				0.1					

Basic Flow Rate Tubing											
Tubing Size	13"	14"	19"	16"	25"	17"	18"	15"	24"	35"	36"
Tubing cross sections (1:1)	●	●	○	○	○	○	○	○	○	○	○
Wall thickness (mm)				1.6					2.4		
Inside diameter (mm)	0.8	1.6	2.4	3.1	4.8	6.4	7.9	4.8	6.4	7.9	9.6
Maximum pressure (Mpa)	Continuous			0.17	0.14	0.1	0.07	0.17		0.14	
	Intermittent			0.27	0.24	0.14	0.1	0.27		0.24	

Industrial Tubing							
Tubing Size	26"	73"	82"	86"	90"	88"	92"
Tubing cross sections (1:1)	○	○	○	○	○	○	○
Wall thickness (mm)		3.3			6.3		4.8
Inside diameter (mm)	6.4	9.6	12.7	9.5	19	12.7	25.4
Maximum pressure (Mpa)	Continuous		0.2		0.25		
	Intermittent		0.27		0.3		

## Peristaltic Pump Tubing

SAINT-GOBAIN Tubing: Tygon, PharMed BPT, Norprene etc

	<b>A</b> Tygon3350 	<b>B</b> Tygon R-3603 	<b>C</b> Norprene Chemical 	<b>D</b> PharMed 	<b>E</b> Norprene A-60-F 
Formulation	Tygon3350	Tygon R-3603	Norprene Chemical	PharMed	Norprene A-60-F
Application	Pharmaceutical, cosmetic, medical and auto-analysis application.	General laboratory, food & beverage, biopharmaceutical, analytical instruments.	Excellent for chemical processing and general industrial applications. Food and beverage applications where extractables are a concern.	Cell and tissue culture work and pharmaceutical uses. Also good for light-sensitive samples.	Ideal for the food, dairy and beverage.
Advantages	Ultra-smooth; minimizes bacterial growth. Good for mild to medium concentration bases, salts and alcohols; odorless, tasteless, and nontoxic. Transparent.	Inexpensive tubing for general lab application. Nonaging, nonoxidizing. Clear for easy flow monitoring. Handles virtually all inorganic chemicals. Low gas permeability. Smooth bore; good for viscous fluids. High dielectric constant.	Norprene thermoplastic elastomer outer jacket with chemically inert Tygon® 2075 inner bore for excellent chemical resistance. Plasticizer-free to guard against extractables. Long flex life. Opaque beige.	Great for tissue and cell work-nontoxic and nonhemolytic; long service life minimizes risk of fluid exposure; reduces tubing costs and pump downtime. Opaque to UV and visible light to protect light-sensitive fluids. Heat sealable, bondable, and formable. Extremely low gas permeability.	Heat, ozone, and UV light resistant. Nonaging; nonoxidizing; superior acid and alkali resistance. Opaque beige.
Application Suitability	_____	ACIDS GOOD ALKALIES GOOD ORGANIC SOLVENTS NO PRESSURE GOOD VACUUM GOOD VISCOUS FLUIDS EXCELLENT STERILE FLUIDS GOOD	_____	ACIDS GOOD ALKALIES GOOD ORGANIC SOLVENTS NO PRESSURE GOOD VACUUM EXCELLENT VISCOUS FLUIDS GOOD STERILE FLUIDS EXCELLENT	_____
Physical characteristics	_____	Thermoplastic. PVC-based material with plasticizer. Firm (stiff) material. Transparent, clear.	_____	Thermoplastic elastomer. Polypropylene-based material with USP mineral oil. Excellent tensile strength. Firm( stiff) material. Opaque, beige.	_____
Temp. range	-75 to 450°F (-60~232°C)	-58 to 165°F (-50~74°C)	-76 to 165°F (-60~74°C)	-60 to 270°F (-59~135°C)	-60 to 275°F (-51~135°C)
Meets classifications	FDA 21 CFR 177.2600 USP Class VI EP 3.1.9. Exceeds 3A standards Manufactured according to GMP.	FDA 21 CFR 175.300	None.	None.	FDA 21 CFR 177.2600 NSF listed ( Standard 51) Manufactured according to GMP.
Cleaning/ Sterilization	Ethylene oxide gamma irradiation, or autoclave for 30 min, 15psi (1 bar).	Unaffected by commercial sanitizers (with recommended procedures) Sterilize with ethylene oxide (ETO) or autoclave. To autoclave: Coil loosely in nonlinting cloth or paper, autoclave at 121°C (250°F). 1KG/cm³ (15psi) for 30 minutes (tubing will appear milky); air dry at max 66°C (150°F) for 2 to 2 ½ hours until clear.	Sterilize with ethylene-oxide(ETO), autoclave or gamma irradiation up to 2.5Mrad. Repeated autoclaving will not affect overall life.	Autoclave, ethylene oxide, or gamma irradiation.	Autoclave.



## Peristaltic Pump Tubing

	F Norprene A-60-G	G Tygon F-4040-A	H Tygon LFL	I TYGON 2475	K Viton
Formulation	Norprene A-60-G	Tygon F-4040-A	Tygon LFL	TYGON 2475	Viton
Application	For applications requiring excellent chemical, heat, ozone, and ultra-violet (UV) light resistance.	Fuels and industrial lubricants-gasoline, kerosene, heating oils, cutting compounds, and glycol-based coolants. Resists most hydrocarbons.	General laboratory use, provides longer life with peristaltic tubing pumps.	Sensitive fluid transfer applications requiring high purity.	Acid and solvent transfer, high-temperature.
Advantages	Best choice for vacuum/pressure applications. Offers longest life with good flow consistency. Heat and ambient ozone resistant. Good resistance to acids/alkalies. Black color hides dirt and dust. Heat sealable, nonaging, and nonoxidizing. High dielectric constant.	Resists embrittlement and swelling, ozone-and UV-resistant, with low-extractability. Translucent yellow.	Longest life of all Tygon® peristaltic tubing (1000hrs). Nonaging, nonoxidizing. Clear for easy flow monitoring. Broad chemical resistance; low gas permeability. Smooth bore. Good for viscous fluids. High dielectric constant.	Plasticizer free, smooth inner surface (inhibits particulate buildup and bacterial growth), safely disposed of through incineration and nontoxic. Transparent.	The most chemical resistant tubing. Registand to corrosives, solvents, and oils at elevated temperatures. Low gas permeability.
Application Suitability	ACIDS GOOD ALKALIES GOOD ORGANIC SOLVENTS NO PRESSURE EXCELLENT VACUUM EXCELLENT VISCOUS FLUIDS EXCELLENT STERILE FLUIDS NO	_____	ACIDS GOOD ALKALIES GOOD ORGANIC SOLVENTS NO PRESSURE GOOD VACUUM GOOD VISCOUS FLUIDS EXCELLENT STERILE FLUIDS POOR	_____	ACIDS EXCELLENT ALKALIES EXCELLENT ORGANIC SOLVENTS EXCELLENT PRESSURE GOOD VACUUM GOOD VISCOUS FLUIDS GOOD STERILE FLUIDS FAIR
Physical characteristics	Thermoplastic elastomer. Polypropylene-based material with USP mineral oil. Excellent tensile strength. Firm (stiff) material. Opaque, black. Manufactured according to GMP.	_____	Thermoplastic. PVC-based material with plasticizer. Firm (stiff) material. Transparent, clear.	_____	Thermal set rubber. Viton B (67% fluorine) Firm (stiff) material Opaque, black. Manufactured according to GMP.
Temp. range	-60 to 270°F (-59~135°C)	-35 to 165°F (-37~74°C)	-58 to 165°F (-50~74°C)	-94 to 125°F (-70~52°C)	-25 to 400°F (-32~205°C)
Meets classifications	None.	Meets NSF-51 and 3A sanitary standards.	USP Class VI, FDA 21 CFR 175.300	FDA 21 CFR 177.1520, USP 23 Class VI, Manufactured according to GMP.	None.
Cleaning/ Sterilization	Sterilize by autoclave only.	Not recommended.	Sterilize by ETO/autoclave. Coil loosely in nonlinting cloth or paper; autoclave at 250°F(121°C), 15 psi (1kg/cm <sup>2</sup> ), 30 minutes (tubing will appear milky); air dry at max 150°F (66°C) for 2 to 2 ½ hrs until clear.	Ethylene oxide or gamma irradiation.	Sterilization is not recommended.

## Peristaltic Pump Accessories

### A Filling nozzle



When transferring or dispensing liquid reduce splashing and dropping off maximumly, most out of the splash reduction.

Dimensional tolerance  $\pm 0.05\%$ , assure reproducibility.

Name	Material	Tube
Filling nozzle	304 stainless steel	13#/14#, 19#, 16#, 25#/15#, 17#/24#

### B Filling Countersunk



Used for the output of tube, preventing the tube floating or absorbing the wall of container.

Name	Material	Tube
Counter sunk	304/316 stainless steel	13#, 14#, 19#, 16#, 25#, 17#, 18#, 15#, 24#, 35#, 36#, 26#, 73#, 82#

### C Foot pedal switch



Used for the drive without in hand, all pumps with 1.8m power line.

### D Optical fiber sensors



Optical fiber sensors with the feature of anti-electromagnetic interference and atomic radiation interference, mechanical property with thin diameter, soft, light weight; electric property with insulation, noninductivity; chemical properties with water resistance, corrosion resistance, high temperature resistance, can be connected with filling system, as input signal of missing bottles.

### E Benchtop tubing cutter

Stainless steel blade, makes right-angle cuts in several sizes of plastic tubing.



### E Hall sensor



When applied in the dispensing line, it can detect whether there is filling bottle in the production line. When the bottle approach the sensor side, the switch action will be made without any mechanical contact or pressure, thereby providing filling control order to the pump. In the same way, when no filling bottle is detected, the stop filling control order is provided to the pump.

### F HMI

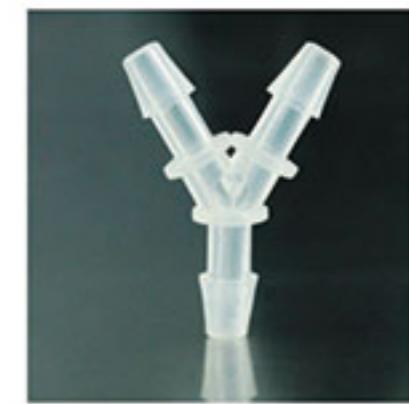


HMI true color touch screen. Our company supply standard MODBUS communication protocol, can connect with various HMI products perfectly. It has mature system for supporting industrial equipment, handle well, strong logical function, widely used for various industrial control occasion.

### H Tube connector



a Straight tube connector



b "Y" tube connector



c Tee tube connector

Tube
2.5×1; 3×1; 16#

Tube
2×1; 19#

Diameter				Tube
inch	mm	inch	mm	inch
1/16"	1.6	13"	14"	13" 14"
1/8"	3.2	16"		16"
3/16"	4.8	15"	25"	15" 25"
1/4"	6.4	17"	24"	17" 24"
3/8"	9.6	18"	35" 36"	18" 35" 36"
			73" 86"	73" 86"
1/2"	12.7	82"	88"	82" 88"
			90"	90"
			92"	92"



d Reducer tube connector

Diameter		Tube			
inch	mm	inch	mm	inch	mm
1/16"	1.6	1/8"	3.2	13"	14"
1/8"	3.2	3/16"	4.8	16"	15" 25"
3/16"	4.8	1/4"	6.4	25"	17" 24"
1/4"	6.4	3/8"	9.6	17" 24"	18" 35" 36"
3/8"	9.6	1/2"	12.7	18" 35" 36"	73" 86"
					82" 88"
1/2"	12.7	3/4"	19	82"	88"
					90"
1/2"	12.7	1"	25.4	82"	88"
					92"

### I Support stand



## Gear Pump

LabGV, LabGF, LabGN, LabGM



### Features

- | With ABS engineering plastic housing, streamlined body design.
- | Brushless DC motor with high efficiency and maintenance free features.
- | The pump head is compact type, stainless steel material, driven by magnetic, low noise, no pulsation.
- | Suitable for transferring viscous, high temperature and high pressure liquid.

### Model Number

- | LabGN, LabGV, LabGF, LabGM

### Typical Application

- | Mainly for laboratory.

### Technical Specifications

Speed range	100-3000 rpm	Communication interface	RS232, RS485 support MODBUS protocol(RTU mode)
Testing time range	0.1s-9999h	Power supply	AC 220V±10% 50Hz/60Hz(standard) AC 110V±10% 50Hz/60Hz(optional)
Outlet pressure	≤0.5Mpa	Drive dimension	261.4×157.3×236.9mm
Motor type	DC brushless motor	Drive weight	4.40kg
Can transfer liquid which include granules	Granule ID ≤ 20μm	Power consumption	<100W
Can transfer viscous liquid	Viscosity≤200cSt	Condition temperature	0-40°C
Externalspeed control signal	0-5V,0-10V,4-20mA for option	Relative humidity	<80%
Start/stop	Passive switch signal, such as foot pedal Activeswitchsignal: 5V,12V,24Vfor option	IP rate	IP31

Drive	Model	Display	Operating mode	Function	Motor Status Output Interface
LabGV	Intelligent flow rate type	4.3"-industrial-true color LCD Screen	Touch screen + Mechanical keypad	Flowrate/motor speed display, Fixed time and volume, Fixed volume measurement, Timer start and stop functions.	open-collector output
LabGF	Intelligent dispensing type	4.3"-industrial-true color LCD Screen	Touch screen + Mechanical keypad	Input dispensing volume,dispensing time, copy numbers,for accuracy filling	open-collector output
LabGN	Standard type	3.2"LCD Screen	Mechanical keypad	Motor speed and setting datas display in the same screen, used for common transferring, support simple dispensing(0.1s-9999h )	open-collector output
LabGM	Basic type	4 digital LED	Mechanical keypad	Display motor speed, used for common transferring, support for simple dispensing (0.5s-999s)	No

Drive	Pump Head	Gear Material	Flow Rate mL/min	Output Rated Pressure(Mpa)	Fluid Temperature
LabGV	MG204XD0PT0000	PEEK	27.7~830	0.5	-30~100(°C)
	MG204XD0TT0000	PTFE	27.7~830		-30~50(°C)
	MG209XD0PT0000	PEEK	56.67~1700		-30~100(°C)
	MG209XD0TT0000	PTFE	56.67~1700		-30~50(°C)
	MG213XD0PT0000	PEEK	80~2400		-30~100(°C)
	MG213XD0TT0000	PTFE	80~2400		-30~50(°C)

## Syringe Pump



SPLab02-Dual channel



SPLab10-10 channels

### Model Number

- | SPLab01(1 channel)
- | SPLab02(2 channels)
- | SPLab04(4 channels)
- | SPLab06(6 channels)
- | SPLab08(8 channels)
- | SPLab10(10 channels)
- | SPLab12(12 channels)



SPLab02-LU

### Features

The syringe pump with infusion/withdrawal mode, stainless steel body, and large-screen chromatic LCD is easy to operate. It can install and fix different types of injectors or syringes in the same time, and it is suitable for transferring micro flow rates with high precision (non-medical).

### Technical Specifications

Working mode(6 kinds)	Infusion, withdrawal, infusion/withdrawal, withdrawal/infusion, continuous, additional mode (infusion/withdrawal, then exclude bubble).						
Channel number	1	2	4	6	8	10	12
Syringe size	10µL-100mL			10µL-10mL			
Flow rate	0.001µL/min-127mL/min			0.001µL/min-21.997mL/min			
Infusion volume per microstep	0.078µm						
Min. linear rate	5µm/min						
Max. linear rate	132mm/min						
Min. step rate	0.035ms/Mirco step						
Max. step rate	0.937sec/Mirco step						
Max.linear force	10kgf						
Advance per microstep	0.078µm						
Accuracy	≤±0.5%						
Operating mode	Rotary encoded switch and membrane keypad						
Display mode	320×240TFT-LCD						
Power-off memory	Display the previous data parameter after power supply again						
Power supply	AC 220V±10%(standard),AC 110V±10%(optional)						
Operating condition	Temperature 0-40°C, Relative humidity <80%						

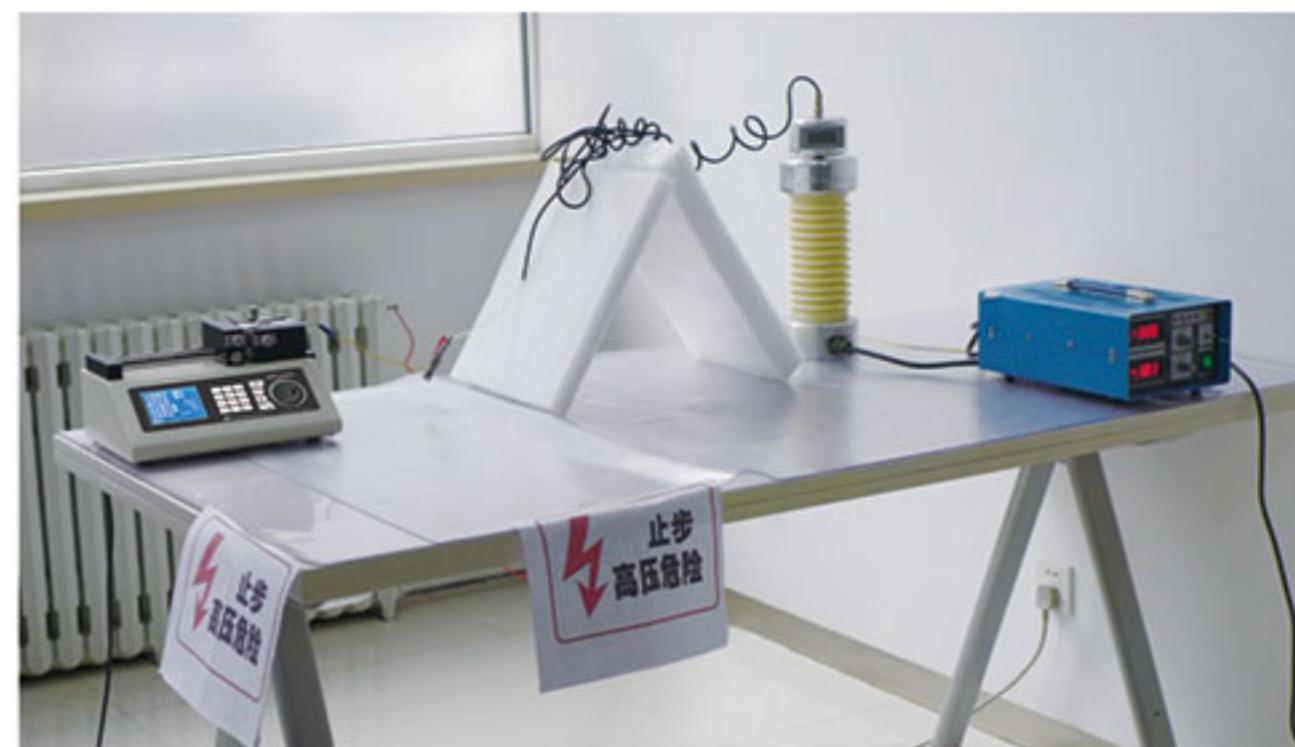


## Syringe Pump

SPLab01-E



32.4 KV High Voltage Test



### Typical Application

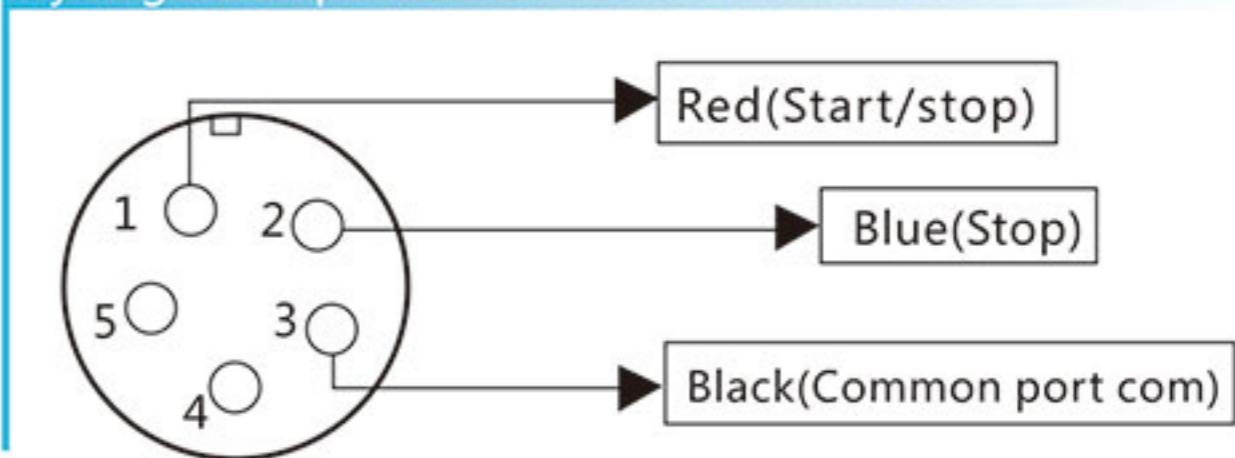
| Special for high voltage electrostatic spinning

Syringe	Inside Diameter(mm)	Flow Rate(μL/min-mL/min)	
		SPLab01/SPLab02	SPLab03-SPLab10
50μL	1.03	0.004~0.110	0.004~0.110
1mL	4.61	0.083~2.203	0.083~2.203
2.5mL	7.28	0.208~5.492	0.208~5.492
5 mL	10.30	0.417~10.993	0.417~10.993
10 mL	14.57	0.834~21.997	0.834~21.997
25 mL	23.03	2.083~54.958	—
50 mL	32.57	4.166~109.921	—
60 mL	32.57	4.166~108.310	—

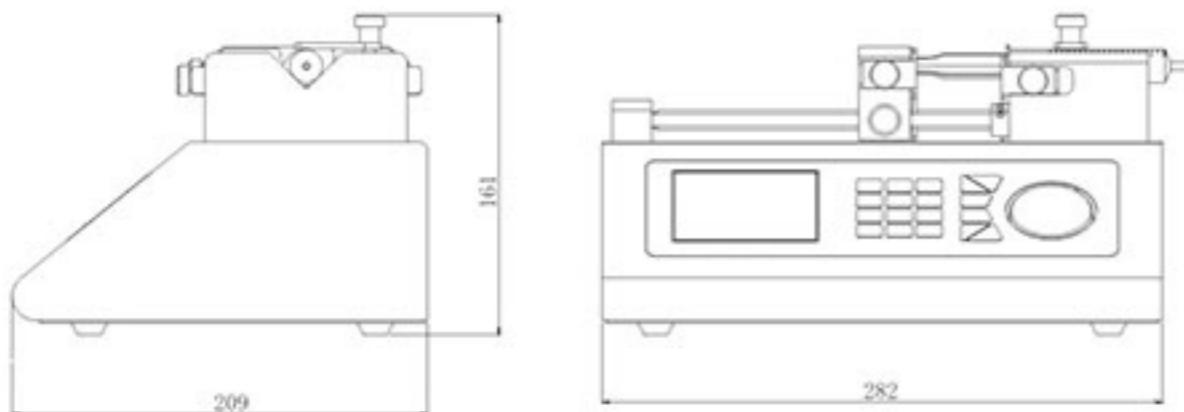
### Installation Sizes Drawing (Unit: mm)

Channel No.	4	6	8	10	12
L	145	190	235	280	325

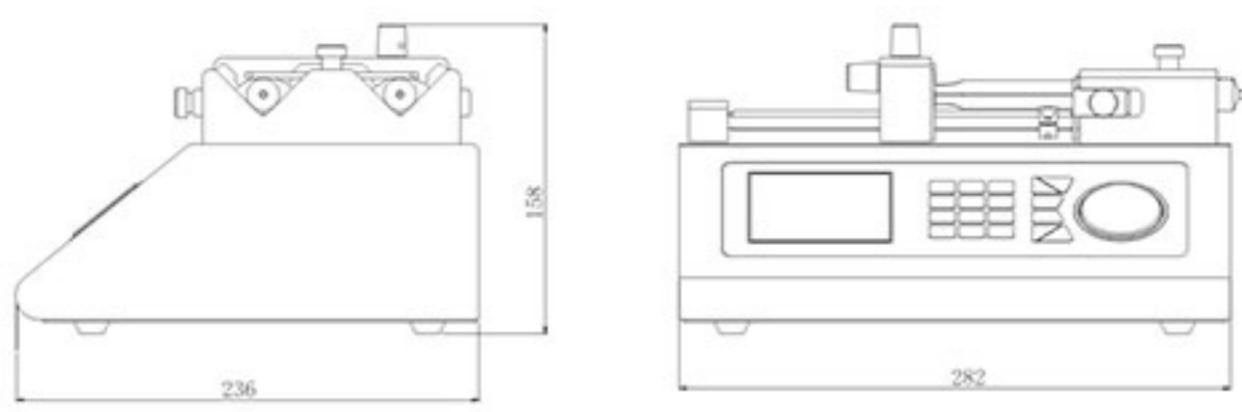
Syringe Pump External Control Schematic



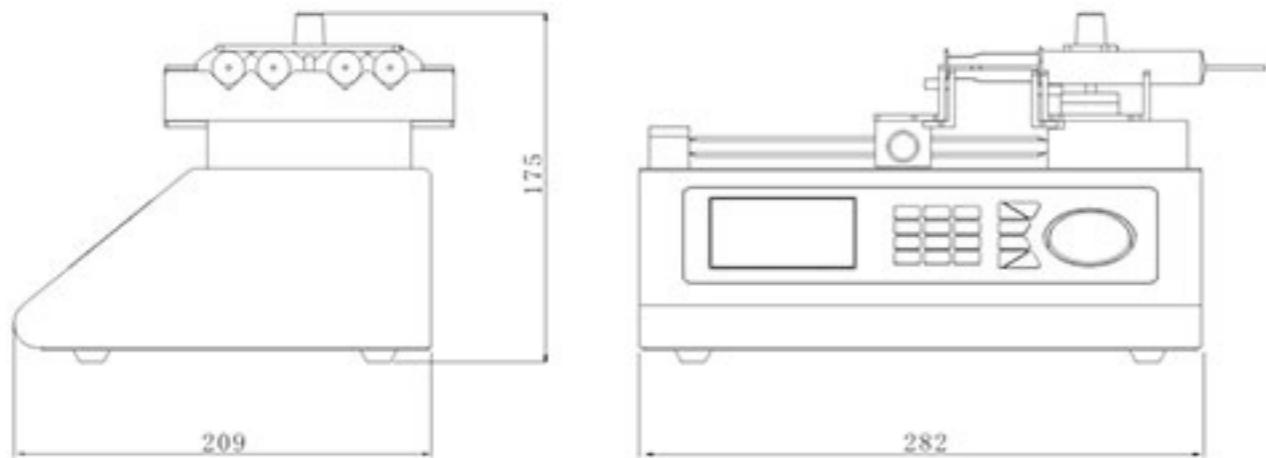
SPLab01



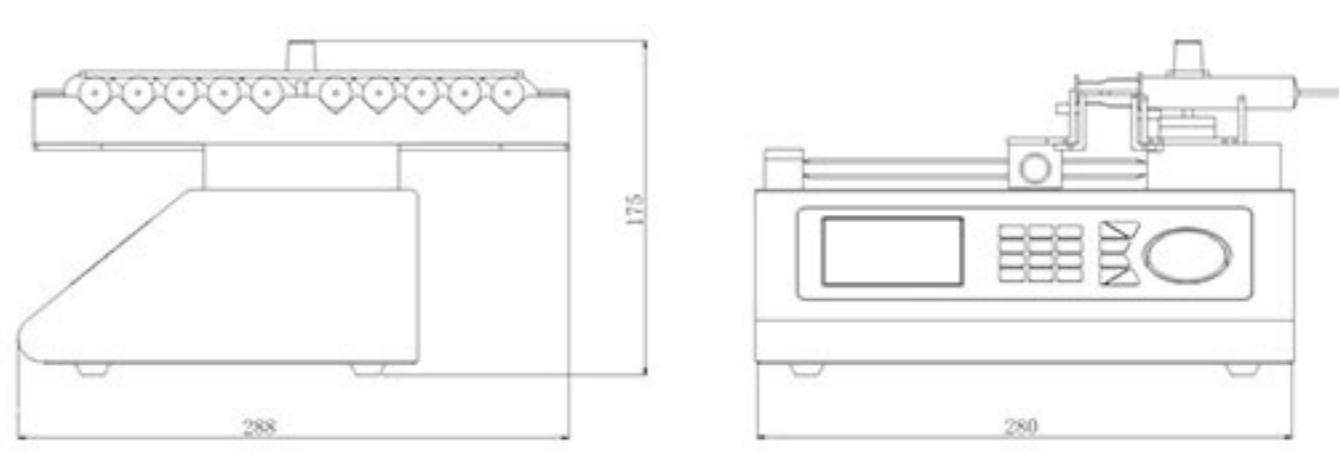
SPLab02



SPLab04



SPLab10

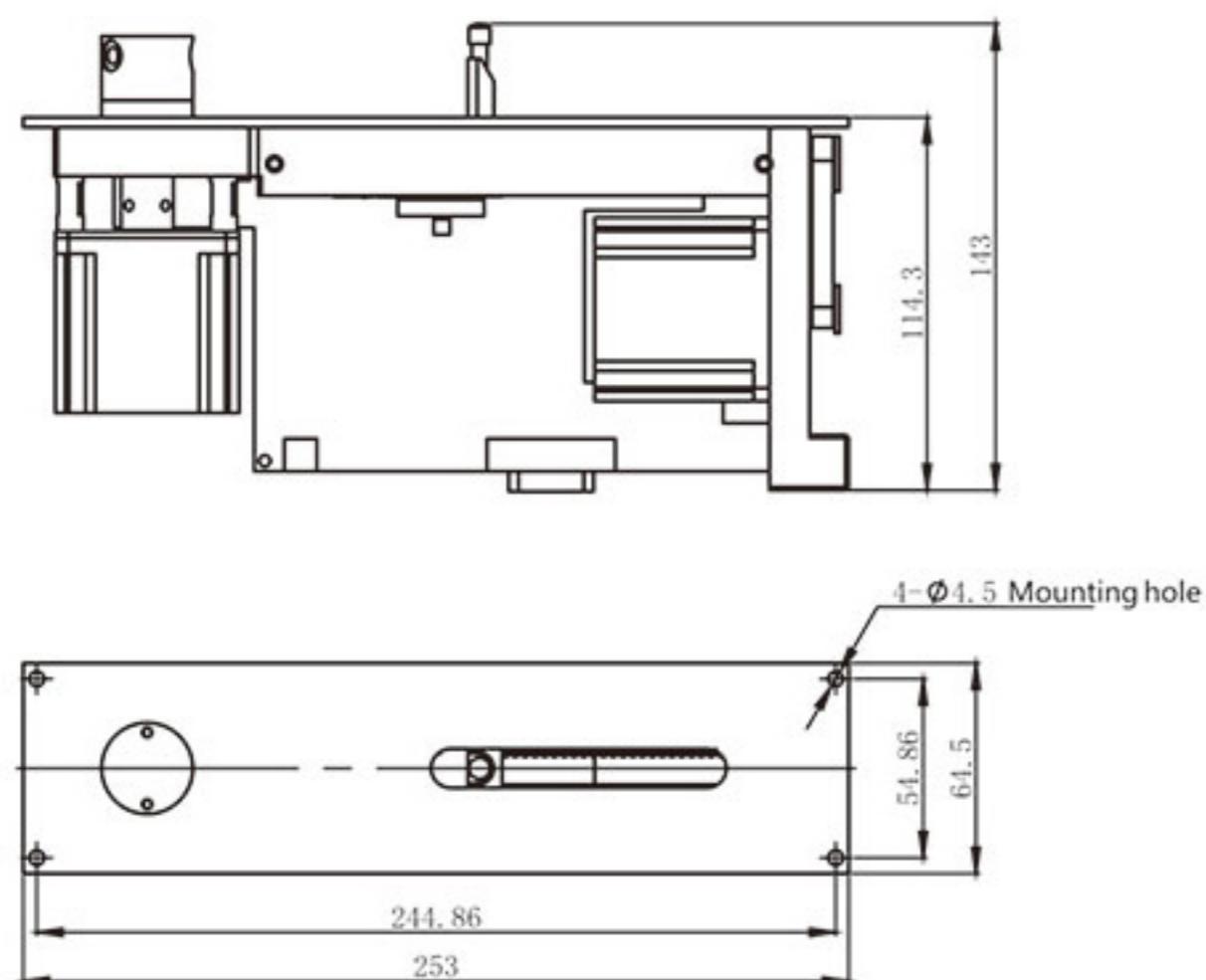


## Industrial Syringe Pump

**SP60-1A**



### Installation Sizes Drawing (Unit: mm)



### Product Introduction

The SP60-1A Pump is a fully programmable, open frame, precision liquid handling pump module, designed for applications in the 5  $\mu$ L to 25 mL range. It is controlled by an external computer or microprocessor and automates pipetting, diluting, and dispensing functions.

### Model Number

| SP60-1A

### Features

Unmatched application flexibility:  
Fully programmable;  
Can be controlled by an external computer or microprocessor;  
Available with a range of syringe sizes and valve configurations.

Faster product development:  
Can speed up and simplify validation of your instruments;  
Robust performance: optical encoder for step loss detection;  
full control of start speed, top speed and cut-off speeds;  
Programmable ramp-up and ramp-down rates;  
Planned maintenance replacement of valves and syringes.

Straight forward integration:  
RS-232/RS-485 communication interfaces;  
Up to fifteen SP60-1A pumps can be connected together;  
Two digital inputs and three outputs for TTL level signals;  
Used for synchronization with external devices.

### Technical Specifications

Precision	Repetition error $\leq 0.05\% CV$ at full stroke (500 $\mu$ L syringe and above), (DI water at room temperature)	Valve switch time	$\leq 250$ ms between adjacent ports
Accuracy	Error $\leq 0.5\%$ at full stroke (DI water at room temperature)	Valves type	3-port 120°(Standard)
Plunger drive	Stepper motor driven lead screw with optical encoder for step loss detection and home flag	Tubing fittings	$\frac{1}{4}$ - 28" or M6
Plunger travel	60 mm(6000 steps or 48000 steps)	Syringe fittings	$\frac{1}{4}$ - 28"
Plunger speed	0.00625mm/s--50mm/s	Power requirements	24 VDC $\pm 10\%$ /2.0 A (peak)
Run time per stroke	1.2 seconds-160 minutes	Communication interface	RS-232, RS-485
Speed resolution	0.01mm or 0.00125mm	Baud rate	9600 or 38400 (RS-232 and RS-485)
Syringes	Sizes 50 $\mu$ L, 100 $\mu$ L, 250 $\mu$ L, 500 $\mu$ L, 1.0 ml, 2.5 ml, 5.0 ml, 10 ml, 25 ml	Addressing	Up to 15 individual addresses available (DIP switch)
Barrel material	Borosilicate glass	Input	Two inputs with 4.7k pull-ups, 5V HCMOS.
Plunger rod material	Stainless steel	Output	For restart the paused instruct Three outputs, 5V HCMOS,For synchronous external devices
Plunger seal material	PTFE or UHMWPE (most sizes)	Operating temperature	15°C--40°C
		Operating humidity	20-80 % RH at 40°C
		Storage temperature	-20°C--65°C



