

## Flow Rates Peristaltic Pump

## Suitable Pump Head

LabN1, LabN3, LabN6

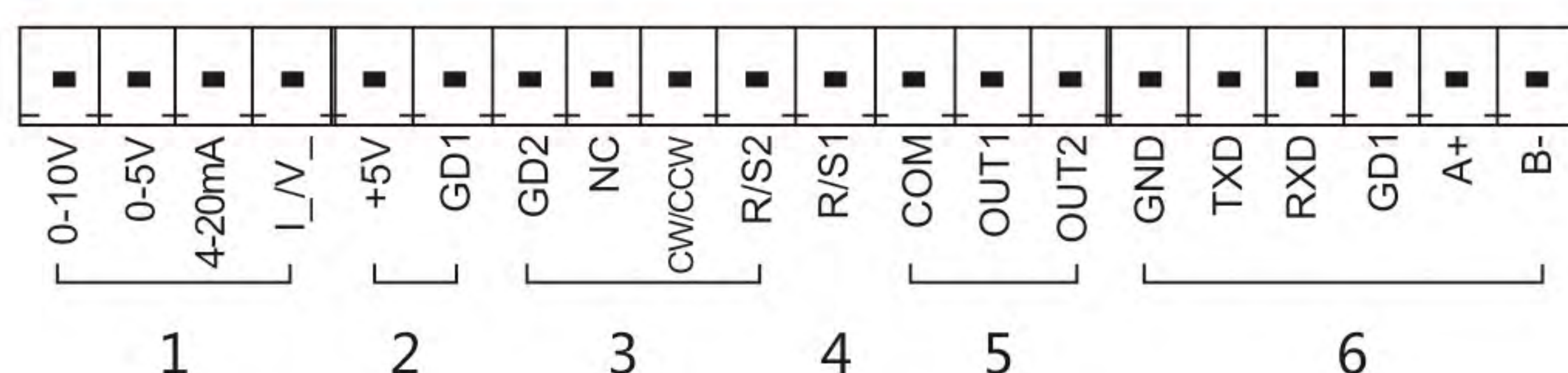
3 years warranty



### Model Number

| LabN1, LabN3, LabN6

### LabN Series External Control Schematic Diagram



YZ1515x



YZ2515x



MC Series



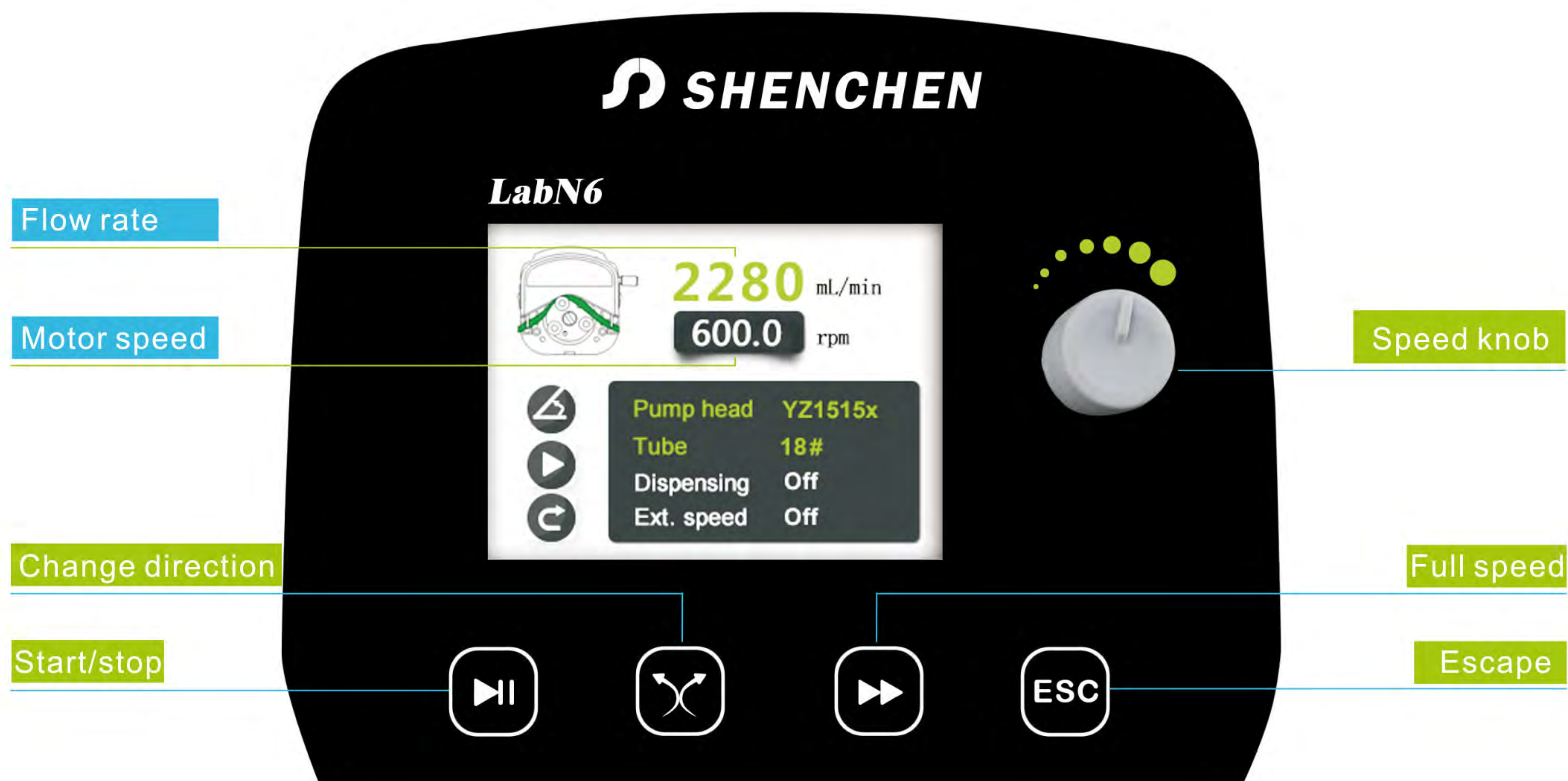
DG Series

### Features

- | 3.2" color LCD screen display.
- | Flow rate and motor speed display in same screen.
- | Timing function, time range 0.1s-9999 hours, 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



Flow rate

Motor speed

Change direction

Start/stop

Speed knob

Full speed

Escape

LabN Series Interface and Keypad



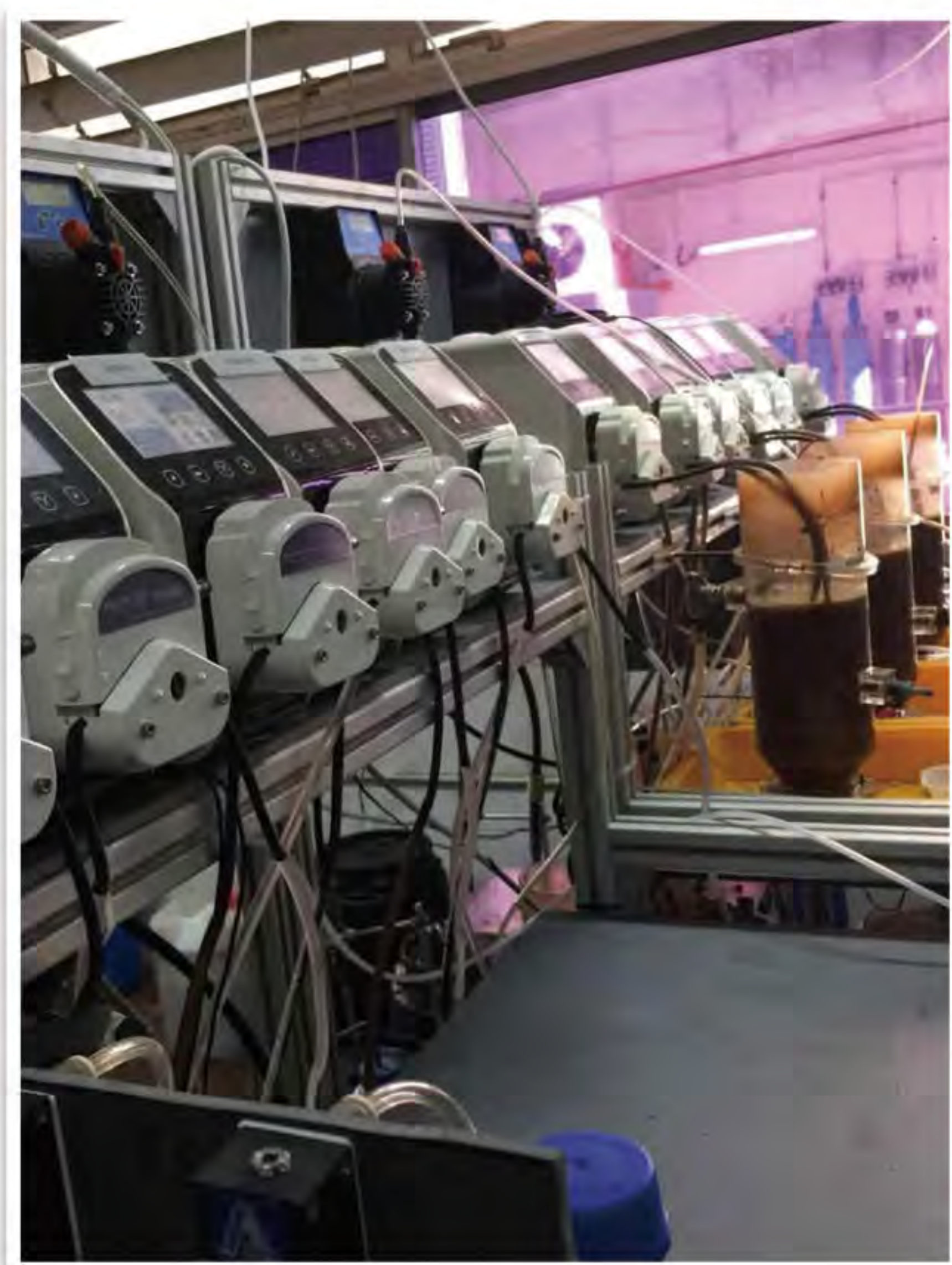
### Technical Specifications

Flow rate range	LabN1: 0.000166~570 mL/min	Start/stop, reversing signal	Passive switch signal, such as foot pedal
	LabN3: 0.000166~1330 mL/min		Active switch signal: 5V,12V,24V for option
	LabN6: 0.000166~2280 mL/min		
Speed resolution	0.1rpm	Communication interface	RS232, RS485 support Modbus protocol(RTU mode)
Back suction angle	0-360°	Output interface	Output motor working status (Open-Collector output)
Testing time range	0.1 s-9999 h		
Outlet pressure	0.8~1.0 mm wall thickness tubing: 0.1Mpa;	Power supply	AC 220V±10% 50Hz/60Hz (standard) AC 110V±10% 50Hz/60Hz (optional)
	1.6~2.4mm wall thickness tubing: 0.1~0.27Mpa		
Display	3.2" high definition LCD screen	Drive dimension	261.4×157.3×236.9mm
Control method	Knob speed and Mechanical keypad	Drive weight	4.40 kg
<b>Keypad lifetime</b>	<b>300,000 times</b>	Power consumption	< 50W
External speed control signal	0-5V, 0-10V, 4-20mA for option	Condition temperature	0-40°C
Relative humidity	< 80%	IP rate	IP31

### 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: 0.8-1mm	
				0.000166-49(suggestion working speed≤150rpm)	0.000185-65(suggestion working speed≤150rpm)
LabN1	0.1-150rpm	0.007~570	0.17~435		
LabN3	0.1-350rpm	0.007~1330	0.17~1015		
LabN6	0.1-600rpm	0.007~2280	0.17~1740		

## Application



## Easy Load Pump Head

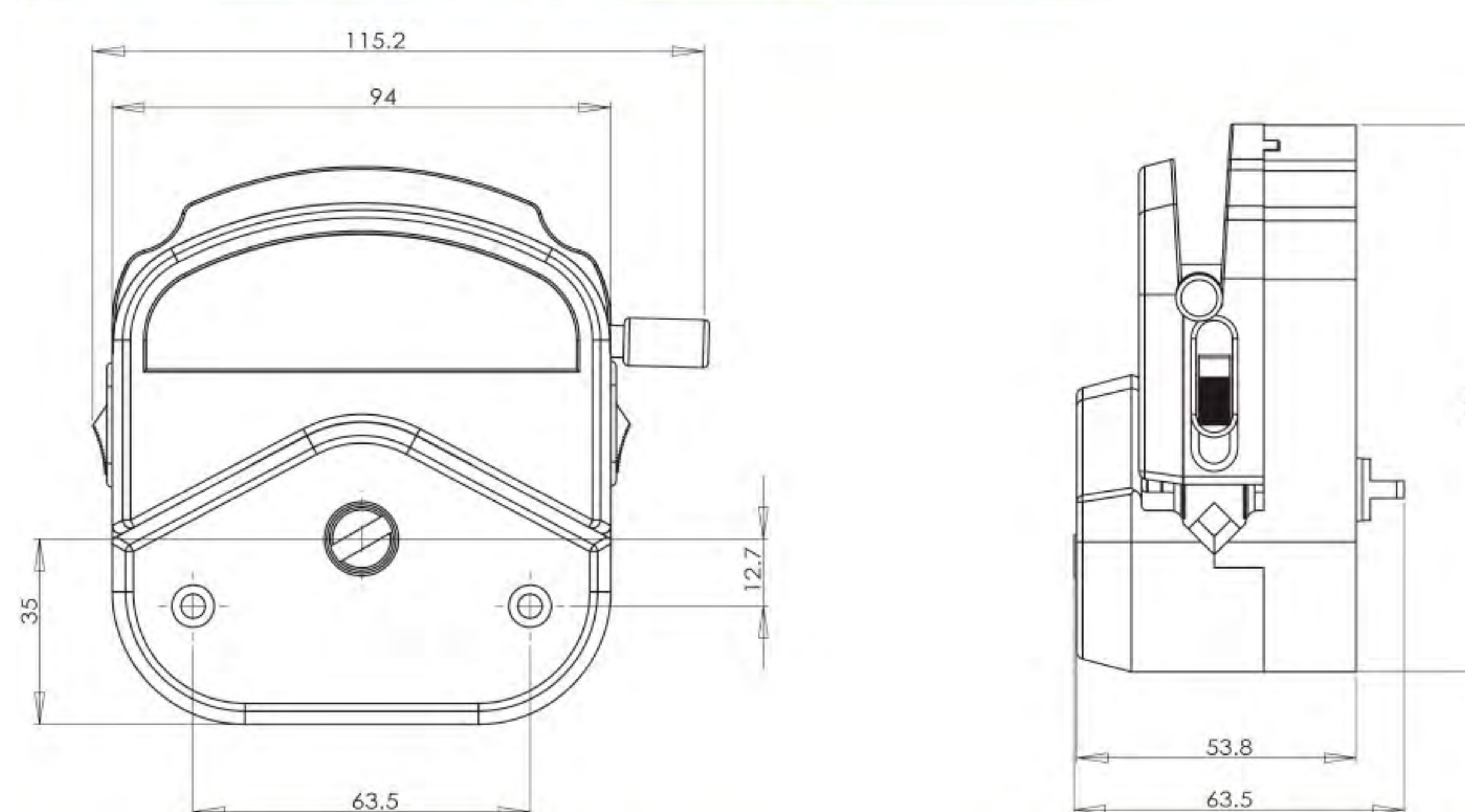
### YZ1515x, YZ2515x



### 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.

### Dimension 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.

Model Number | YZ1515x, YZ2515x

### Typical Application

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



3 rollers

6 rollers

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	0.24	0.14	0.44 (6 rollers)	0.50 (6 rollers)
	25#	4.8×1.6	1.7	0.17~1020	0.14	0.10		
	17#	6.4×1.6	2.9	0.29~1740	0.10	0.07		
YZ2515x	15#	4.8×2.4	1.7	0.17~1020	0.27	0.17	0.40 (3 rollers)	0.46 (3 rollers)
	24#	6.4×2.4	2.9	0.29~1740				



## Multichannel Pump Head-MC Series

POM Material & PVDF Material



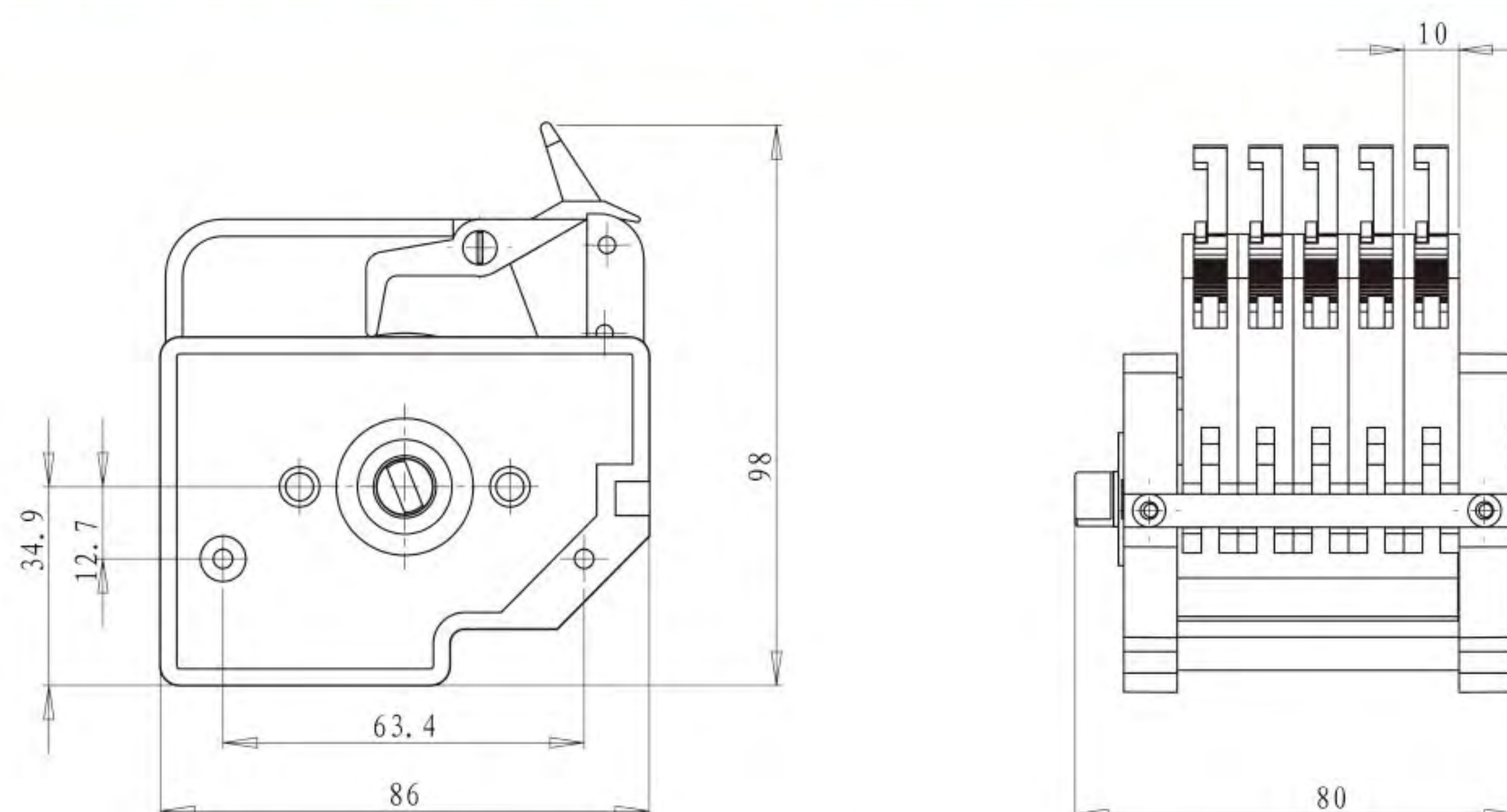
### Typical Application

- | 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.

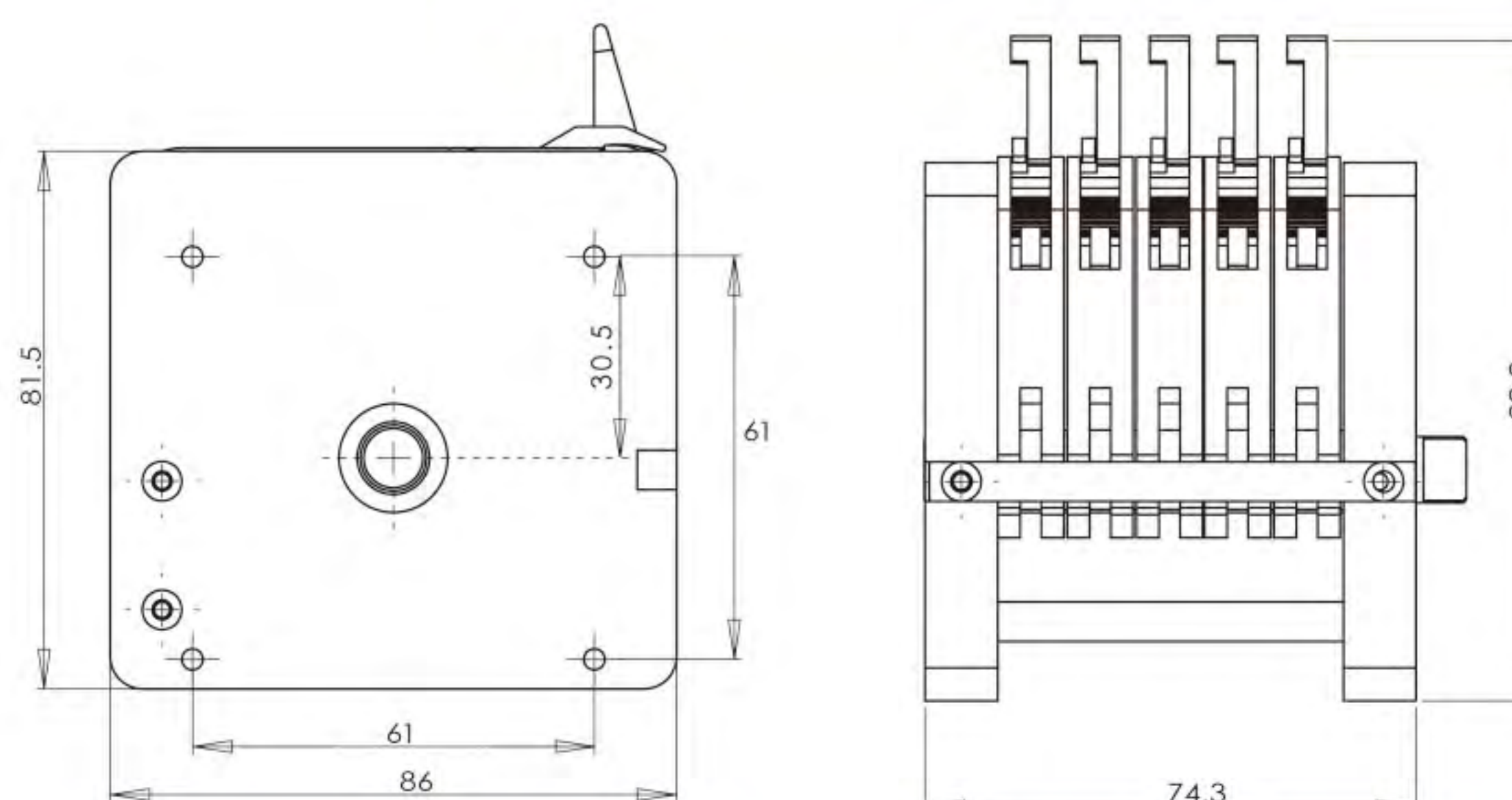
### Dimension Drawing (Unit: mm)



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



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### MC Pump Head VS DG Pump Head



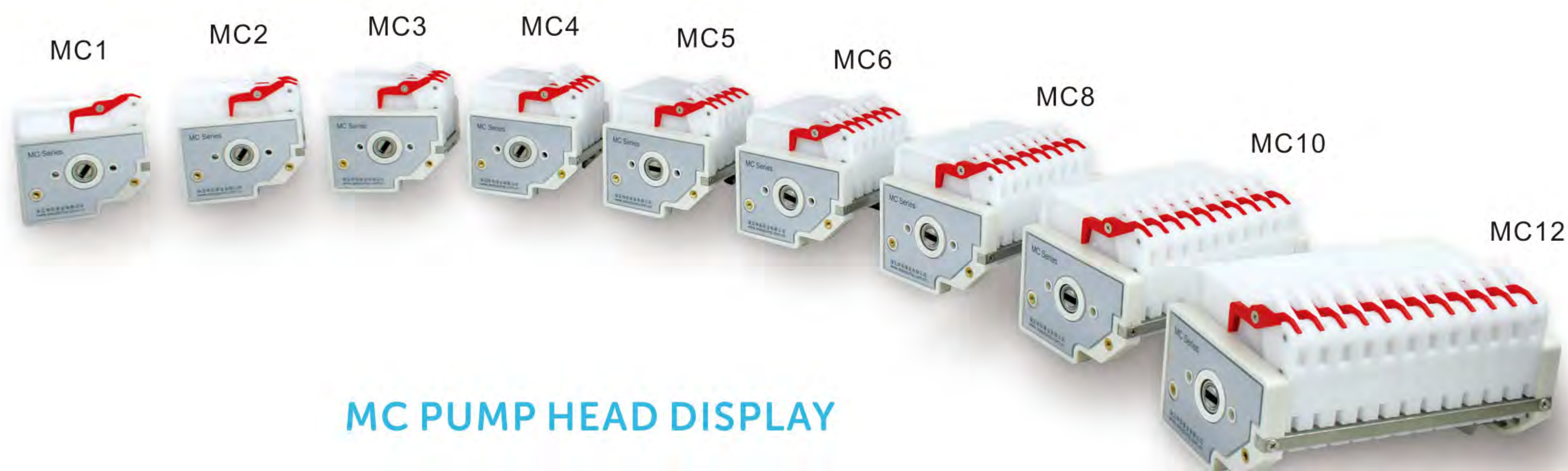
1. The traditional DG series pump head need to open the cartridge from the bottom. It is very inconvenient to use when the space of the equipment is compact. The MC series pump head just need to open the cartridge from the top, easy to operate.

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



DG Series

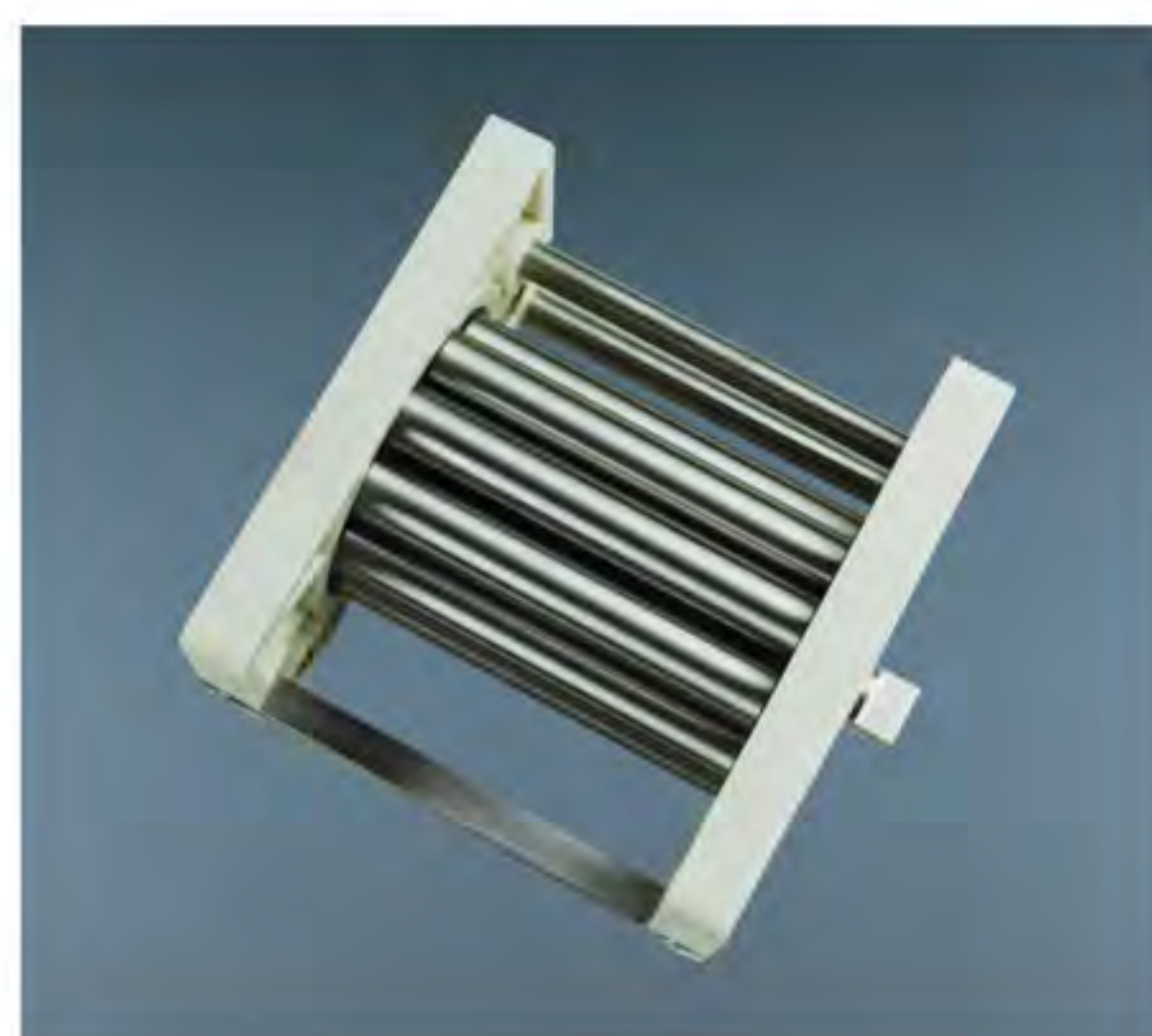
## Multichannel Pump Head-MC Series



### MC PUMP HEAD DISPLAY

### Tubing Installation Procedure

Roller assembly  
(10 roller)



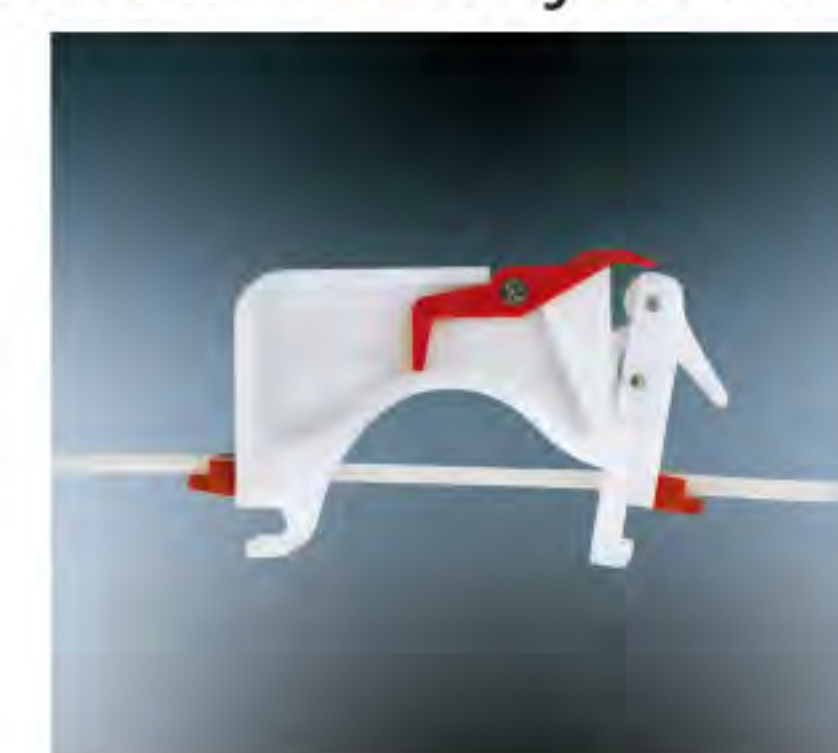
A. Turn the spanner clockwise to take it off from the lever.



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)					
				Continuous	Intermittent				
1 × 1	0.1~150rpm	0.0046~6.90	0.0053~7.95	0.1	0.1				
2 × 1		0.0156~23.40	0.021~31.35						
2.4 × 0.8		0.0212~31.80	0.0274~41.10						
3 × 1		0.0324~48.60	0.043~64.95						
0.13 × 0.86		0.00016~0.24	0.000185~0.277						
0.19 × 0.86		0.0002~0.27	0.0003~0.420						
0.25 × 0.86		0.0003~0.480	0.0005~0.720						
0.51 × 0.86		0.0014~2.10	0.0020~3.0						
0.89 × 0.86		0.0039~5.85	0.0057~8.55						
1.14 × 0.86		0.0066~9.90	0.0090~13.5						
1.52 × 0.86		0.0093~13.95	0.0133~19.95						
2.06 × 0.86		0.015~22.50	0.0250~37.5						
2.79 × 0.86		0.024~35.85	0.037~55.50						



# Multichannel Pump Head

## DG Series



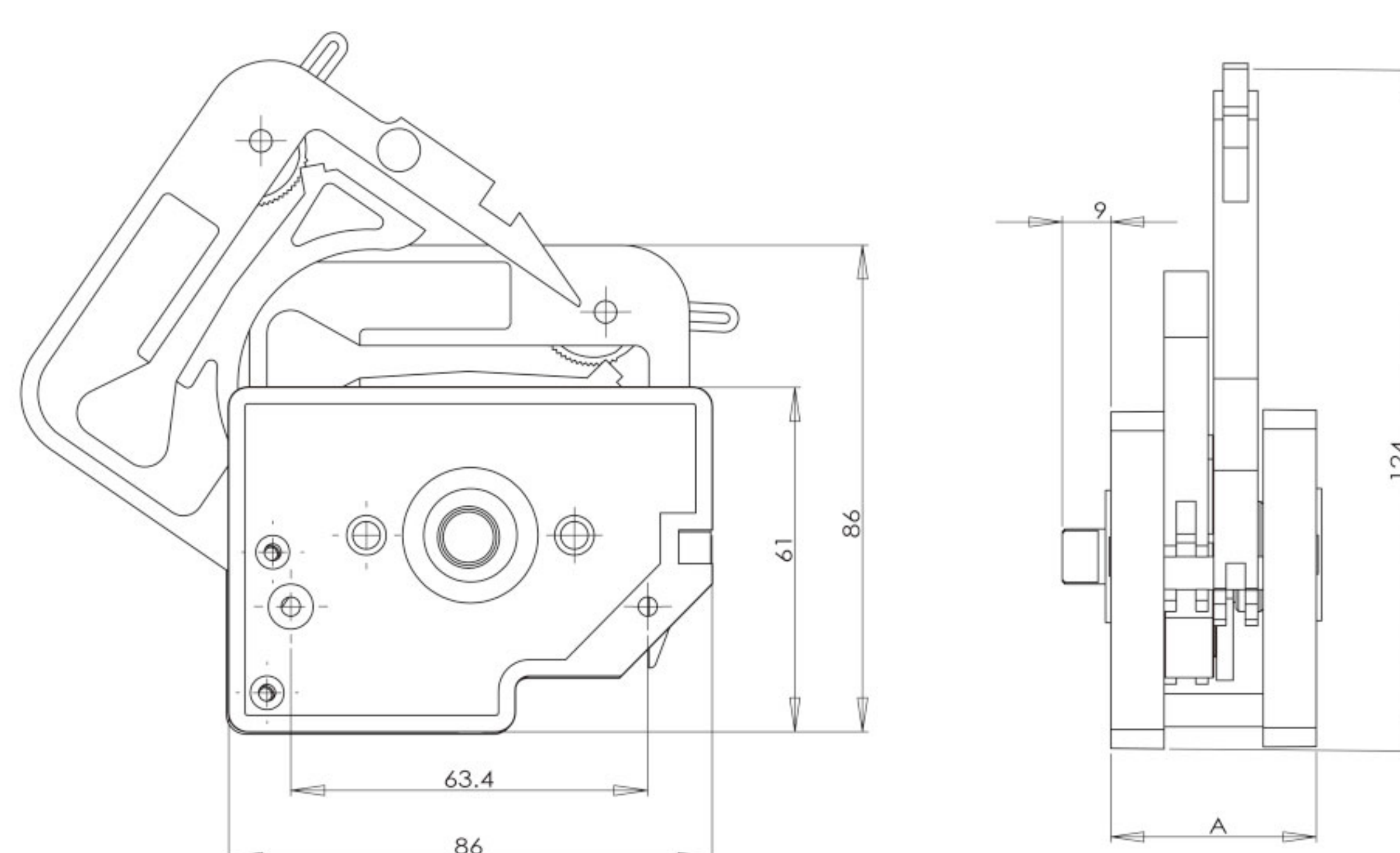
## Product Introduction

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

## Model Number

| DG-1, DG-2, DG-4, DG-6, DG-8, DG-12

## Dimension Drawing (Unit: mm)



## Typical Application

Widely used in supporting analytical instruments and laboratories.



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	0.00008–27 mL/min(per channel)					
	10 rollers	0.000067–21.6 mL/min (per channel)					
Cartridge material		POM					
Rollers material		304 stainless steel					
Weight (kg)	6 rollers	0.21	0.27	0.40	0.54	0.67	0.95
	10 rollers	0.20	0.26	0.39	0.51	0.63	0.88

