

Flow Rates Peristaltic Pump

LabV1, LabV3, LabV6

3 years warranty



LabV1, LabV3, LabV6

Laboratory

Industrial equipment supporting

Suitable Pump Head



YZ1515x



YZ2515x



MC Series



DG Series

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.

Flow Rates Peristaltic Pump

V1, V3, V6

3 years warranty

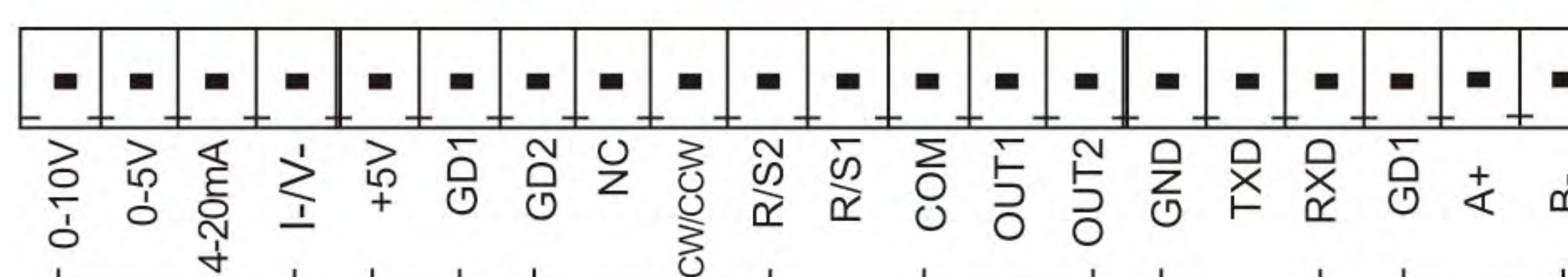


V1, V3, V6

Laboratory

Industrial equipment

External Control Schematic Diagram



Technical Specifications			
Flow rate range	LabV1/ V1: 0.000166~570 mL/min	Start/stop, direction signal	Passive switch signal, such as foot pedal switch
	LabV3/ V3: 0.000166~1330 mL/min		Active switch signal: 5V, 12V and 24V for option
	LabV6/ V6: 0.000166~2280 mL/min		
Speed range	0.1-600 rpm	Communication interface	RS232, RS485 support MODBUS protocol (RTU mode)
Speed resolution	0.01 rpm	Output interface	Output motor working status (Open-Collector output)
Flow rate resolution	0.01 μ l	Power supply	AC 220V \pm 10% 50Hz/60Hz (standard) AC 110V \pm 10% 50Hz/60Hz (optional)
Flow rate accuracy	< \pm 0.5%	Drive dimension (L \times W \times H)	LabV Series: 261.4 \times 157.3 \times 236.9 mm V Series: 252 \times 152 \times 243 mm
Back suction angle	0-360 $^\circ$		Drive weight
Outlet pressure	0.1Mpa (0.8-1.0mm wall thickness tubing) 0.1-0.27Mpa (1.6-2.4mm wall thickness tubing)	Power consumption	< 50W
Motor type	Stepper motor	Condition temperature	0-40 $^\circ$ C
Display	Industrial grade 4.3" LCD color 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, 4-20mA for option		

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: 0.8-1mm		
	LabV1/V1	0.1-150rpm	0.007~570	0.17~435	0.000166-49(suggest working rotating speed \leq 150rpm)	0.000185-65(suggest working rotating speed \leq 150rpm)
	LabV3/V3	0.1-350rpm	0.007~1330	0.17~1015		
	LabV6/V6	0.1-600rpm	0.007~2280	0.17~1740		

Flow rate Setting Interface

External Control Speed Setting Interface

Fixed Volume Measurement Setting Interface

Fixed Time and Volume Setting Interface

Timer Start and Stop Setting Interface



Easy Load Pump Head

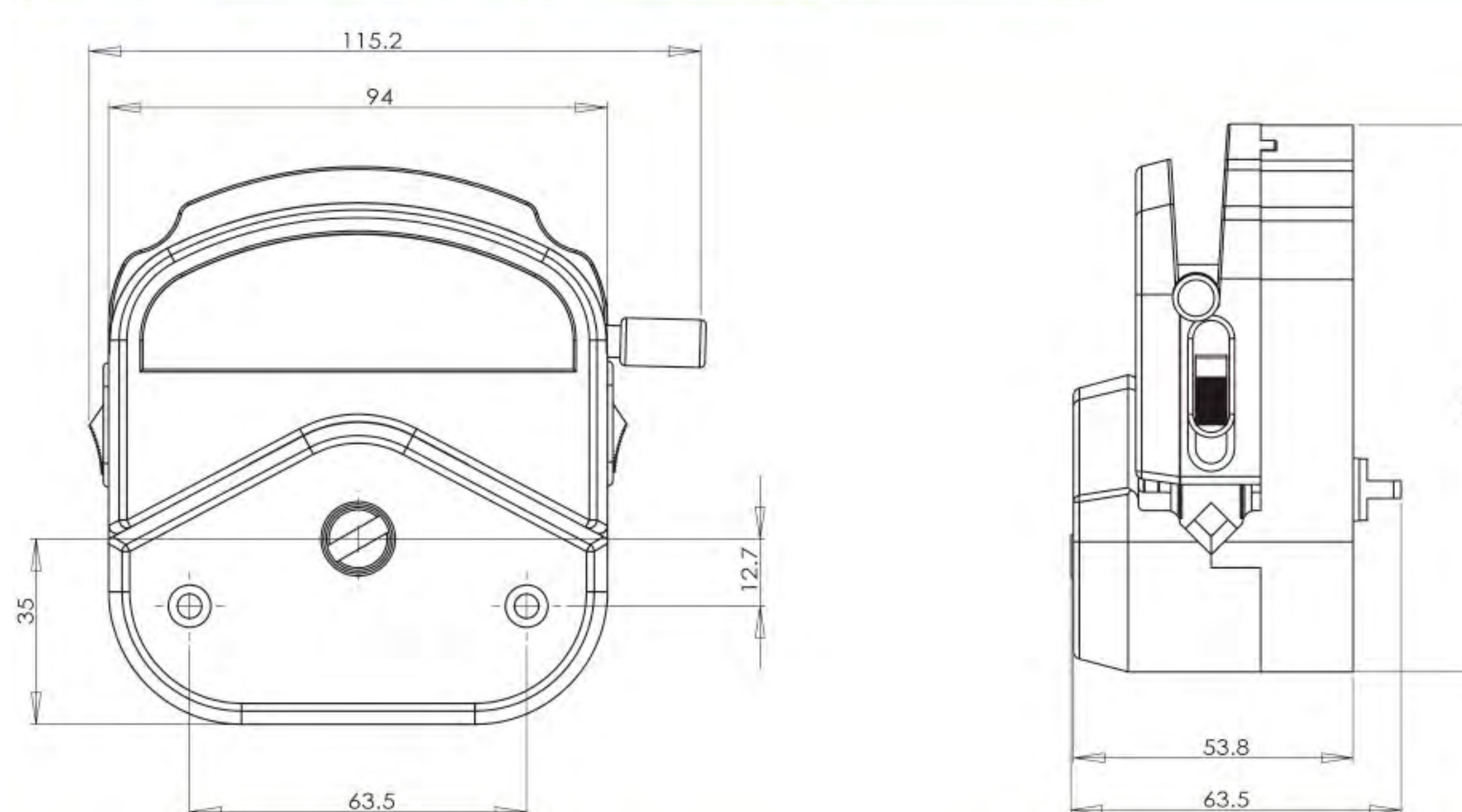
YZ1515x, YZ2515x



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				
	17#	6.4×1.6	2.9	0.29~1740				
YZ2515x	18#	7.9×1.6	3.8	0.38~2280	0.10	0.07	0.40 (3 rollers)	0.46 (3 rollers)
	15#	4.8×2.4	1.7	0.17~1020	0.27	0.17		
	24#	6.4×2.4	2.9	0.29~1740				



Multichannel Pump Head-MC Series

POM Material & PVDF Material



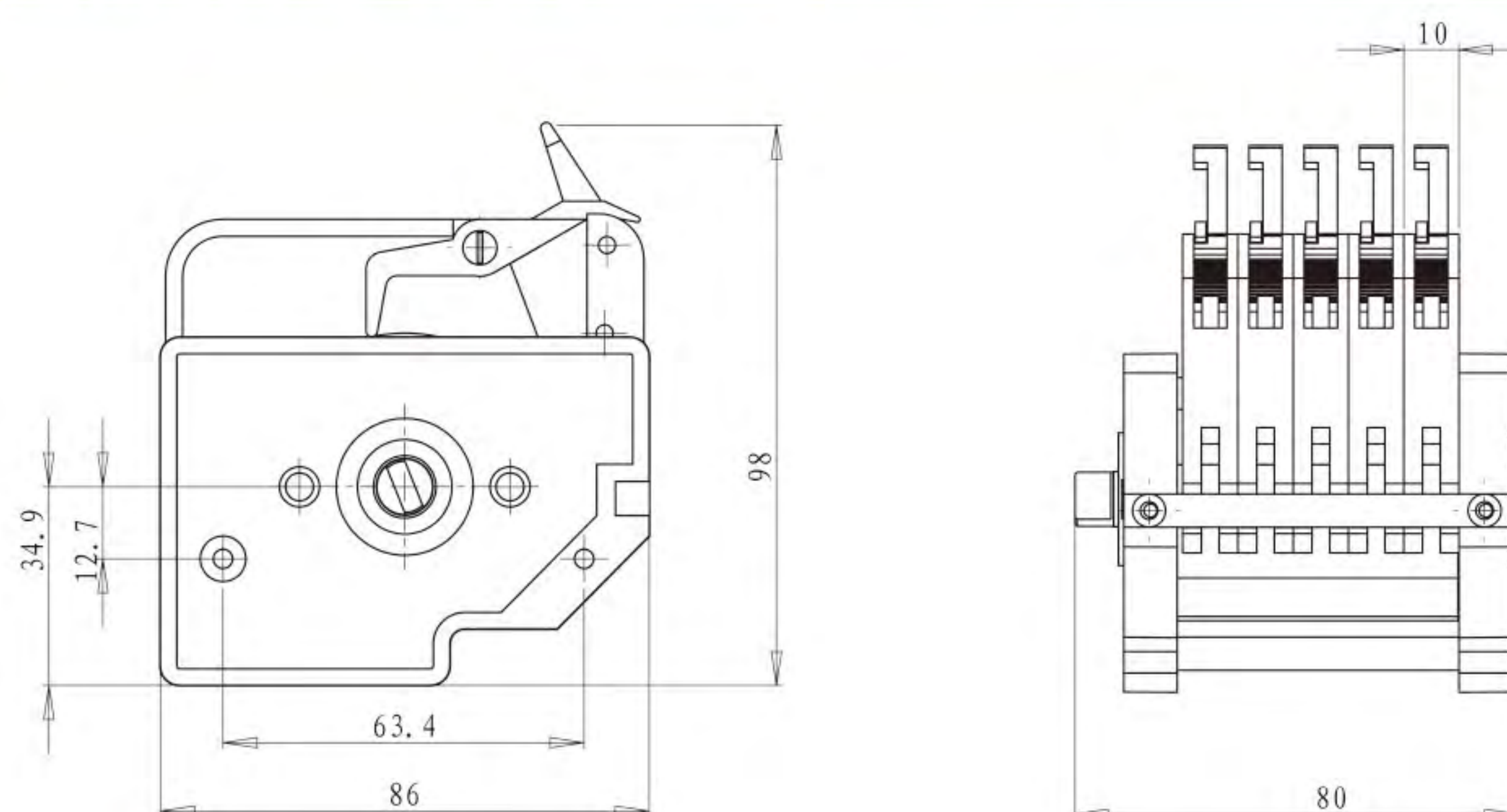
Typical Application

- | 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.

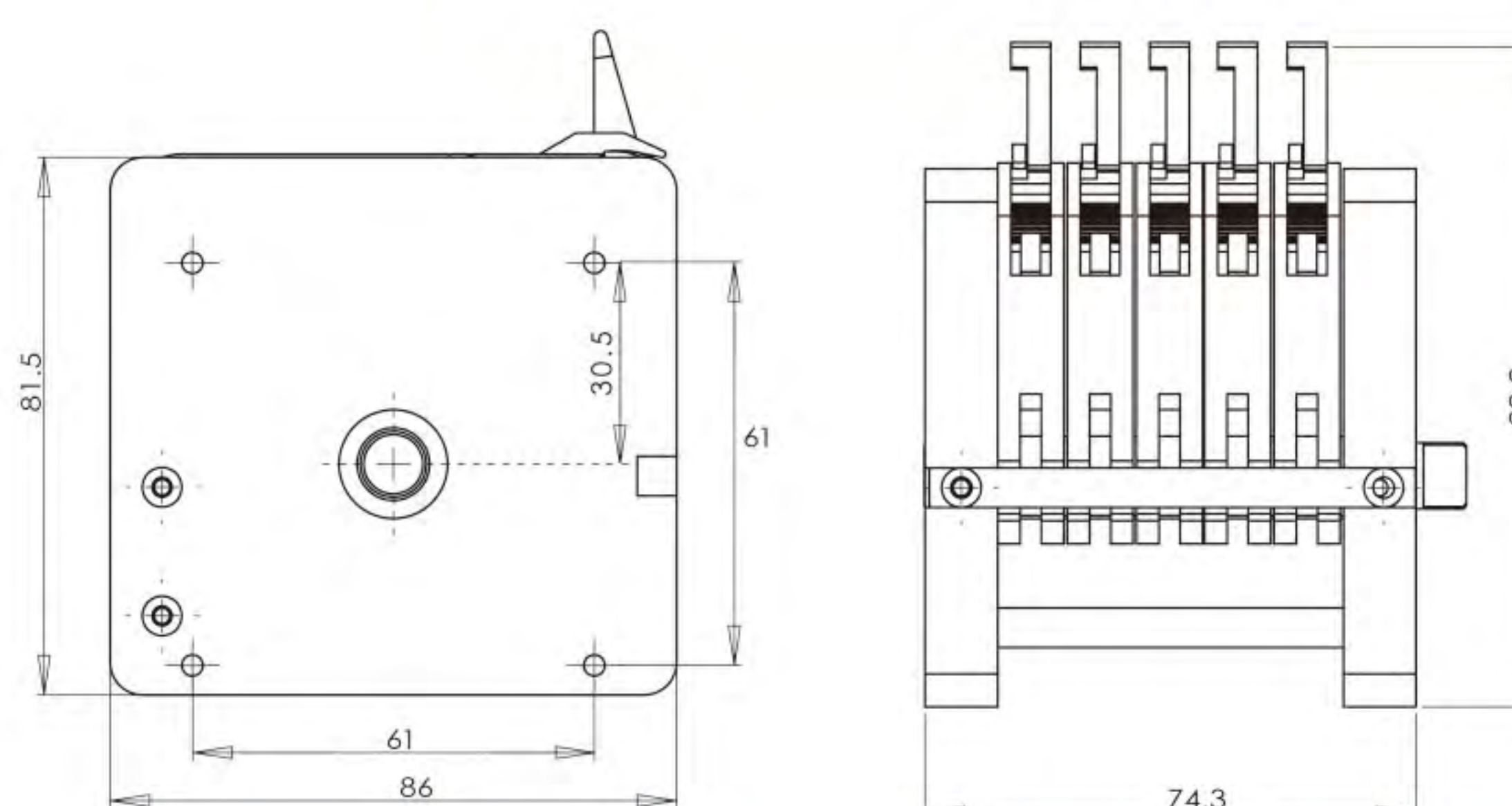
Dimension Drawing (Unit: mm)



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



Dimension 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



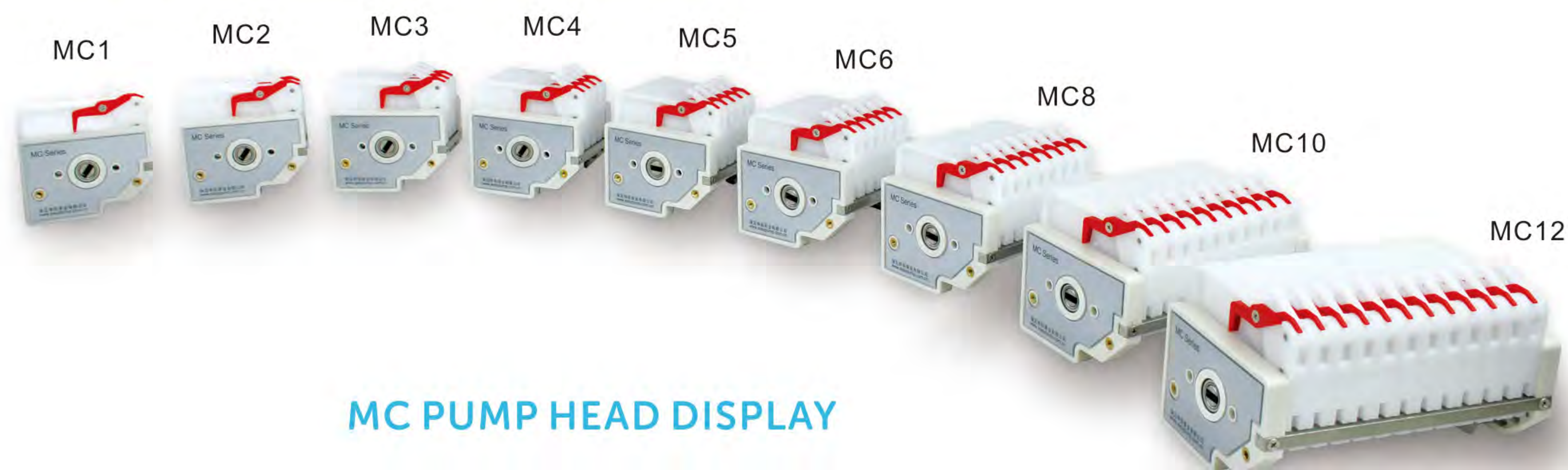
1. The traditional DG series pump head need to open the cartridge from the bottom. It is very inconvenient to use when the space of the equipment is compact. The MC series pump head just need to open the cartridge from the top, easy to operate.

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



DG Series

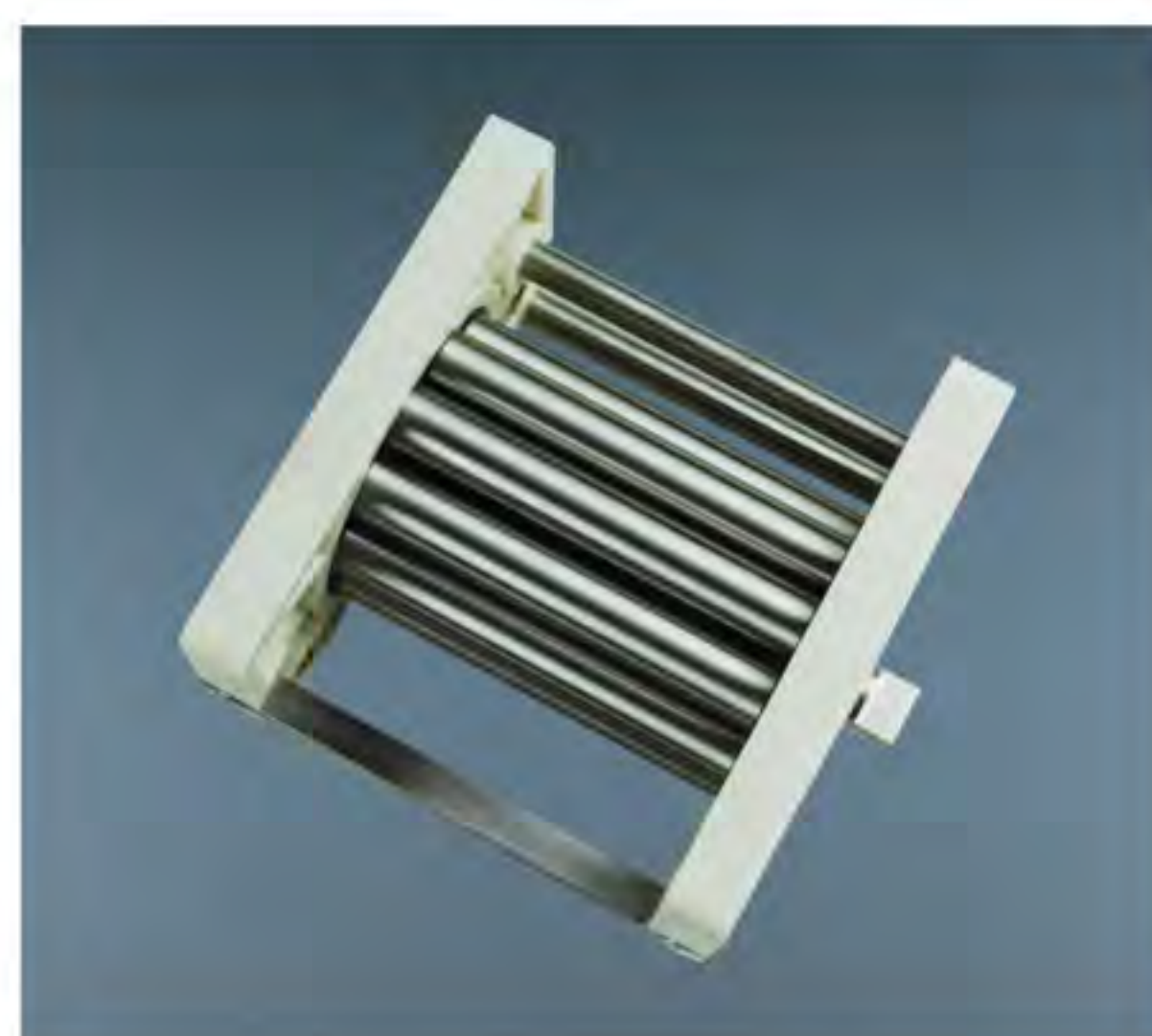
Multichannel Pump Head-MC Series



MC PUMP HEAD DISPLAY

Tubing Installation Procedure

Roller assembly
(10 roller)



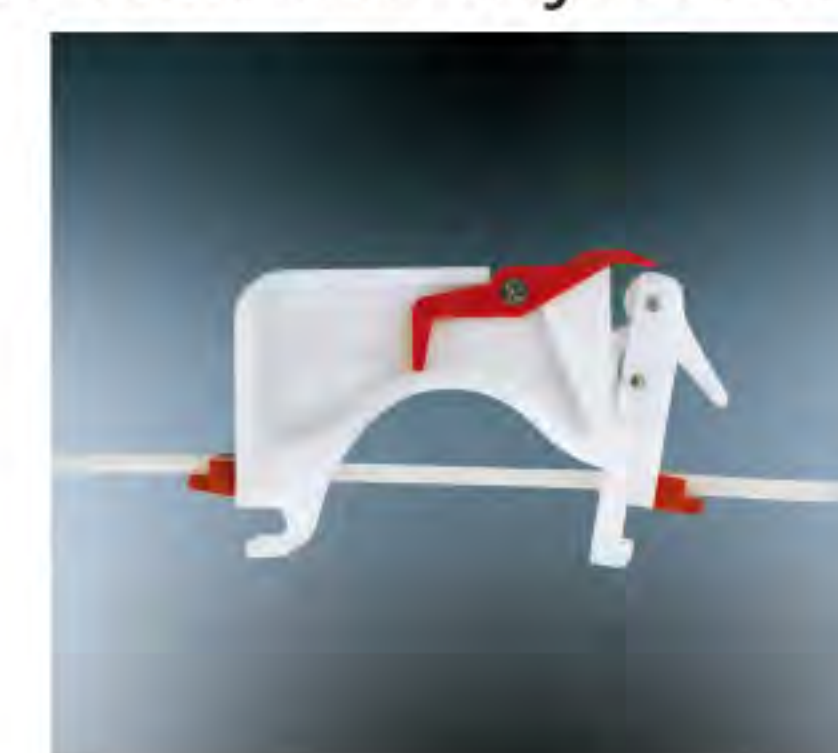
A. Turn the spanner clockwise to take it off from the lever.



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



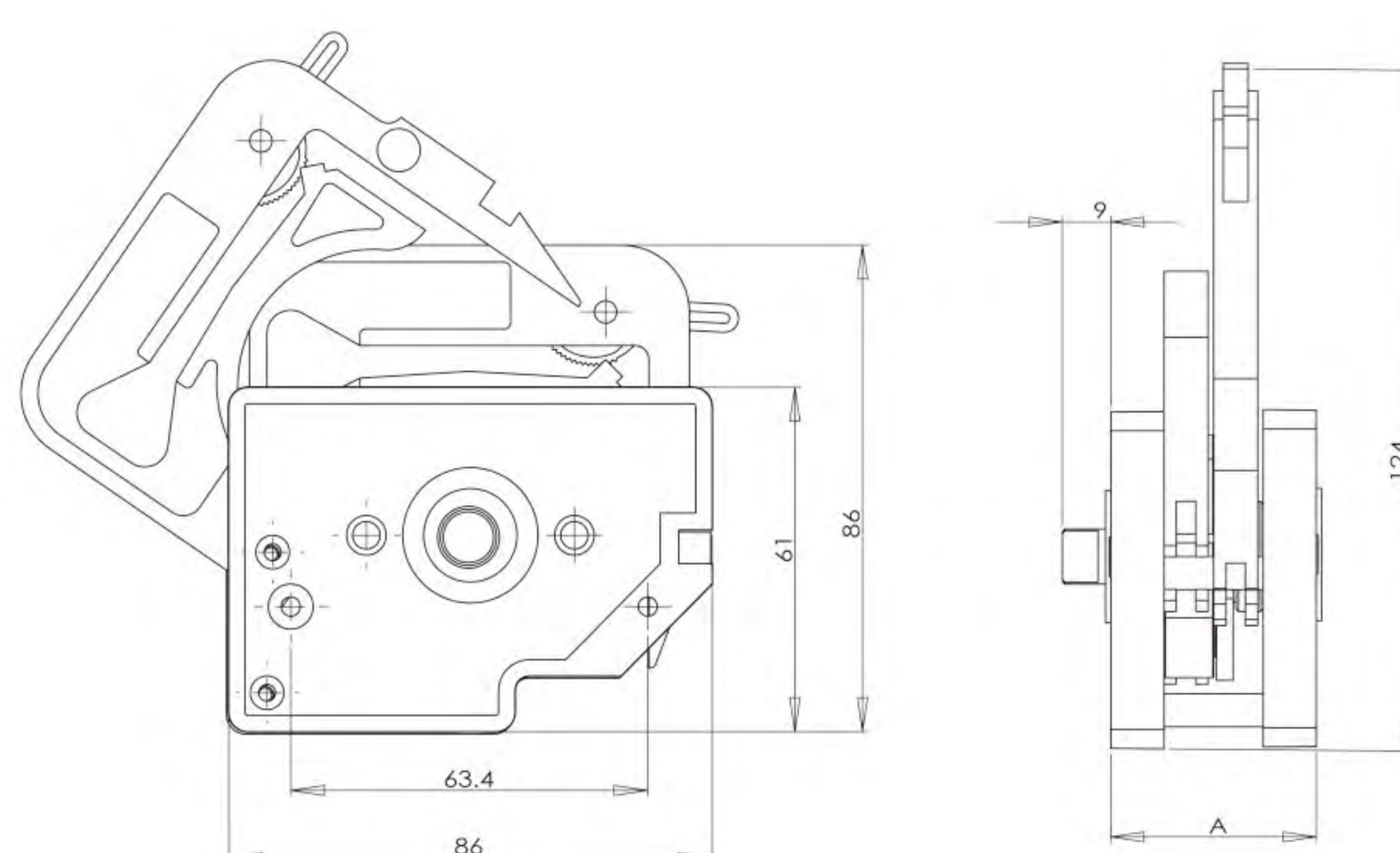
Product Introduction

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

