SHENCHEN

Pump Head & OEM

Shenchen Pump

ISO9001

Exported to **103** *countries*

Intelligent, just for easier.

Baoding Shenchen Precision Pump Co.,Ltd

Baoding Peristaltic Pump Engineering Technology Research Center

2021

EXPORTED TO 103 COU

2016–2021

Baoding Peristaltic Pump Engineering Technology Research Center was established in Shenchen, Passed ISO9001 quality system certification, peristaltic pump research and development center level: A level,

Successfully launched a new generation of easy load type pump heads and a new generation of multichannel pump heads, Exported to 103 countries.

2010–2015

Successfully registered the "Shenchen" trademark,

Obtained CE certification issued by European Union,

Launched intelligent filling system CF600 and DF600 ,

Launched LabV and LabF series intelligent peristaltic pump.

2007–2009

Successfully launched MC series pump head, Minipump series compact type pump head, SN series standard pump head, N series standard type peristaltic pump.

NTRIES SHENCHEN

Since 2006

2006

Shenchen is the first to use PPS polyphenylene sulfide materials to produce easy load type pump heads in China. It solves the technical problem that the original PSU polyyan material pump head is not resistant to chemical corrosion. Successfully launched the basic peristaltic pump, flow rate peristaltic pump, and dispensing peristaltic pump.

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, which has research engineer, application engineer, professional sales and service engineer. With rich technical force, excellent technological process and outstanding product quality, Shenchen gets 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 103 countries.

- **Shenchen has 4 invention patents,**
- **30 utility model patents,**
- **28 appearance design patents,**
- **3 international patents.**

Baoding Peristaltic Pump Engineering Technology Research Center

APPLICATION

Fermentation tank supporting

Online water quality analyzer

Ocean detection analyzer

Cosmetic filling

Analysis instrument supporting

Biochemical analysis equipment

Analysis instrument supporting

Reagents dispensing

SHENCHEN

Pump Head Flow Rate

New Generation

easy load type pump head

tube and clamp linkage -more easy to install the tube

NEW

Accept reservation

<Single channel>

Features:

- The tube clamp linkage mechanism makes it more convenient to install the tube.
- The rubbing wheel adjustment mechanism can easily fix different size tube.
- The lever assist mechanism makes the operation more labor-saving.
- The tube pressure gap fine-tuning mechanism can adjust the pressure, extend the life of the tube and improve the dispensing accuracy.
- Tube tubes can be installed at the same time to realize single pump head with two channels.

<Dual channel>

New Generation

multichannel type pump head

more easy to open with one hand

Features:

- The elastic positioning mechanism enables users remove and install cartridge with one hand.
- The elastic pressure tube design effectively extends the life of the tube.
- Stepless adjustment of the tube pressure gap, effectively improving the flow rate accuracy between channels.
- The mute design of the roller assembly realizes low noise and high speed operation.

DIRECTORY

1 COMPANY
2 APPLICATION
3 NEW PRODUCT
4 PRODUCTS

- Compact Pump Head 01
  - MicroPump 01
  - MiniPump 03
  - UD15 06
  - UC25 07
- Multichannel Pump Head 08
  - New Generation multichannel type pump head 08
  - MC Series 09
  - MD1 12
  - MT12 13
- Easy Load Pump Head 14
  - New Generation easy load type pump head 14
  - HandyPump 15
  - AUD–I–HandyPump 18
  - YZ Series 19
  - YZ35 Series 22
- Standard Pump Head 24
  - SN Series 24
- Fast Load Pump Head 26
  - DZ25 Series 26
- Low Pulse Pump Head 29
  - DY Series 29
- Integrated Driver Module 31
- User Driven/Speed Tyep Control Board 34
- Peristaltic Pump Tubing and Accessory 35

Compact Pump Head

MicroPump

(3 rollers)

Model No

MicroPump, Max flow rate: 0.004-149.23mL/min

Product Features

Beautiful appearance,compact size,variety colors to choose, OEM ideal choice, can be driven by stepper motor, DC motor etc.

Industry Application

- Biochemical analyzer,support medical equipment
- Plant protection drone

Pump Head Installation Procedure

35 Stepper motor

Dimension Drawing(Unit: mm)

DC motor

Dimension Drawing(Unit: mm)

Single gear

Double gear

Patent No: ZL2017304471821; ZL201721210095.5

Compact Pump Head

Stepper motor breakdown drawing

DC motor breakdown drawing

Color Selection

Pump head housing and roller bracket color

Pump head color	Transparency	Green	Red	Yellow	Purple
	T	G	R	Y	P
Roller bracket color	White	Green	Red	Yellow	Blue
	W	G	R	Y	B

Flow model selection

Tubing No.			S04	S06	S10	S22	B04	B06	B10	B22
Tubing ID. (wall thickness 1mm)			1mm	2mm	3mm	4mm	1mm	2mm	3mm	4mm
Tubing material			Silicone tubing	Silicone tubing	Silicone tubing	Silicone tubing	BPT	BPT	BPT	BPT
Flow rate (mL/min)	24V Brush/Brushless HA/HD	Single gear	14.88	50.05	110.27	149.23	14.88	50.05	110.27	149.23
		Double gear	1.28	4.29	9.45	12.79	1.28	4.29	9.45	12.79
	12V Brush/Brushless HB/HE	Single gear	14.88	50.05	110.27	149.23	14.88	50.05	110.27	149.23
		Double gear	1.28	4.29	9.45	12.79	1.28	4.29	9.45	12.79
	6V Brush/Brushless HC/HF	Single gear	14.88	50.05	110.27	149.23	14.88	50.05	110.27	149.23
		Double gear	1.28	4.29	9.45	12.79	1.28	4.29	9.45	12.79
	35Stepper motor(350rpm)STB		14.88	50.05	110.27	149.23	14.88	50.05	110.27	149.23

Compact Pump Head

MiniPump Series

(4 rollers)

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.

Soft tube connect to hard tube	Supporting conversion connector (soft tube transfer hard tube), connect directly with a variety of hard tubes.

Connection type installation hose

Standard fast plug , convenient for external connection with different materials of the tube, flexible application , cost saving.

Install hose without connector

1. Adopt special hygienic grade tube, The whole tube is installed.
2. No connection simplifies design to prevent leakage and pollution risk.

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.

Patent No: ZL201130002460.5; ZL201120015673.6

OEM-B01

Dimension Drawing(Unit: mm)

OEM-B01 Technical Specifications	
Speed range	0.1-300 rpm
Flow rate range	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
Working environment	0-40℃, 80%RH

OEM-B02, OEM-B039/OEM-B040, OEM-B022

Dimension Drawing(Unit: mm)

OEM-B02 Technical Specifications	
Speed range	0.1–300 rpm
Flow rate range	0.0024–190mL/min
Speed control	Preset speed or serial port control
Subdivision settings	1/16
Motor type	42 stepper motor
Power supply	DC 24V, ⩾48W
Working environment	0-40℃, 80%RH

OEM-B039/B040 Technical Specifications	
Speed range	0.1–300 rpm
Flow rate range	0.0024–190mL/min
Speed control	External input pulse frequency speed control
Subdivision settings	1/16(recommend), 1, 1/2, 1/4, 1/8, 1/32, 1/64, 1/128
Motor type	42 stepper motor
Power supply	DC 24V, ⩾48W
Working environment	0-40℃, 80%RH

OEM-B022 Technical Specifications	
Speed range	0.1–300 rpm
Flow rate range	0.0024–190mL/min
Speed control	Adjust speed by internal potentiometer
Subdivision settings	1/16
Motor type	42 stepper motor
Power supply	DC 24V, ⩾48W
Working environment	0-40℃, 80%RH

OEM-B013

Dimension Drawing(Unit: mm)

OEM-B013 Technical Specifications			
Speed range	0.1-300rpm	Address setting	1-32
Flow rate range	0.0024-190mL/min	Motor type	42 stepper motor
Speed control	Communication control	Power supply	DC 24V, ⩾48W
Communication interface	RS232,RS485 interface modbus protocol, control start/stop, direction and speed	Working environment	0-40℃, 80%RH

OEM-B136, OEM-B137

Dimension Drawing(Unit: mm)

Pump Head NO.	L
2	75.6
3	113.4
4	151.2

OEM-B136 Technical Specifications	
Speed range	0.1–300 rpm
Flow rate range	0.0024–190mL/min
Speed control	Preset speed and manual control
Control mode	External passive signal level (normally closed or open) mode; control the start/stop of direction
Display(optional)	0.96" OLED screen
Motor type	57 stepper motor
Power supply	DC 24V, ⩾150W
Working environment	0-40℃, 80%RH

OEM-B137 Technical Specifications	
Speed range	0.1–300 rpm
Flow rate range	0.0024–190mL/min
Speed control	Pulse frequency speed control
Logic input voltage	5V, 12V, 24V(default 5V)
Multiple segments	1/16(recommend), 1, 1/2, 1/4, 1/8, 1/32, 1/64, 1/128
Motor type	57 stepper motor
Power supply	DC 24V, ⩾150W
Working environment	0-40℃, 80%RH

OEM-B047 OEM-B048 OEM-B049

Dimension Drawing(Unit: mm)

Model No.	OEM-B047/OEM-B048/OEM-B049
Speed range	0.1-300 rpm
Flow rate range	0.0024-190mL/min
Outer control	Passive switch signal control start/stop and direction
Speed control	OEM-B047:External potentiometer speed control 0-5V OEM-B045: External potentiometer speed control 0-10V OEM-B046: External potentiometer speed control 4-20mA
Motor type	42 stepper motor
Power supply	DC 24V, ≥48W
Working environment	0-40℃, 80%RH

OEM-MZ Series

Dimension Drawing(Unit: mm)

Note: OEM-MZ306 outline dimension drawing

Model No.	Motor Type	Power Supply	Motor Speed (rpm±10%)	Flow Rate (mL/min)
OEM-MZ001	Φ37 DC motor	DC12V/1.5A	170	≤107.67
OEM-MZ004			300	≤190.00
OEM-MZ104		DC24V/1.2A	20	≤12.67
OEM-MZ107			100	≤61.98
OEM-MZ108			160	≤101.33
OEM-MZ111			300	≤190.00
OEM-MZ304	Φ32 DC planetary gear motor	DC24V/1.2A	50	≤31.14
OEM-MZ306			100	≤61.98

OEM-MJ Series

Dimension Drawing(Unit: mm)

Model No.	Motor Type	Power Supply	Motor Speed (rpm±10%)	Direction
OEM-MJ107	AC motor	AC220V	15.5/18.6	CCW

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

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	19# ID 2.4mm	16# ID 3.1mm	25# ID 4.8mm
5	0.12	0.56	1.26	1.97	3.26
10	0.26	1.15	2.53	3.90	6.41
15	0.39	1.74	3.80	5.80	9.52
25	0.66	2.88	6.31	9.59	15.74
40	1.08	4.59	10.11	15.29	25.15
50	1.34	5.69	12.62	18.96	31.14
75	2.00	8.54	18.93	28.36	46.55
100	2.73	11.37	25.27	37.66	61.98
200	5.46	22.76	50.82	76.02	124.14
250	6.81	28.40	65.39	95.08	153.63
300	8.28	33.88	77.23	114.31	190.00

Compact Pump Head

UD15

(2 rollers)

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.

Model No.	OEM-UB01
Speed range	0.1-300 rpm
Flow rate range	0.08-930mL/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
Working environment	0-40℃, 80%RH

Dimension Drawing(Unit: mm)

OEM-UB02, OEM-UB09/UB10, OEM-UB016

Dimension Drawing(Unit: mm)

OEM-UB02 Technical Specifications	
Speed range	0.1–300 rpm
Flow rate range	0.0024–190mL/min
Speed control	Preset speed or serial port control
Subdivision settings	1/16
Motor type	42 stepper motor
Power supply	DC 24V, ⩾48W
Working environment	0-40℃, 80%RH

OEM-UB09/UB10Technical Specifications	
Speed range	0.1–300 rpm
Flow rate range	0.0024–190mL/min
Speed control	External input pulse frequency speed control
Subdivision settings	1/16(recommend), 1, 1/2, 1/4, 1/8, 1/32, 1/64, 1/128
Motor type	42 stepper motor
Power supply	DC 24V, ⩾48W
Working environment	0-40℃, 80%RH

OEM-UB016 Technical Specifications	
Speed range	0.1–300 rpm
Flow rate range	0.0024–190mL/min
Speed control	Adjust speed by internal potentiometer
Subdivision settings	1/16
Motor type	42 stepper motor
Power supply	DC 24V, ⩾48W
Working environment	0-40℃, 80%RH

OEM-UB04

Dimension Drawing(Unit: mm)

Model No.	OEM-UB04
Speed range	0.1-350 rpm
Flow rate range	0.08-930mL/min
Motor type	42 stepper motor
Speed control	Communication control
Address setting	1-32
Power supply	DC 24V, ≥48W
Communication interface	RS232,RS485 interface modbus protocol, control start/stop, direction and speed
Working environment	0-40℃, 80%RH

OEM-UXZ Series

Dimension Drawing(Unit: mm)

Model No.	Motor Type	Power Supply	Motor Speed (rpm±10%)	Flow Rate (mL/min)
OEM-UXZ03	Φ37 DC planetary gear motor	DC12V/5A	150	≤398
OEM-UXZ06			350	≤930
OEM-UXZ13		DC24V/4A	150	≤398
OEM-UXZ16			350	≤930

Compact Pump Head

OEM-UJ Series

Dimension Drawing(Unit: mm)

UJ010

Model No.	Motor Type	Power Supply	Motor Speed (rpm±10%)	Flow Rate (mL/min)
OEM-UJ010	AC motor	AC220V	80	≤212
OEM-UJ21	Φ70 ACmotor	AC220V	350	≤930

UJ21

Experimental conditions:standard atmospheric pressure, room temperature at 20°C,the liquid is pure water, no pressure, no suction and lift.
Note: Actually, it is affected by many factors such as transmission medium, inlet and outlet pressure, hose material and error, working environment, etc. This data is for reference only.

Model No.	Housing Material		Tubing		Speed Range(rpm)	Flow Rate (mL/min)	Weight (kg)
	Body	Protective cover	Tubing Sizes	ID×Wall Thickness			
UD15 (2 rollers)	PSF	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)		0.26~930	

Compact Pump Head

Product Introduction

UC25, compact pump head, functional design, more practical. Transparent protective cover,can observe the working situation anytime; uncover signal output, stop working when uncover to ensure safety; running smoothly, low noise; support DC motor, brushless DC motor,stepper motor, servo motor and AC motor.

(2 rollers) OEM-UCXZ Series

Dimension Drawing(Unit: mm)

DC motor Technical Specifications

Model No.	UCXZ00X series, UCXZ10X series, UCXZ20X series, UCXZ30X series
Motor type	Brush/Brushless DC plenetary gear motor
Voltage	DC12V/DC24V
Speed(rpm)	300
Speed error	≤ ± 10%
Working environment	0-40℃, 80%RH

OEM-B236

Dimension Drawing(Unit: mm)

Step motor Technical Specifications

Model No.	OEM-B236
Motor type	57 stepper motor
Motor phase number	2
Motor step angle	1.8°
Motor phase voltage	1.5V
Motor phase current	3A
Working environment	0-40℃, 80%RH

OEM-UCB001

Dimension Drawing(Unit: mm)

Servo motor Technical Specifications

Model No.	OEM-UCB001
Motor type	Step servo motor
Motor phase number	2
Motor step angle	1.8°
Motor phase voltage	1.9V
Motor phase current	5A
Encoder power voltage	DC5V (±10%)
Encoder resolution	1000cpr
Working environment	0-40℃, 80%RH

Experimental conditions:standard atmospheric pressure, room temperature at 20°C, the liquid is pure water, no pressure, no suction and lift.
Note: Actually, it is affected by many factors such as transmission medium, inlet and outlet pressure, hose material and error, working environment, etc. This data is for reference only.

Technical Specifications

Model No.	Housing Material		Tubing		Speed Range(rpm)	Flow Rate(mL/min)	Weight (kg)
	Base	Protective cover	Tubing Sizes	ID×Wall(mm)			
UC25	PSF	PC	15#	4.8×2.4	0.1-600	0.3423~2054	1.39
			24#	6.4×2.4		0.5033~3020	
			35#	7.9×2.4		0.8588~5153	
			36#	9.6×2.4		1.1105~6663	

Multichannel Pump Head

New generation multichannel type pump head

(8 rollers)

Product Introduction

- Brand new design, give you a brand new experience! Not only the appearance is exquisite, but the functional design is more practical.
- The unique elastic positioning mechanism allows users to install and remove cartridge with one hand. Multichannel, small volume transferring.
- Elastic pressure tube design to extend the service life of the tube.
- Stepless adjustment of the tube pressure gap, effectively improving the accuracy between channels.
- 304 stainless steel roller assembly, including 6 rollers, 8 rollers, and 10 rollers structure, of which 8 rollers are designed with low noise and high speed, suitable for supporting various analytical instruments.

Product Features

- The elastic positioning mechanism enables users remove and install cartridge with one hand.
- The elastic pressure tube design effectively extends the life of the tube.
- Stepless adjustment of the tube pressure gap, effectively improving the flow rate accuracy between channels.
- The mute design of the roller assembly realizes low noise and high speed operation.
- Exquisite appearance, compact structure, ideal for supporting instruments.

Typical Application

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

Dimension Drawing(Unit: mm)

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

Tubing Installation Procedure

1.Easily press the elastic lock arm mechanism to open the cartridge.

2.After the cartridge is disconnected, install the tube, the two adjacent tube stoppers determine a working position.

3.Press the cartridge to make the cartridge enter the working position

4.pull the pressing device to enter the pressure tube state.

5.Installation finished.

Patent No: ZL202030250105.9; ZL202030250745.X; ZL202030250744.5; ZL201922187842.3
EU patent number: 008005789-0001

Multichannel Pump Head

Experimental conditions:standard atmospheric pressure, room temperature at 20°C,the liquid is pure water, no pressure, no suction and lift.
Note: Actually, it is affected by many factors such as transmission medium, inlet and outlet pressure, hose material and error, working environment, etc. This data is for reference only.

New generation multichannel type pump head 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	8 rollers								

Tubing	Speed	Flow rate of pump head with 8 rollers (mL/min)	Tubing maximum pressure (Mpa)	
			Continuous	Intermittent
1×1	0.1~150rpm	0.0049~7.38	0.1	0.1
2×1		0.0200~30.02		
2.4×0.8		0.0273~41.02		
3×1		0.0345~51.79		
0.13×0.86		0.0002~0.25		
0.19×0.86		0.0003~0.28		
0.25×0.86		0.0004~0.57		
0.51×0.86		0.0016~2.42		
0.89×0.86		0.0046~6.84		
1.14×0.86		0.0074~11.12		
1.42×0.86		0.0107~16.1		
2.06×0.86		0.0206~30.95		
2.79×0.86		0.0329~49.39		

Multichannel Pump Head-MC Series

POM Material &PVDF Material

(6/10 rollers)

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 for 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.

Typical Application

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

Patent No: ZL201130101376.9; ZL201120189392.2

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.

Experimental conditions:standard atmospheric pressure, room temperature at 20°C,the liquid is pure water, no pressure, no suction and lift.
Note: Actually, it is affected by many factors such as transmission medium, inlet and outlet pressure, hose material and error, working environment, etc. This data is for reference only.

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		

OEM Product

Multichannel Pump Head Series

OEM-B09/MC1

42 Stepper motor

Dimension Drawing(Unit: mm)

OEM-B09 Technical Specifications			
Speed range	0.1-150rpm	Motor step angle	1.8°
Flow rate range	0.00166-65mL/min	Motor phase voltage	2.2V
Motor type	42 stepper motor	Motor phase current	1.0A
Motor phase number	2	Working environment	0-40℃, 80%RH

OEM-B130/MC

57 Stepper motor

Dimension Drawing(Unit: mm)

When the length of one channel is L=31mm, each additional channel L increases by 10.2mm, this picture shows 4 channels

OEM-B130 Technical Specifications			
Speed range	0.1-150rpm	Motor step angle	1.8°
Flow rate range	0.00166-65mL/min	Motor phase voltage	3.3V
Motor type	57 stepper motor	Motor phase current	1.0A
Motor phase number	2	Working environment	0-40℃, 80%RH

OEM-B19/MC

Dimension Drawing(Unit: mm)

When the length of one channel is L=31mm, each additional channel L increases by 10.2mm, this picture shows 4 channels

OEM-B19 Technical Specifications			
Speed range	0.1-150rpm	Motor step angle	1.8°
Flow rate range	0.00166-65mL/min	Motor phase voltage	3.3V
Motor type	57 stepper motor	Motor phase current	1.7A
Motor phase number	2	Working environment	0-40℃, 80%RH

Multichannel Pump Head

MD1

(8 rollers)

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.

Model Number | MD1

Typical Application | Support analytical instruments

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.

Experimental conditions:standard atmospheric pressure, room temperature at 20°C,the liquid is pure water, no pressure, no suction and lift.
Note: Actually, it is affected by many factors such as transmission medium, inlet and outlet pressure, hose material and error, working environment, etc. This data is for reference only.

Technical Specifications

Pump Head	Channel Number	Speed	Tubing	Flow Rate (0.1-300rpm)	Rollers Number	Rollers Material	Tubing Maximum Pressure (Mpa)	
MD1	1	0.1-200 (rpm)	1×1	0.007-14 mL/min (each channel)	8 rollers	POM	Intermittent 0.1	Continuous 0.1
			2×1	0.0244-48.8mL/min (each channel)				
			2.79×0.86	0.0356-71.2mL/min (each channel)				

Multichannel Pump Head

MT12

(10 rollers)

Pressure tube gap adjustment mechanism

Product Introduction

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

Model Number

MT12

Typical Application

Support chemistry analytical instruments

Dimension Drawing(Unit: mm)

Experimental conditions:standard atmospheric pressure, room temperature at 20°C,the liquid is pure water, no pressure, no suction and lift.
Note: Actually, it is affected by many factors such as transmission medium, inlet and outlet pressure, hose material and error, working environment, etc. This data is for reference only.

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

Patent No: ZL201630636794.0; ZL201621426687.6

Easy Load Pump Head

New generation easy load type pump head

(3/6 rollers)

EasyPump Series

Typical Application

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

Product Introduction

- Brand new design, give you a brand new experience! Not only the appearance is exquisite, but the functional design is more practical.
- The unique tube clamp linkage mechanism, with the opening process of the upper pressure block, the tube clamp automatically lifts, the user can easily install the tube.As the upper pressure block is closed, the tube clamp is automatically reset to fix the tube. At the same time, “theTrigger lever assist mechanism” assists the user in pressing the upper pressure block.
- The rubbing wheel mechanism can adjust the position of the lower tube clamp to fix different materials and diameters tube.
- Users can choose single or dual-channel pump heads. You can also choose a pump head with a fixed or adjustable tube pressure gap according to your requirements. The shell material of the pump head including two types: resistant to organic solvents and intolerant to organic solvents.

Product Features

- The tube clamp linkage mechanism makes it more convenient to install the tube.
- The rubbing wheel adjustment mechanism can easily fix different size tube.
- The lever assist mechanism makes the operation more labor-saving.
- The tube pressure gap fine-tuning mechanism can adjust the pressure, extend the life of the tube and improve the dispensing accuracy.
- Tube tubes can be installed at the same time to realize single pump head with two channels.

Dimension Drawing(Unit: mm)

Tubing Installation Procedure

1.Turn the knob anticlockwise 180°, open the upper block.

2. Put the tube between rollers and upper block, tighten up the tubing lightly.

3. Turn the knob clockwise 180°, put the upper block back to original position, fasten the tube.

4. Rubbing wheel adjustment.

Experimental conditions:standard atmospheric pressure, room temperature at 20°C,the liquid is pure water, no pressure, no suction and lift.
Note: Actually, it is affected by many factors such as transmission medium, inlet and outlet pressure, hose material and error, working environment, etc. This data is for reference only.

Pump Head	Tubing	ID×Wall thickness(mm)	mL / r	Flow Rate(mL/min) (0.1–600rpm)	Tubing Max.Pressure(Mpa)		Weight(kg)
					Intermittent	Continuous	
EasyPump (Acceptable tubing of 1.6 mm wall thickness)	13#	0.8×1.6	0.053	0.0053-32	0.27	0.17	0.6
	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	0.933	0.093-560			
	25#	4.8×1.6	1.967	0.197-1180	0.24	0.14	
	17#	6.4×1.6	3.333	0.333-2000	0.14	0.10	
	18#	7.9×1.6	4.3	0.430-2580	0.10	0.07	
EasyPump (Acceptable tubing of 2.4 mm wall thickness)	15#	4.8×2.4	1.8	0.180-1080	0.27	0.17	
	24#	6.4×2.4	2.733	0.273-1640			
	35#	7.9×2.4	3.833	0.383-2300	0.24	0.14	
	36#	9.6×2.4	5.167	0.517-3100			

Easy Load Pump Head

HandyPump

(3 rollers)

Product Features

- Beautiful appearance,compact size
- Flow rate range: 0.0033-365.69mL/min.
- Front knob to open the pump head, save space.
- Automatic tubing retention makes tube loading easy and quick.
- Single and dual-channel head available.
- 5 different sizes tubing to meet different flow rate requirements.

Single channel
HandyPump01

Dual channel
HandyPump02

Dimension Drawing(Unit: mm)

Patent No: ZL201830317577.4; ZL201820955653.9

Tubing Installation Procedure

A. Turn the knob anticlockwise 180°, open the upper block.

B. Put the tube between rollers and upper block, tighten up the tubing lightly.

C. Turn the knob clockwise 180°, put the upper block back to original position, fasten the tube.

Pump Head	Channel number	Tubing	ID×Wall thickness(mm)	mL / r	Speed(rpm)	Flow Rate(mL/min)	Weight(kg)
HandyPump01	Single channel	13#	0.8×1.6	0.033	0.1~300	0.0033~10.03	0.224
		14#	1.6×1.6	0.187		0.0187~56.09	
		19#	2.4×1.6	0.371		0.0371~111.17	
		16#	3.1×1.6	0.636		0.0636~190.76	
		25#	4.8×1.6	1.219		0.1219~365.69	
HandyPump02	Dual channel	13#	0.8×1.6	0.033	0.1~300	0.0033~10.03	0.224
		14#	1.6×1.6	0.187		0.0187~56.09	
		19#	2.4×1.6	0.371		0.0371~111.17	
		16#	3.1×1.6	0.636		0.0636~190.76	

OEM Product

Easy Load Pump Head Series HandyPump01 HandyPump02

OEM-HYB001(42-60 stepper motor)

Dimension Drawing(Unit: mm)

OEM-HYB001 Technical Specifications			
Speed range	0.1-300rpm	Motor step angle	1.8°
Flow rate range	0.0033-365.69mL/min	Motor phase voltage	3.6V
Motor type	42 stepper motor	Motor phase current	1.7A
Motor phase number	2	Working environment	0-40℃, 80%RH

OEM-HYB101(57stepper motor)

Dimension Drawing(Unit: mm)

OEM-HYB101 Technical Specifications

Speed range	0.1-300rpm	Motor step angle	1.8°
Flow rate range	0.0033-365.69mL/min	Motor phase voltage	3.3V
Motor type	57stepper motor	Motor phase current	3.0A
Motor phase number	2	Working environment	0-40℃, 80%RH

OEM-HYB006(stepper motor)

Dimension Drawing(Unit: mm)

Model No.	OEM-HYB003/004/005
Speed range	0.1-300 rpm
Flow rate range	0.0033-365.69mL/min
Outer control	Passive switch signal control start/stop and direction
Speed control	OEM-HYB003: External potentiometer speed control 4-20mA OEM-HYB004: External potentiometer speed control 0-5V OEM-HYB005: External potentiometer speed control 0-10V
Motor type	42 stepper motor
Power supply	DC 24V, ≥48W
Working environment	0-40℃, 80%RH

OEM-HYB006/007 Technical Specifications

Speed range	0.1-300 rpm
Flow rate range	0.0033-365.69mL/min
Speed control	External input pulse frequency speed control
Subdivision settings	1/16(recommend), 1, 1/2, 1/4, 1/8, 1/32, 1/64, 1/128
Motor type	42 stepper motor
Power supply	DC 24V, ≥48W
Working environment	0-40℃, 80%RH

OEM-HYB009 Technical Specifications

Speed range	0.1-300 rpm
Flow rate range	0.0024-190mL/min
Speed control	Preset speed or serial port control
Subdivision settings	1/16
Motor type	42 stepper motor
Power supply	DC 24V, ≥48W
Working environment	0-40℃, 80%RH

OEM-HYB010 Technical Specifications

Speed range	0.1-300 rpm
Flow rate range	0.0024-190mL/min
Speed control	Adjust speed by internal potentiometer
Subdivision settings	1/16
Motor type	42 stepper motor
Power supply	DC 24V, ≥48W
Working environment	0-40℃, 80%RH

OEM-HYXZ Series(DC planetary gear motor)

Dimension Drawing(Unit: mm)

OEM-Z series Technical Specifications

Model No.	Motor type	Power supply	Power(W)	Speed(rpm)	Speed error	Working environment
OEM-HYXZ001	37 DC planetary gear motor	DC24V/4A	30	100	≤±10%	0-40℃, 80%RH
OEM-HYXZ002				200		
OEM-HYXZ003				300		
OEM-HYXZ101	37 DC planetary gear motor	DC12V/5A		100		
OEM-HYXZ102				200		
OEM-HYXZ103				300		

Easy Load Pump Head

AUD-I-HandyPump

Product Introduction

AUD-I/HandyPump with compact and embedded design, can be used to automatically openand close the upper pressure block on the pump head. The device can open the upper pressure block on pump head to release the tubing when the pump stops running, extending theservice life of the tubing. The tubing clamp can be fixedly installed, to adapt the upper block automatic open function. It is suitable for supporting various instruments.

Product Features

1. The upper block open automatically when the pump head stop running, extend thetubing service life.
2. The upper block close automatically before the pump start working.
3. Open and close upper block time: 5 seconds.
4. Can read open/close status, convenient to support equipment.

Motor Specification

Step angle	1.8°
Phase	2
Phase current	1. 7A
Phase voltage	3.6V
Speed range	0.1 -300rpm
Power supply	DC 24V, ⩾48W
Logic input voltage	DC5V
Working environment	0-40℃, 80%RH

Dimension Drawing(Unit: mm)

Easy Load Pump Head

YZ1515x,YZ2515x

(3/6 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.

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

Experimental conditions:standard atmospheric pressure, room temperature at 20°C,the liquid is pure water, no pressure, no suction and lift.
Note: Actually, it is affected by many factors such as transmission medium, inlet and outlet pressure, hose material and error, working environment, etc. This data is for reference only.

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	0.40 (3 rollers)	0.46 (3 rollers)
	24#	6.4×2.4	2.9	0.29~1740				

OEM Product

Easy Load Pump Head YZ1515x YZ2515x

OEM-B130/YZ

Dimension Drawing(Unit: mm)

OEM-B130 Technical Specifications			
Speed range	0.1-350 rpm	Motor step angle	1.8°
Flow rate range	0.007-1330mL/min	Motor phase voltage	3.3V
Motor type	57stepper motor	Motor phase current	3.0A
Motor phase number	2	Working environment	0-40℃, 80%RH

OEM-B19/YZ

Dimension Drawing(Unit: mm)

OEM-B19 Technical Specifications			
Speed range	0.1-350 rpm	Motor step angle	1.8°
Flow rate range	0.007-1330mL/min	Motor phase voltage	3.3V
Motor type	57stepper motor	Motor phase current	3.0A
Motor phase number	2	Working environment	0-40℃, 80%RH

OEM-B242/B243/B244/YZ

Dimension Drawing(Unit: mm)

OEM-B242/B243/B244 Technical Specifications			
Motor type	Stepper motor	Function type	OEM-B242, Flow rate type
Display	Industrial grade 4.3" LCD color display		OEM-B243, Dispensing type
Control method	Touch screen and Mechanical keypad		OEM-B244, Multichannel filling type
Speed range	≤600rpm	Working environment	0-40℃, 80%RH
Max.flow rate	2280mL/min		

OEM-Z109/YZ(DC motor)

Dimension Drawing(Unit: mm)

OEM-Z109 Technical Specifications

Model No.	Motor type	Power supply	Power(W)	Speed(rpm)	Speed error	Working environment
OEM-Z109	DC geared motor	DC12V/2A	15	600	≤±10%	0-40℃, 80%RH

OEM-J013/YZ(AC motor)

Dimension Drawing(Unit: mm)

OEM-J013 Technical Specifications

Model No.	Motor type	Power supply	Power(W)	Speed(rpm)	Speed error	Working environment
OEM-J013	AC geared motor	AC220V(standard), AC110V(optional)	15	417	≤±10%	0-40℃, 80%RH

OEM-JT03/YZ(AC speed motor)

Dimension Drawing(Unit: mm)

OEM-JT03 Technical Specifications

Model No.	Motor type	Power supply	Power(W)	Speed(rpm)	Speed error	Working environment
OEM-JT03	AC speed motor	AC220V(standard), AC110V(optional)	15	30-300	≤±10%	0-40℃, 80%RH

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.

YZ35 Pump Head Tubing Holder Advantages

01/ Fix the tubing; lower the tubing shaking duringworking; improve the stability and accuracy of flow rate.

02/ Prevent the tubing wear, extend the tubing lifetime.

Model Number

| YZ35-PPS, YZ35(Aluminum Alloy)

Dimension Drawing(Unit: mm)

YZ35-PPS

YZ35-Aluminum Alloy

Experimental conditions:standard atmospheric pressure, room temperature at 20°C,the liquid is pure water, no pressure, no suction and lift.
Note: Actually, it is affected by many factors such as transmission medium, inlet and outlet pressure, hose material and error, working environment, etc. This data is for reference only.

Technical Specifications

Pump Head	Tubing	ID×Wall Thickness(mm)	mL / r	Flow Rate(mL/min) (0–600rpm)	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	0.2	4.36	1.50
	73#	9.6×3.3	12.3	1.23~7400				
	82#	12.7×3.3	20	2~12000	0.14	0.1		

OEM Product

Easy Load Pump Head YZ35

OEM-Z501/YZ35

Dimension Drawing(Unit: mm)

OEM-Z501 Technical Specifications

Model No.	Motor type	Power supply	Power(W)	Speed(rpm)	Speed error	Working environment
OEM-Z501	DC geared motor	DC24V/16A	250	600	≤±10%	0-40℃, 80%RH

OEM-J401/YZ35

Dimension Drawing(Unit: mm)

OEM-J401 Technical Specifications

Model No.	Motor type	Power supply	Power(W)	Speed(rpm)	Speed error	Working environment
OEM-J401	AC geared motor	AC220V(standard), AC110V(optional)	120	450	≤±10%	0-40℃, 80%RH

OEM-JT501/YZ35

Dimension Drawing(Unit: mm)

OEM-JT501 Technical Specifications

Model No.	Motor type	Power supply	Power(W)	Speed(rpm)	Speed error	Working environment
OEM-JT501	AC speed motor	AC220V(standard), AC110V(optional)	200	45-450	≤±10%	0-40℃, 80%RH

Standard Pump Head

SN25,SN15-14,SN15-16

(3 rollers)

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

Dimension 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.

Experimental conditions:standard atmospheric pressure, room temperature at 20°C,the liquid is pure water, no pressure, no suction and lift.
Note: Actually, it is affected by many factors such as transmission medium, inlet and outlet pressure, hose material and error, working environment, etc. This data is for reference only.

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

Standard Pump Head Series

OEM-B130/SN Series

Dimension Drawing(Unit: mm)

Model No.	OEM-B130
Speed range	0.1-350 rpm
Flow rate range	0.024-875mL/min
Motor type	57 stepper motor
Motor phase number	2
Motor step angle	1.8°
Motor phase voltage	3.3V
Motor phase current	3.0A
Working environment	0-40℃, 80%RH

OEM-B19/SN Series

Dimension Drawing(Unit: mm)

Model No.	OEM-B19
Speed range	0.1-350 rpm
Flow rate range	0.024-875mL/min
Motor type	57 stepper motor
Motor phase number	2
Motor step angle	1.8°
Motor phase voltage	3.3V
Motor phase current	3.0A
Working environment	0-40℃, 80%RH

OEM-B11/SN Series

Dimension Drawing(Unit: mm)

Model No.	OEM-B11
Speed range	0.1-350 rpm
Flow rate range	0.024-875mL/min
Motor type	57 stepper motor
Motor phase number	2
Motor step angle	1.8°
Motor phase voltage	3.3V
Motor phase current	3.0A
Working environment	0-40℃, 80%RH

OEM-Z109 (DC motor) /SN Series

Dimension Drawing(Unit: mm)

Model No.	OEM-Z109
Mix.flow rate	1500mL/min
Motor type	DC geared motor
Voltage	DC12V/2A
Power	15W
Speed	600rpm
Speed error	≤±10%
Working environment	0-40℃, 80%RH

OEM-JT03 (AC motor) /SN Series

Dimension Drawing(Unit: mm)

Model No.	OEM-JT03
Flow rate	7.2-750mL/min
Motor type	AC speed motor
Voltage	AC220V(standard) DC110V(optional)
Power	15W
Speed	600rpm
Speed error	≤±10%
Working environment	0-40℃, 80%RH

Intelligent, just for easier.

Fast Load Pump Head

DZ25-3L,DZ25-6L

(3 rollers)

Product Introduction

Easy operation, change tube rapidly. The house material is PPS (polyphenylene sulfite). 304 stainless steel rollers. DZ25 pump head use 2.4mm wall thickness tube, the flow rate range is 0.211-6000mL/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 clamp, meet hygiene requirement.

Model Number

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

Tubing Installation Procedure

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

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

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

Dimension Drawing(Unit: mm)

DZ25-6L Dimension

DZ25-3L Dimension

Tubing Clamp

DZ25-6L: the tubing length is 125mm between both tubing clamps.
DZ25-3L: the tubing length is 90mm between both tubing clamps.

Experimental conditions:standard atmospheric pressure, room temperature at 20°C,the liquid is pure water, no pressure, no suction and lift.
Note: Actually, it is affected by many factors such as transmission medium, inlet and outlet pressure, hose material and error, working environment, etc. This data is for reference only.

Technical Specifications

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/PPS	PP	15#	4.8×2.4(mm)	0.3~1800	1.86/0.86
			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	PP	15#	4.8×2.4(mm)	0.211~1264	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	

OEM Product

Fast Load Pump Head DZ25-3L(PPS)

OEM-B501/DZ25-3L(servo motor)

Dimension Drawing(Unit: mm)

OEM-B19 Technical Specifications			
Speed range	0.1-600 rpm	External control start and stop	Switch signal (default 5V)
Speed control	Digital knob(Optional)	External control speed	0-5V, 4-20mA(standard), 0-10V(optional)
Display	OLED(Optional)	Communication interface	RS485(Modbus protocol, RTU mode)
Control method	Toggle switch control start and stop, direction (optional)	Motor type	Servo motor
		Voltage	DC24V/1A(mainboard) DC36V/3A(driver)

OEM-Z402/DZ25-3L(DC motor)

Dimension Drawing(Unit: mm)

OEM-Z402 Technical Specifications						
Model No.	Motor type	Power supply	Power(W)	Speed(rpm)	Speed error	Working environment
OEM-Z402	DC geared motor	DC24V/2.5A	40	600	≤±10%	0-40℃, 80%RH

OEM-JT12/DZ25-3L(AC speed motor)

Dimension Drawing(Unit: mm)

OEM-JT12 Technical Specifications						
Model No.	Motor type	Power supply	Power(W)	Speed(rpm)	Speed error	Working environment
OEM-JT12	AC speed motor	AC220V(standard), AC110V(optional)	60	43-430	≤±10%	0-40℃, 80%RH

OEM Product

Fast Load Pump Head DZ25-6L(PPS)

OEM-J402/DZ25-6L(AC motor)

Dimension Drawing(Unit: mm)

Number of pump heads	L/mm
1	59.5
2	119

OEM-J402 Technical Specifications

Model No.	Motor type	Power supply	Power(W)	Speed(rpm)	Speed error	Working environment
OEM-J402	AC motor	AC220V(standard), AC110V(optional)	120	450	≤±10%	0-40℃, 80%RH

OEM-JT407/DZ25-6L(AC speed motor)

Dimension Drawing(Unit: mm)

OEM-JT407 Technical Specifications

Model No.	Motor type	Power supply	Power(W)	Speed(rpm)	Speed error	Working environment
OEM-JT407	AC motor	AC220V(standard), AC110V(optional)	120	45-450	≤±10%	0-40℃, 80%RH

Low Pulsation Pump Head

DY15,DY25

(2*6 rollers)

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 125mm between two cartridges

Tubing Installation Procedure

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

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

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

Dimension Drawing(Unit: mm)

Pulsation Reduction Schematic Diagram

Experimental conditions:standard atmospheric pressure, room temperature at 20°C,the liquid is pure water, no pressure, no suction and lift.
Note: Actually, it is affected by many factors such as transmission medium, inlet and outlet pressure, hose material and error, working environment, etc. This data is for reference only.

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	
			24#	6.4×2.4(mm)	0.76~2670	
			35#	7.9×2.4(mm)	1~3600	
			36#	9.6×2.4(mm)	1.24~4340	

OEM Product

DC Motor OEM

OEM-Z Series							
Model No.	Pump head	Motor type	Power supply	Power(W)	Speed(rpm)	Speed error	Working environment
OEM-Z109	YZ1515x, YZ2515x, MC Series SN Series	Φ60 DC motor	DC12V/2A	15	600	±10%	0-40℃, 80%RH
OEM-Z205		Φ70DC motor	DC12V/3.5A	25	300		
OEM-Z208		Φ70 DC motor	DC12V/3.5A	25	600		
OEM-Z216		Φ70 DC motor	DC12V/2A	25	450		
OEM-Z218		Φ70 DC motor	DC12V/2A	25	600		
OEM-Z402	DZ25-3L	Φ80 DC motor	DC12V/2.5A	40	600		
OEM-Z501	YZ35	Φ90 DC motor	DC12V/16A	250	600		
OEM-Z502		Φ90 DC motor		250	600		
OEM-Z503		Φ90 DC motor		250	240		
OEM-Z506	DZ25-6L	Φ90 DC motor	DC12V/16A	250	350		
OEM-Z504		Φ90 DC motor		120	600		
OEM-Z505		Φ90 DC motor		120	460		

AC Motor OEM

OEM-J Series							
Model No.	Pump head	Motor type	Power supply	Power(W)	Speed(rpm)	Speed error	Working environment
OEM-J013	YZ1515x, YZ2515x, MC Series SN Series	Φ70 AC motor	AC220V(standard), AC110V(optional)	15	417	±10%	0-40℃, 80%RH
OEM-J022		Φ90 AC motor		60	430		
OEM-J024		3 phase AC motor		400	430		
OEM-J026		3 phase AC motor		400	430		
OEM-J027		3 phase AC motor		400	70		
OEM-J402	DZ25-6L	Φ90 AC motor		120	450		
OEM-J401	YZ35	Φ90 AC motor		120	450		

OEM-JT Series							
Model No.	Pump head	Motor type	Power supply	Power(W)	Speed(rpm)	Speed error	Working environment
OEM-JT03	YZ1515x, YZ2515x, MC Series SN Series	Φ70 AC motor	AC220V(standard), AC110V(optional)	15	30-300	±10%	0-40℃, 80%RH
OEM-JT08		Φ90 AC motor		25	43-430		
OEM-JT12		Φ90 AC motor		60	43-430		
OEM-JT402		Φ90 AC motor		60	45-450		
OEM-JT406		Φ90 AC motor		120	45-450		
OEM-JT407	DZ25-6L	Φ90 AC motor		120	45-450		
OEM-JT501	YZ35	Φ104 AC motor		200	45-450		
OEM-JT502		Φ104 AC motor		200	45-450		

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：0.8–1mm	<65
SN Series	14#, 16#, 24#	<1500
DZ25–3L	15#, 24#, 35#, 36#	<3600
DZ25–6L	15#, 24#, 35#, 36#	<6000
YZ35	26#, 73#, 82#	<12000

OEM Product

Integrated Drive Module(42 stepper motor)

Technical Specifications			
Suitable motor	35 stepper motor, 42-40 and 42-60 stepper motor	Output motor current	0.5-1.6A
		Power supply	DC24V, ⩾48W
Speed range	0.1-300rpm	Working environment	0-40℃, 80%RH

Product	Model No.	Functions	Wiring Diagram
M42/0-5V,0-10V,4-20mA	M42/0-5V	Start/stop control: Passive switch signal control start/stop Speed control: External input analog signal 0-5V	
	M42/0-10V	Start/stop control: Passive switch signal control start/stop Speed control: External input analog signal 0-10V	
	M42/4-20mA	Start/stop control: Passive switch signal control start/stop Speed control: External input analog signal 4-20mA	
M42/USB	M42USB	Speed control: Preset speed or adjust the speed through USBcommunication port. Subdivision setting: 1/16 Built-in EEPROM can save the setting speed.	
M42/P	M42P	Speed control: External input pulse frequency Subdivision setting: 1/16(recommend), 1, 1/2, 1/4, 1/8, 1/32 Logic input voltage: 3.3V-5V or 12V-24V	

OEM Product

Product	Model No.	Functions	Wiring Diagram
 M42/RP M42RP-A	M42RP	Speed control: Built-in potentiometer control speed Subdivision setting: 1/16	
	M42RP-A	Speed control: External potentiometer control speed Subdivision setting: 1/16	
 M42/RS232	M42/RS232	Speed control: RS232(Modbus protocol) Subdivision setting: 1/16 Built-in EEPROM can save the setting speed	

OEM Product

Product	Model No.	Functions	Wiring Diagram
M42/RS485	M42/RS485	Speed control: RS485(Modbus protocol) Subdivision setting: 1/16 Built-in EEPROM can save the setting speed	

Integrated Drive Module(57 stepper motor)

Technical Specifications			
Suitable motor	57 stepper motor	Output motor current	2-4.5A
		Power supply	DC24V, ⩾150W
Speed range	0.1-600rpm	Working environment	0-40℃, 80%RH

Product	Model No.	Functions	Wiring Diagram
M57P	M57P	Speed control: External input pulse frequency speed control Subdivision setting: 1/16 (recommend), 1, 1/2, 1/4, 1/8, 1/32, 1/64, 1/128 connection: 12V~24V (M57P) Common anode connection: 3.3V~5V or 12V~24V (M57PY)	

Control Board For OEM Product

PD03 Main board technical specification	
Speed range	0.1–350 rpm
Speed control	Pulse frequency speed control
Logic input voltage	5V, 12V, 24V(default 5V)
Multiple segments	1/16(recommend), 1, 1/2, 1/4, 1/8, 1/32 1/64, 1/128
Input voltage	DC 24V
Power	<60W
Dimension (L*W)	98.48×82.68 mm

PMD07 Main board technical specification	
Speed range	0.1–350 rpm
Display(optional)	0.96" OLED screen
Speed control	Preset speed or manual control
Control mode	External passive signal level (normally closed or open) mode; control the start/stop and direction
Input voltage	DC 24V
Power	<60W
Dimension (L*W)	98.48×82.68 mm

PMD17 Mainboard technical specification	
Speed range	0.1-350 rpm(optional)
Flow rate range	0.000067-1330mL/min
Speed resolution	0.1rpm
Display	0.96" OLED screen(optional)
Speed control	Preset speed or membrane keypad speed control (optional)
Control mode	Digital knob and toggle switch
External control	Start/stop;Active switch signal: 5V (standard)
Communication interface	RS485 support Modbus protocol (RTU mode)
External control speed	0-5V, 4-20mA(standard), 0-10V (optional)
Motor type	57 stepper motor
Input voltage	DC 24V
Power	<60W

PM29 Mainboard technical specification	
Speed range	0.1-600rpm(optional)
Speed resolution	0.1rpm
Display(optional)	OLED screen(optional)
Control mode	Membrane keypad/Toggle switch
Speed control(optional)	Preset speed or membrane keypad speed control (optional)
External control speed	0-5V, 4-20mA(standard), 0-10V (optional)
Communication interface	RS485 support Modbus protocol (RTU mode)
External control	Start/stop,change direction signal ;Active switch signal: 5V (standard)
Motor type	57 stepper motor
Voltage	DC24V, ⩾48W
Working environment	0-40℃, 80%RH

Peristaltic Pump Accessories

A Filling Nozzle

Name	Material	Picture
Closing filling nozzle	SS316	
Reducer closing filling nozzle	SS316	
Flat filling nozzle	SS304/316	
Flat filling nozzle PTEF	PTFE	

B One Way Checkvalve

Avoid liquid drop off after filling and transferring.

C 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#

D Handling Dispenser

Filling nozzle and tubing cap			
Filling nozzle size	13#	14#	19#
Inner diameter	3mm	3.5mm	4.5mm
Picture			
Filling nozzle size	16#	15#/25#	17#/24#
Inner diameter	5mm	7mm	9mm
Picture			
Tubing size	17#	18#	Plum blossom cap
Inner diameter	9.6mm	11.1mm	
Picture			

Based on ergonomics design, elegant appearance, grip feeling comfortable, easy operation. Connect to peristaltic pump external control interface, with start/stop and full speed control, can realize transferring and dispensing function. Power supply and working indicator, show the dispenser working status. With hanging hole, can be hang up when do not use.

E Foot Pedal Switch

water proof

Control the pump start/stop with foot pedal switch.

F Tube Connector

a Straight tube connector

b "Y" tube connector

c Tee tube connector

d Reducer tube connector

e "L" tube connector

f Flexible/Hard tube connector

G PH Controller

Work with peristaltic pump, can control the liquid PH value, add acid or alkali automatically.

Function:

1. Liquid: Acid–Base Solutions
2. PH value : 0–14PH
3. Set up target PH value
4. Add acid or alkali liquid automaticall
5. Control: RS485 , 4–20mA
6. Power supply: DC24V (AC220V for option)
7. Suitable temperature: 0–60℃

H 5V Sensor

When applied in the dispensing line, it can detect weather 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.

I Benchtop Tubing Cutter

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

J Support Stand

The multiple filling stand is suitable for more than 2 channels filling. It can hold 2–8 filling nozzles. We can customize the suiatble one according to your request.

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 ℃.

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			
	inch	1/16							3/32			
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
	inch	1/32	1/16	3/32	1/8	3/16	1/4	5/16	3/16	1/4	5/16	3/8
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	
	inch	1/8			1/4		3/16	
Inside diameter	mm	6.4	9.6	12.7	9.5	19	12.7	25.4
	inch	1/4	3/8	1/2	3/8	3/14	1/2	1
Maximum pressure (Mpa)	Continuous	0.2			0.25			
	Intermittent	0.27			0.3			

Peristaltic Pump Tubing

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

	A Tygon3350	B Tygon E-3603	C Norprene Chemical	D PharMed	E 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.	Elcellent 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 fluidexposure; 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℃ (250°F). 1KG/cm³ (15psi) for 30 minutes (tubing will appear milky); air dry at max 66℃ (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 ultraviolet (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. lear 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/cm²), 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.

SHENCHEN

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