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Single, double channel laboratory syringe pump series

This series syringe pumps can assembly 1 or 2 syringes, precision can reach $\pm 0.35\%$. Good performance, high precision and high accuracy. Durable mechanical transmission design, long service life and good reliability. Screw fixation using special high precision aviation bearing alternatives to traditional copper, longer service life and high precision support for multiple working mode. High resolution color touch screen LCD, simple and easy to set parameters, status display intuitive and clear. With adjustable protection agencies and alarm mechanism. The RS-485 communication, support the MODBUS protocol, easy to connect to other devices. All stainless steel shell, easy to clean and maintain.

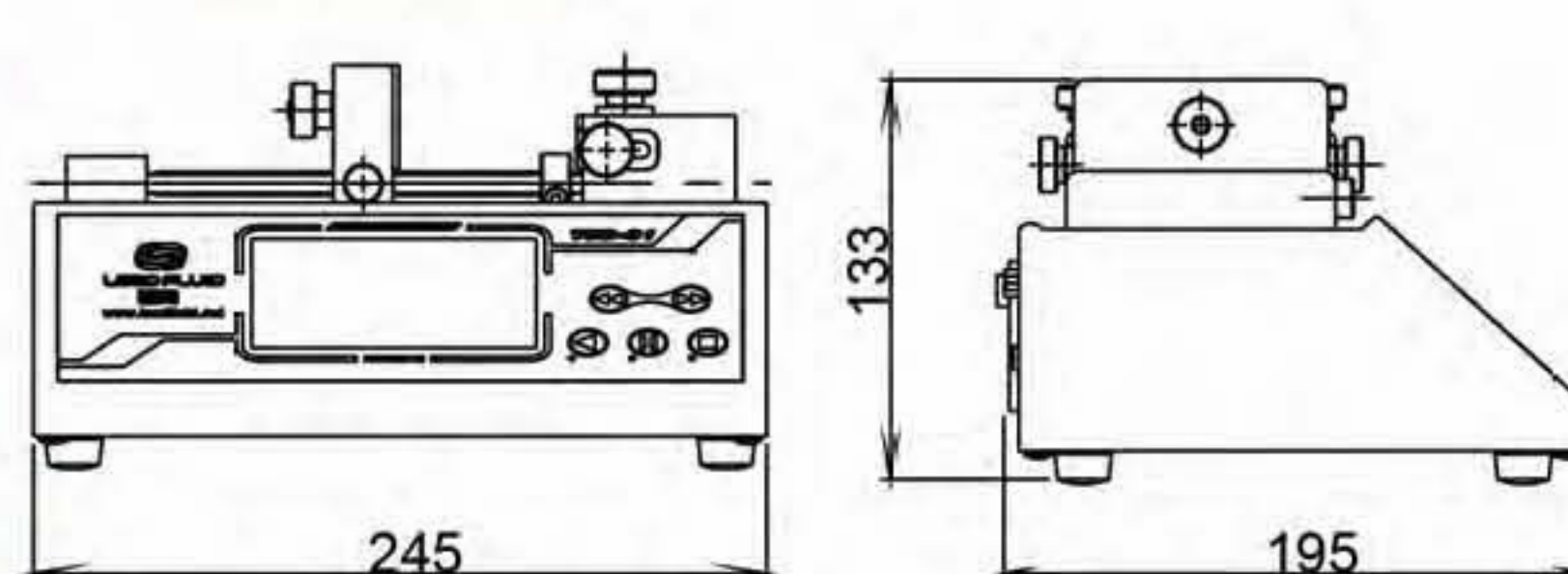


Display panel and operation keypads



Appearance size

(TYD01-01)



The parameters

model	TYD01-01	TYD02-01	TYD03-01	TYD01-02	TYD02-02
The parameters					
Work mode	infusion, withdraw, infusion/withdraw, withdraw/infusion, continuous mode;				
Channel number	1	1	1	2	2
Stroke of pump pump	110mm	140mm	110mm	110mm	140mm
pusher advance per microstep	0.156um/ustep	0.156um/ustep	0.03125um/ustep	0.156um/ustep	0.156um/ustep
linear speed	1um/min-150mm/min	1um/min-150mm/min	0.2um/min-30mm/min	1um/min-150mm/min	1um/min-150mm/min
Linear resolution	1um/min	1um/min	0.2um/min	1um/min	1um/min
Linear travel accuracy	error $\leq \pm 0.35\%$ ($> 30\%$ of pump stroke);				
maximum rated Linear force	$> 16\text{kgf}$	$> 20\text{kgf}$	$> 16\text{kgf}$	$> 16\text{kgf}$	$> 20\text{kgf}$
Thrust regulation	1-100% arbitrary adjustable.				
Syringe size	10uL-60mL	10uL-140mL	10uL-60mL	10uL-60mL	10uL-140mL
Syringe selection	built-in main manufacturers, the main model syringe to choose; Can use custom syringe, direct input syringe size&diameter;				
Flow calibration	through the calibration procedure to obtain more accurate fluid volume;				
Display	4.3-inch color LCD, With screen display and transfusion volume, quantity of liquid, flow, operation direction, syringe specification, etc.; Animation display operation status;				
Operation mode	touch screen + button;				
Power-off memory	storing the running parameters automatically;				
Other features	pause and stop; The sound tip; The lock parameters; Fast forward and retreat quickly;				
State signal output	1 road stop state, 1 state road direction;				
Control signal input	1 road controls the start/stop, 1 road controls the direction;				
Communication interface	RS485, MODBUS protocol;				
Dimension (LXWXH)	245x195x133mm	290x205x141mm	245x195x133mm	245x195x133mm	290x205x141mm
Weight	3.2kg	4.4kg	3.2kg	3.2kg	4.4kg
Applicable power	AC100-240V/20W				
working temperature	5-40°C				
Relative humidity	$< 80\%$				

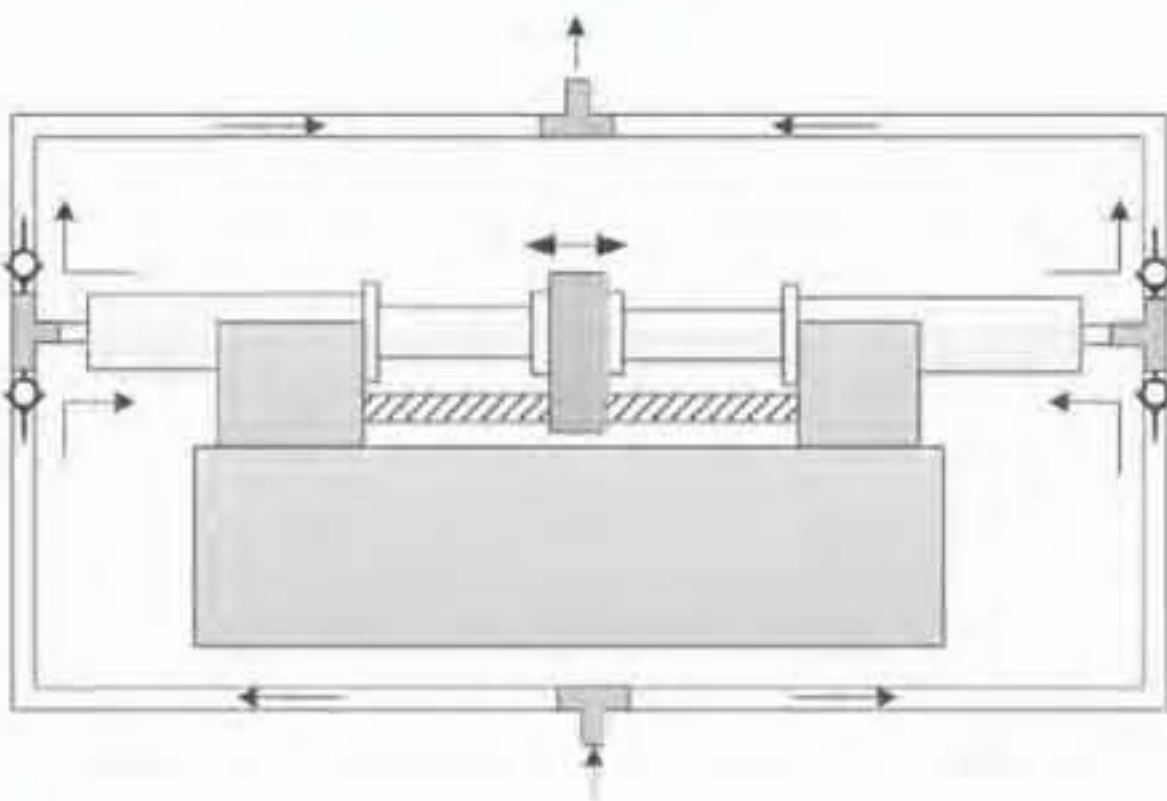
Two-way push-pull syringe pump TSD01-01

Function and Features:

- It can assemble two syringe, through several tube-line connection, realize continuous transmission liquid.
- A variety of working mode choice.
- Color touch screen, LCD display, convenient and quick operation.
- Support screen lock, key mute operation.
- With lights, buttons, clearly working state.
- Support a variety of standard syringe, customize syringe.
- High precision control.
- Syringe protection and traffic jam alarm.
- RS485 communication, support the MODBUS protocol.
- External signal control start-stop and direction.
- A wide range of power input.
- Full metal shell.



Principle diagram



Multi-channel laboratory syringe pumps



It can assembly four/ten syringes,other quantity can be customized. Good performance, high precision and high accuracy. Durable mechanical transmission design, long life and good reliability. Screw fixation using special high precision aviation bearing alternatives to traditional copper, longer service life and high precision. Support for multiple working mode. High resolution color touch screen LCD, simple and easy to set parameters, status display intuitive and clear. With adjustable protection agencies and alarm mechanism. The RS-485 communication, support the MODBUS protocol, easy to connect to other devices. All stainless steel shell, easy to clean and maintain.

The parameters

model	TYD02-04	TYD02-10
The parameters		
Work mode	infusion, withdraw, infusion/withdraw, withdraw/infusion, continuous mode.	
Channel number	4	10
Stroke of pump	140mm	
pusher advance per microstep	0.156um/ustep	
Linear resolution	1um/min – 150mm/min	
Linear travel accuracy	1um/min	
linear speed	Error<± 0.35% (> 30% of pump stroke)	
maximum rated Linear force	>20kgf	
Thrust regulation	1-100% arbitrary adjustable.	
Syringe size	10uL-10mL	



Laboratory syringe pump TFD01-01

TFD01-01 Syringe pump is one channel multi mode micro syringe pump. Its controller and the execution unit for fission structure, execution unit is equipped with a mounting bracket, convenient use cooperatively with microscopic operating equipment, stereotaxic instrument and other fixtures , execution unit can be used with 5 ul - 1000 ul microliter syringe, high precision control, suitable for all kinds of biological experiments. High resolution color LCD, touch screen is convenient fast set parameters, multiple light is clear and confirmed its working status, support infusion withdrawal and other five working modes. Built-in RS - 485 communication, support the Modbus protocol, full metal shell, wide range power input, adapt to various occasions.

TFD01-01 suitable for syringe size 5ul-1ml,
Linear speed: 0.635um/min-95.25mm/min

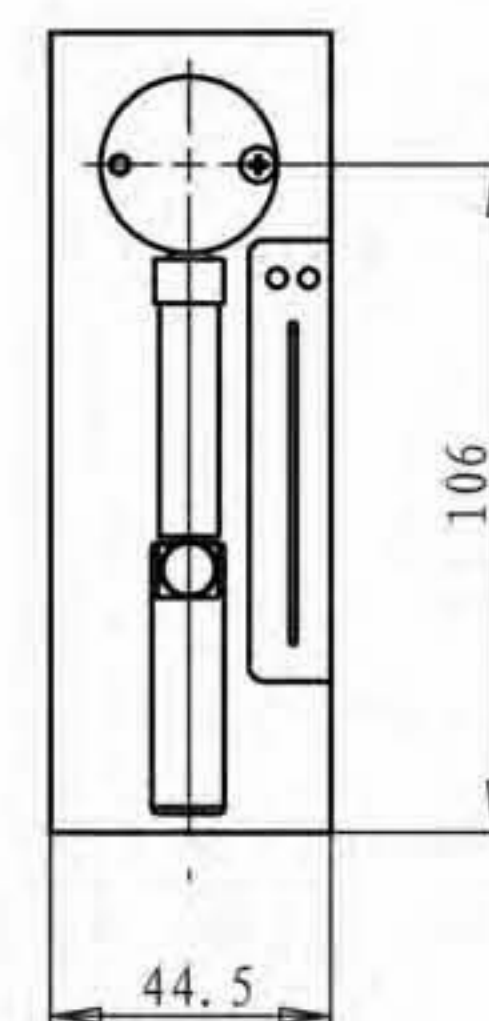
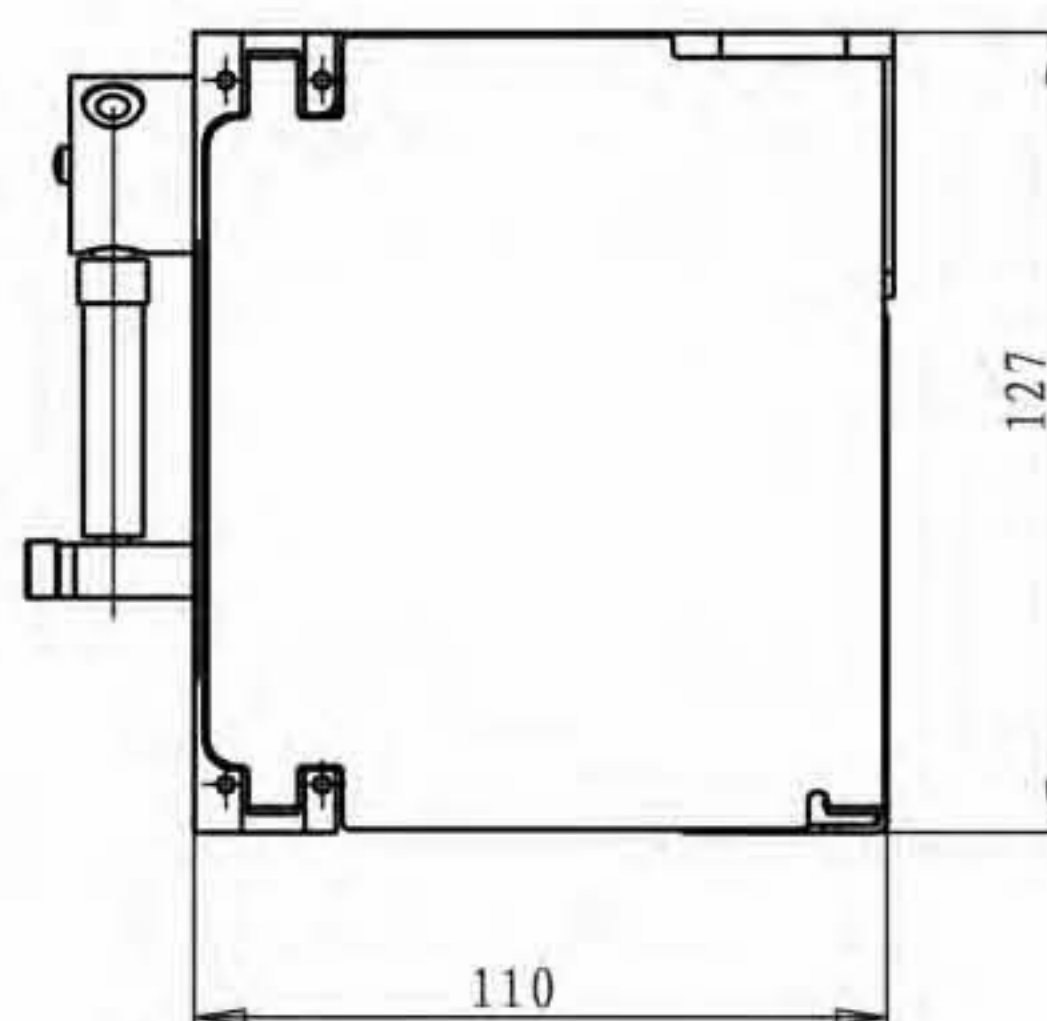
NEW

Industrial syringe pump G3030-1S

G3030-1S a compact structure pump, is suitable for Industrial automatic with high accuracy. Main used with the devices or the instruments, especially for the task of programming and the automatic. Many mounting ways to choose, rotary valve reversers automatic, improving the flexibility of embedded installation of G3030-1S. More complicated and comprehensive operating task can be finished with the matched PC software. It can program, storage, increases the degree of automation, which is very suitable for the high-automatic field. G3030-1S with wide linear velocity, can mounted with lots of syringe model, can easily realize the automatic of the transmission of flow, dilution, distribution and so on, with high precision and accuracy. The good material of the syringe, valve and tube coupling, providing excellent chemical characteristics of the G3030-1S, greatly increased the application field of the device.

Technical parameters

- Flow accuracy: error $\leq 1\%$ (rated stroke)
- Flow repeatability: repeatability $\leq 0.5\%$
- Rated stroke (step): 30mm (3000 steps)
- Linear speed: 0.005mm/s-25mm/s
- Time for rated stroke: 1.2s-6000s
- Control resolution: 0.01mm (1 step)
- Drive mechanism: lead screw and slide rail
- Syringe model: 50 μ L, 100 μ L, 250 μ L, 500 μ L, 1mL, 2.5 mL, 5 mL
- Valve type: 3-port 120° valve (Standard)
4-port 90° valve (Optional)
- Communication interface: RS485/RS232 can setup
- Communicate baud rate: 9600/38400
- Valve plug turn time: < 280 ms
- Wetted material: Borosilicate glass, PTFE, PCTFE
- Tubing fitting: 1/4"-28 thread
- Syringe fitting: 1/4"-28 thread
- Signal input: 2 input signals TTL (Internal photoelectric isolation, (drive current > 16 mA) to restart the pump after pause.
- Signal output: OC gate output signal of internal photoelectric isolation, (TTL signal optional) to indicate Work i state.
- Pump parameter setting: 7 dial DIP switch
- Dimension (L×W×H): 110x44.4x127(mm)
- Power supply: DC 24V/1.5A
- Working temperature: 15°C-40°C (determined by the PTFE of the syringe)
- Working Relative Humidity: $< 80\%$
- Weight: 1.23kg



Reversing valve

	Threaded coupling	Material
3-port-120° valve	1/4"-28UNF	PTFE/PCTFE

Dimension

NEW



Micro gear pump CT3001F

CT3001F is a high performance, low noise of micro gear pump, brushless servo motor, stainless steel, magnetic drive pump can be realized without pulsation, constant velocity of the fluid flow control. Streamline drives use plastic shell, color LCD display, touch screen operation, can be easily set parameters. A variety of work mode, flow display, it is suitable for all kinds of experimental areas. A variety of external control way, convenient use together with other devices, more the MODBUS protocol communication, simplify the difficulty of system development.

Technical parameters

- The flow range: 15-2700 - ml/min
- Speed range: 50-3000 RPM
- The RPM speed resolution: 1
- Transmission fluid particle limitations: the particle diameter of 10 or less μm
- Transmission fluid viscosity: 200 cSt or less
- Analog input signal: 0 to 5 v (standard), 0 to 10 v, 4-20 mA (optional)
- Speed output signals: 0 to 5 v
- External control signal: 5 v, 12 v (standard), 24 v (optional)
- Communications: RS485 communication, MODBUS protocol
- The mechanical structure: LF - EasyChange system
- The software system: LF - Touch - GUI (standard); LF - LabComSoft computer control software (optional)
- Working environment: temperature 0 to 40 $^{\circ}\text{C}$, relative humidity of < 80%
- The power supply voltage: AC 100-240 v / 50 w
- IP grade: IP31
- Dimension: 223 * 150 * 195 mm
- Weight: 3.68 kg

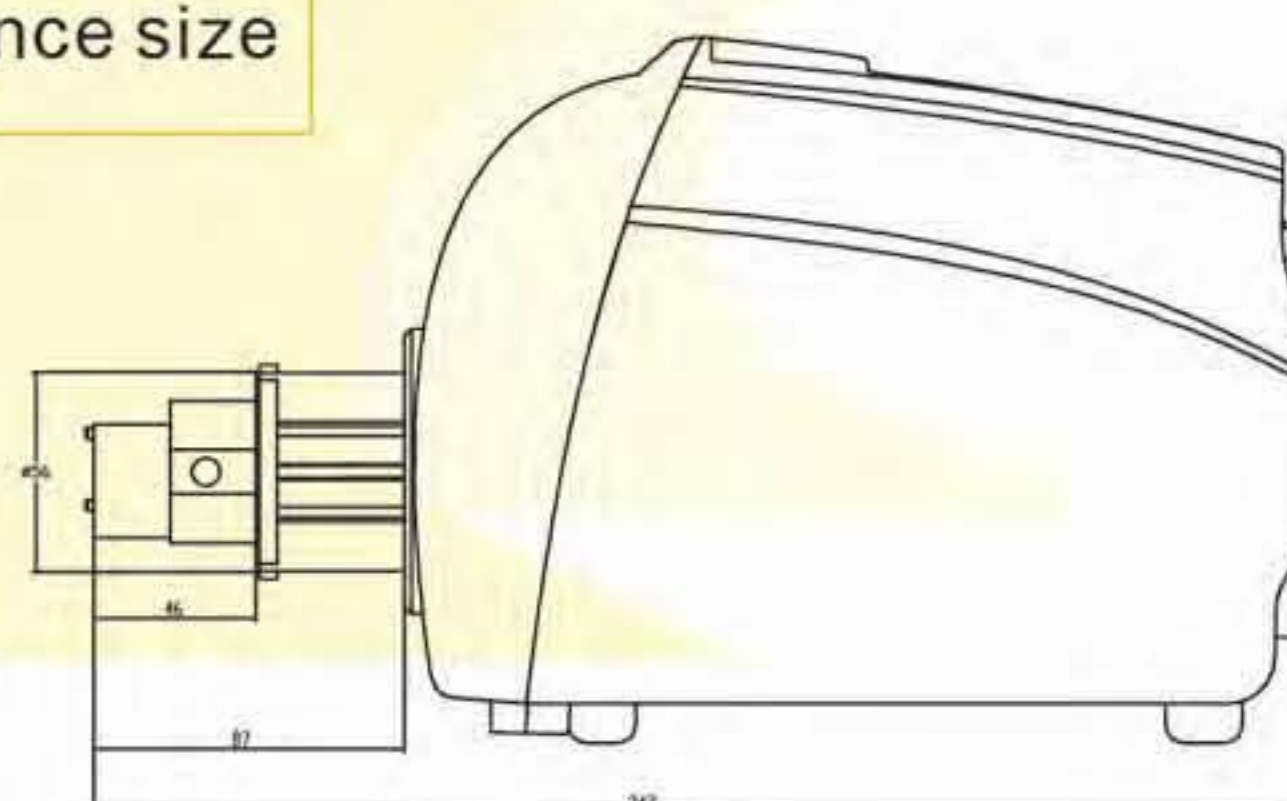


CT3001S



CT3000F

Appearance size



Selection of reference

Pump head model	Gear material	Transfer pressure(Mpa)	Single channel Flow rate(ml/min)
MG204XD0PT00000	PEEK	0.8	15-900
MG204XD0TT00000	PEEK	0.8	30-1800
MG213XD0PT00000	PEEK	0.3	45-2700
MG204XD0TT00000	PTFE	0.8	15-900
MG209XD0PT00000	PTFE	0.8	30-1800
MG213XD0TT00000	PTFE	0.3	45-2700

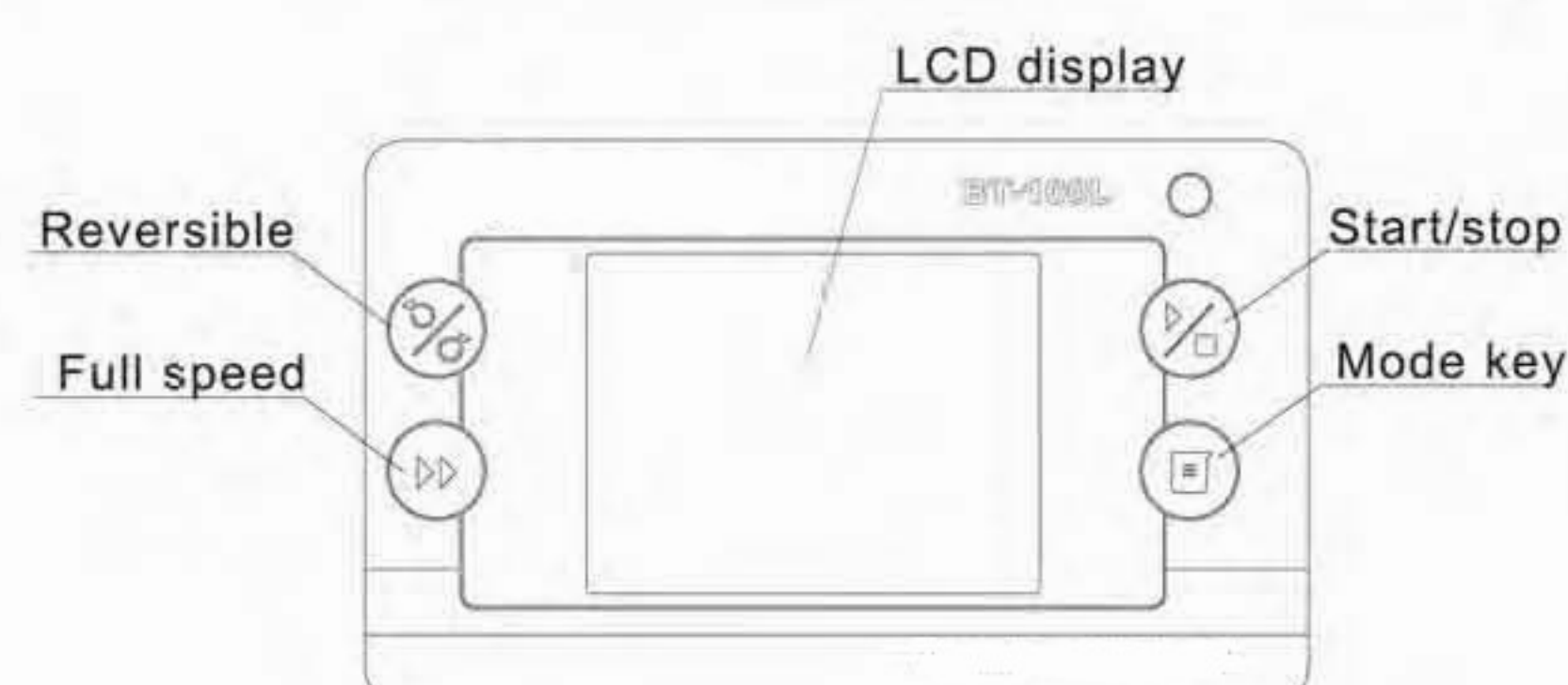


BT100L/BT300L/BT600L Intelligent Flow Peristaltic Pump Introduction

BT100L/BT300L/BT600L Intelligent flow peristaltic pump adopts color LCD and touch screen technology. the operator can input the flow rate directly. Simple operation, the operating interface is intuitive. This product mainly uses in controlling the flow transmission, the highest accuracy of controlling flow is 0.5%. Unique dispensing function realizes the repeat timing quantitative dispensing. RS485 interface, as adopting the MODBUS communication protocol, the pump is easier to be connected with other equipments, such as computer, human machine interface and PLC.



Display Panel and Operating Keypads



Function and Feature

- Color LCD displaying, touch screen and keypad for operating.
- Reversible direction, start/stop and full speed, state memory (power-down memory).
- Speed resolution is above 0.1rpm.
- Display and control flow rate, accumulate dispensing volume automatically.
- Calibrating Flow function.
- Easy dispensing function, it realizes the repeat timing quantitative dispensing, without the time controller.
- The operating expert system guides users setting parameters correctly.
- Intelligent temperature-control technology reduces working noise.
- External high-low electrical level controls the start/stop, reversible direction and easy dispensing function, optically coupled isolator; external analog adjusts the rotate speed.

- RS485 interface, MODBUS protocol is available, easy to connect other equipments.
- Internal double-deck isolation structure; circuit board with conformal coating makes it dust-proof and moisture-proof.
- Super anti-interference feature, wide input voltage range, acceptable for the complex power environment.
- Stainless steel housing, easy to clean, excellent resistance to the corrosion of the acid, alkali, sodium and the organic solvents.
- Can drive multi-channels and various types of pump heads.
- Optional footswitch or timer for dispensing fluid.

Technical parameters	BT100L	BT300L	BT600L
Flow range (ml/min) :	0.0001-720	0.006-1600	0.006-2900
Speed range (rpm) :	0.1-150	0.1-350	0.1-600
Speed resolution (rpm) :	0.1rpm		
Speed accuracy :	<0.5%		
Power supply :	AC100-240V± 10% 50Hz/60Hz		
Power consumption :	<40W	<50W	<60W
External control :	Input level 5V,12V(standard),24V(optional) External control analog 0-5v(standard),0-10v,4-20mA(optional)		
Communication interface:	RS485 communication interface, MODBUS protocol is available.		
Operating condition:	Temperature 0~40°C,Relative humidity <80%		
IP grade:	IP31		
Dimensions(LxWxH):	226x150x238(mm)		
Weight:	4.7 kg	4.9kg	5.2 kg



BT100L/300L/600L Applicable Pump head and tubing, flow parameters

Drive type	Pump head	Channel number	Tubing(mm)	Single channel Flow rate (ml/min)
BT100F	DG (6rollers)	1, 2, 4	Wall0.8~1, ID≤3.17	0.00016~49
	DG (10rollers)	1, 2, 4	Wall0.8~1, ID≤3.17	0.00011~41
	DT10-18	1	13#14# Wall0.8~1, ID≤3.17	0.0002~82
	DT10-28	2	13#14# Wall0.8~1, ID≤3.17	0.0002~82
	DT10-48	4	13#14# Wall0.8~1, ID≤3.17	0.0002~82
	YZ15	1, 2	13#14#16#19#25#17#	0.0006~420
	YZ25	1, 2	15#24#	0.16~420
	YT15	1, 2	13#14#16#19#25#17#18#	0.0006~570
	YT25	1, 2	15#24#35#36#	0.17~720
	DT15-14	1	19#16#25#17#	0.05~400
	DT15-24	2	19#16#25#17#	0.05~400
	DT15-44	4	19#16#25#	0.05~260
BT300F	YZ15	1, 2	13#14#16#19#25#17#	0.006~990
	YZ25	1, 2	15#24#	0.16~990
	DT15-14	1	19#16#25#17#	0.05~930
	DT15-24	2	19#16#25#17#	0.05~930
	DT15-44	4	19#16#25#	0.05~610
	YT15	1, 2	13#14#16#19#25#17#18#	0.006~1300
	YT25	1	15#24#35#36#	0.16~1600
BT600F	YZ15	1, 2	13#14#16#19#25#17#	0.006~1700
	YZ25	1, 2	15#24#	0.16~1700
	YT15	1, 2	13#14#16#19#25#17#18#	0.006~2300
	YT25	1	15#24#35#36#	0.16~2900

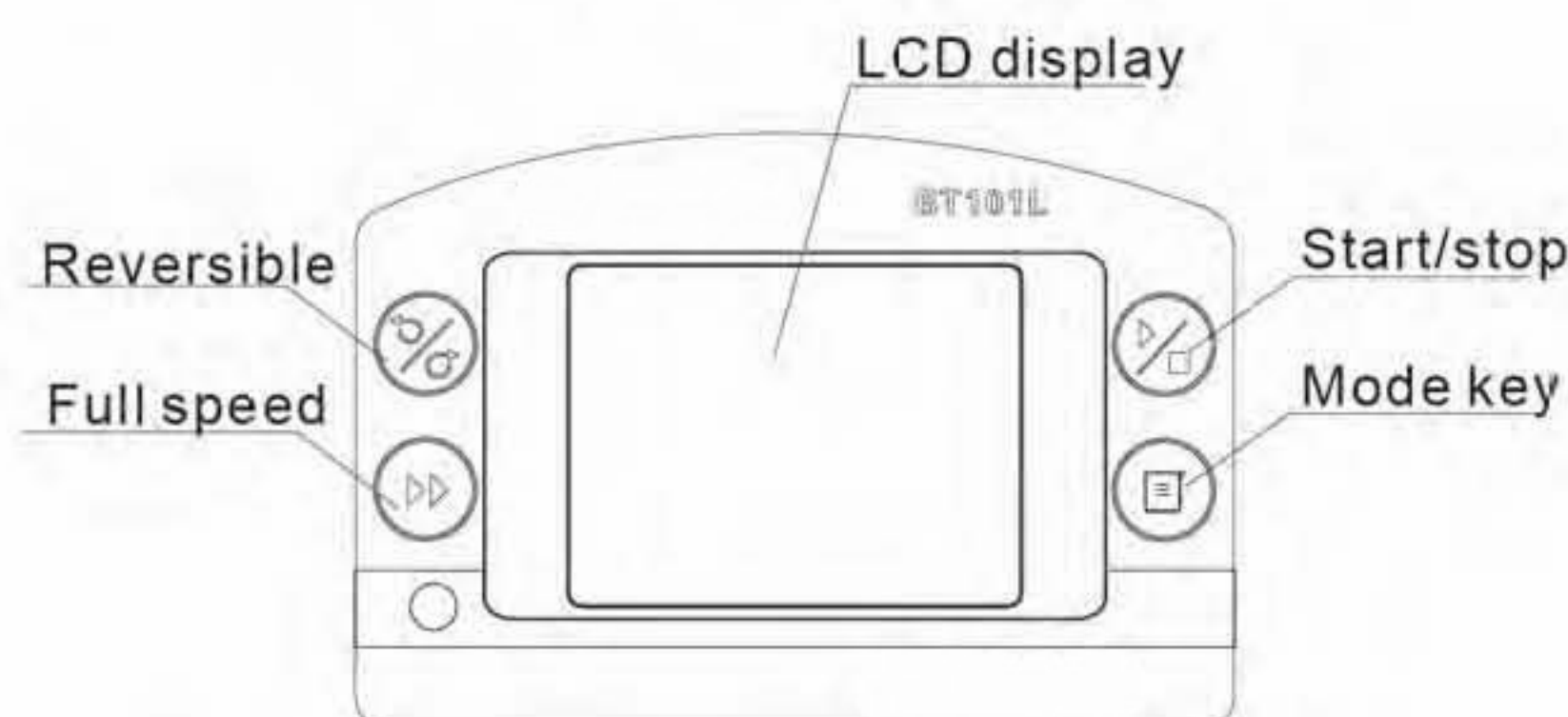
BT101L/BT301L/BT601L Intelligent Flow Peristaltic Pump Introduction

BT101L/BT301L/BT601L Intelligent flow peristaltic pump adopts color LCD and touch screen technology. the operator can input the flow rate directly. Simple operation, the operating interface is intuitive. This product mainly uses in controlling the flow transmission, the highest accuracy of controlling flow is 0.5%. Unique dispensing function realizes the repeat timing quantitative Dispensing. RS485 interface, as adopting the MODBUS communication protocol, the pump is easier to be connected with other equipments, such as computer, human machine interface and PLC.

Function and Feature

- Color LCD displaying, touch screen and keypad for operating.
- Reversible direction, start/stop and full speed, state memory (power-down memory).
- Speed resolution is above 0.1rpm.
- Display and control flow rate, accumulate dispensing volume automatically.
- Calibrating Flow function.
- Easy dispensing function, it realizes the repeat timing quantitative dispensing, Without the time controller.
- The operating expert system guides users setting parameters correctly.
- Intelligent temperature-control technology reduces working noise.
- External high-low electrical level controls the start/stop, reversible direction and easy dispensing function, optically coupled isolator; External analog adjusts the rotate speed.
- RS485 interface, MODBUS protocol is available, easy to connect other equipments.

Display Panel and Operating Keypads

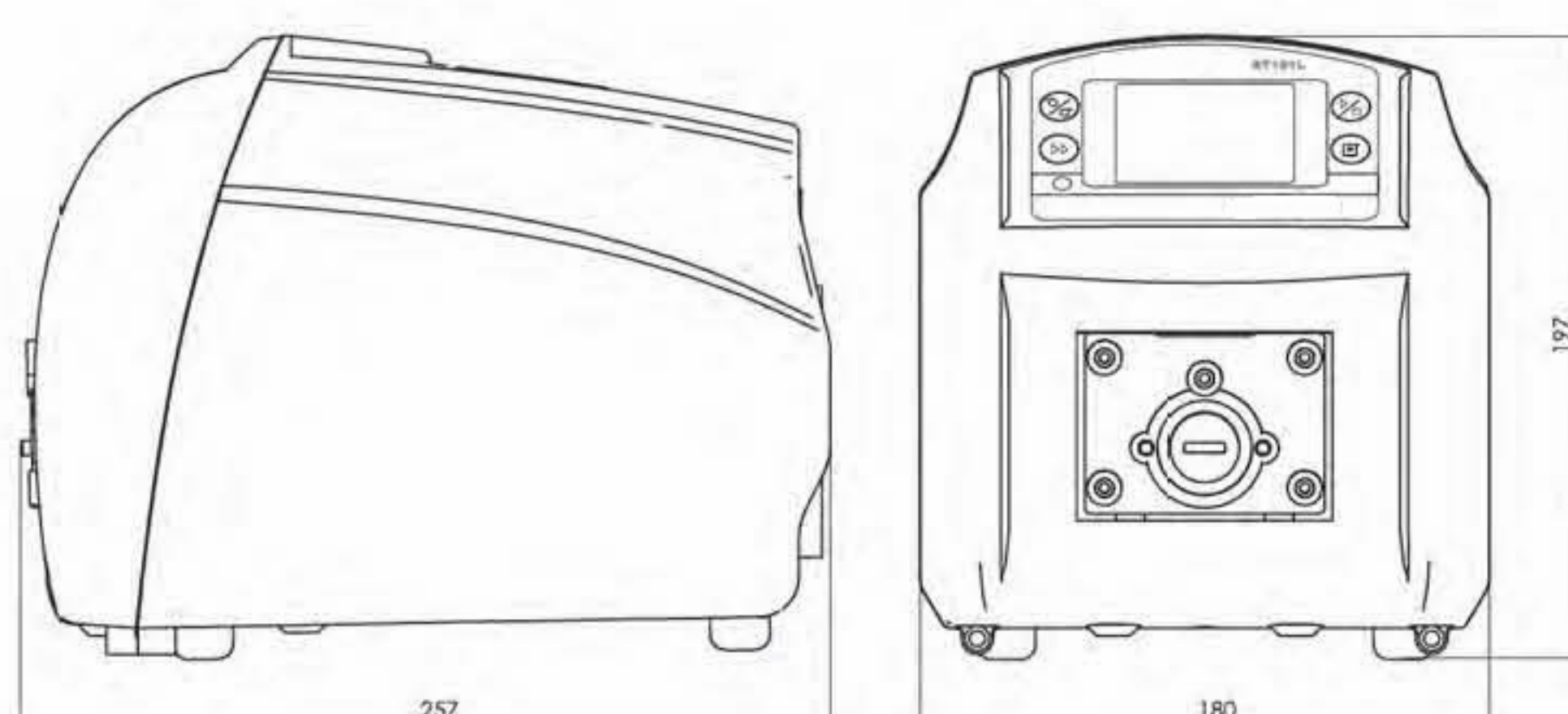


- Internal double-deck isolation structure; circuit board with conformal coating makes it dust-proof and moisture-proof.
- Super anti-interference feature, wide input voltage range, acceptable for the complex power environment.
- ABS plastic housing, creative streamlined appearance.
- Can drive multi-channels and various types of pump heads.
- Optional footswitch or timer for dispensing fluid.

Technical parameters	BT101L	BT301L	BT601L
Flow range (ml/min) :	0.0001-720	0.006-1600	0.006-2900
Speed range (rpm) :	0.1-150	0.1-350	0.1-600
Speed resolution (rpm) :	0.1rpm		
Speed accuracy :	<0.5%		
Power supply :	AC100-240V± 10% 50Hz/60Hz		
Power consumption :	<30W	<40W	<50W
External control :	Input level 5V,12V(standard),24V(optional) External control analog 0-5v(standard),0-10v,4-20mA(optional)		
Communication interface:	RS485 communication interface, MODBUS protocol is available.		
Operating condition:	Temperature 0~40°C, Relative humidity <80%		
IP grade:	IP31		
Dimensions(LxWxH):	257x180x197(mm)		
Weight:	4.5 kg	4.7 kg	4.9 kg



BT101L/301L/601L Drive with different pump heads combination



Appearance size



BT101L/301L/601L Applicable Pump head and tubing, flow parameters

Drive type	Pump head	Channel number	Tubing(mm)	Single channel Flow rate (ml/min)
BT101L	DG(6rollers)	1, 2, 4	Wall0.8 ~ 1, ID≤3.17	0.00016~49
	DG(10rollers)	1, 2, 4	Wall0.8 ~ 1, ID≤3.17	0.00011~41
	DT10-18	1	13#14# Wall0.8~1, ID≤3.17	0.0002~82
	DT10-28	2	13#14# Wall0.8~1, ID≤3.17	0.0002~82
	YZ15	1	13#14#16#19#25#17#	0.006~420
	YZ25	1	15#24#	0.16~420
	YT15	1	13#14#16#19#25#17#18#	0.006~570
	YT25	1	15#24#35#36#	0.16~720
BT301L	YZ15	1	13#14#16#19#25#17#	0.006~990
	YZ25	1	15#24#	0.16~990
	YT15	1	13#14#16#19#25#17#18#	0.006~1300
	YT25	1	15#24#35#36#	0.16~1600
	YT25	1	15#24#35#36#	0.16~1600
BT601L	YZ15	1	13#14#16#19#25#17#	0.006~1700
	YZ25	1	15#24#	0.16~1700
	YT15	1	13#14#16#19#25#17#18#	0.006~2300
	YT25	1	15#24#35#36#	0.16~2900



BQ80S Micrometer Speed-Variable Peristaltic Pump Introduction

- Simple operation, small size, easy installation, suitable for ancillary equipment and laboratories.
- FZ10 pump head Built-in Pharmed BPT tubing whose working life is up to 12000 hours under continuously running.
- Four-figure digital LED indicator displays working speed.
- The LED indicator displays the internal, external control mode.
- Mask keypad operation.
- Reversible direction, start/stop, adjust speed and full speed, state Memory (power-down memory).
- Easy dispensing function, it realizes the repeat timing quantitative dispensing.
- Speed resolution is 0.1rpm.
- Plastic housing, adopts On the desktop separately.
- The circuit board with conformalcoating makes it dust-proof and moisture- proof.
- Super anti-interference feature, wide input voltage range, acceptable for the complex power Environment.
- External high-low electrical level controls the start/stop, reversible Direction and easy dispensing function, optically coupled isolator.
- Can input the electrical level 5V, 12V or 24V.
- RS485 interface, MODBUS protocol is available, easy to connect other equipments.

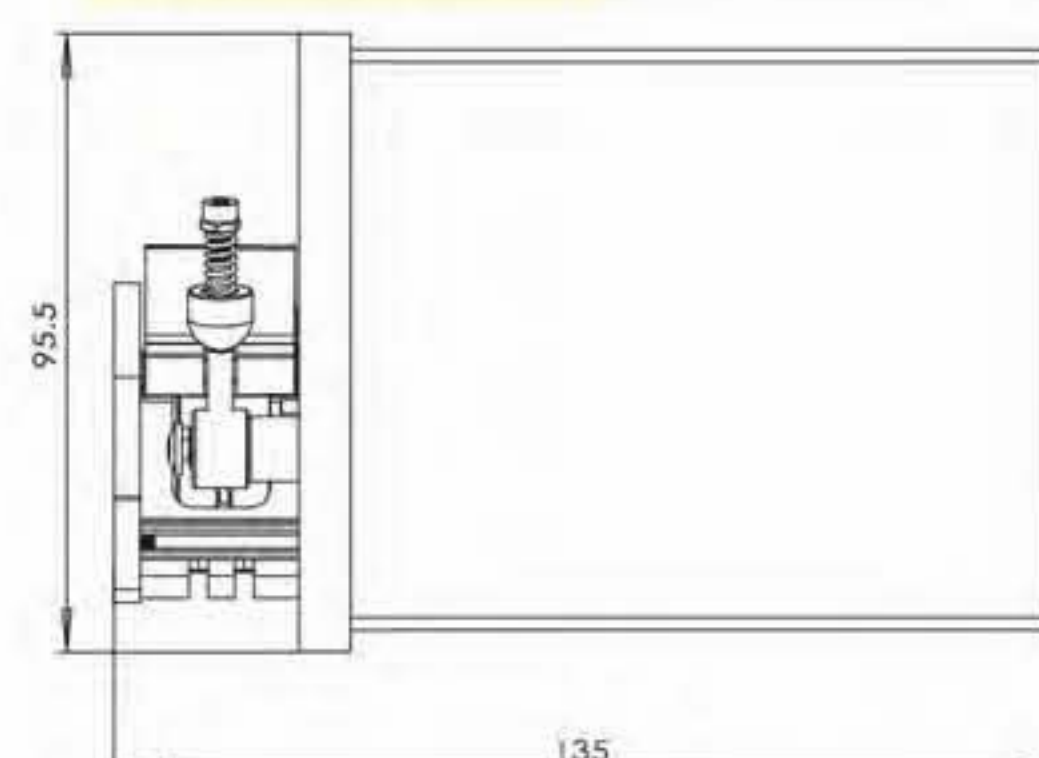
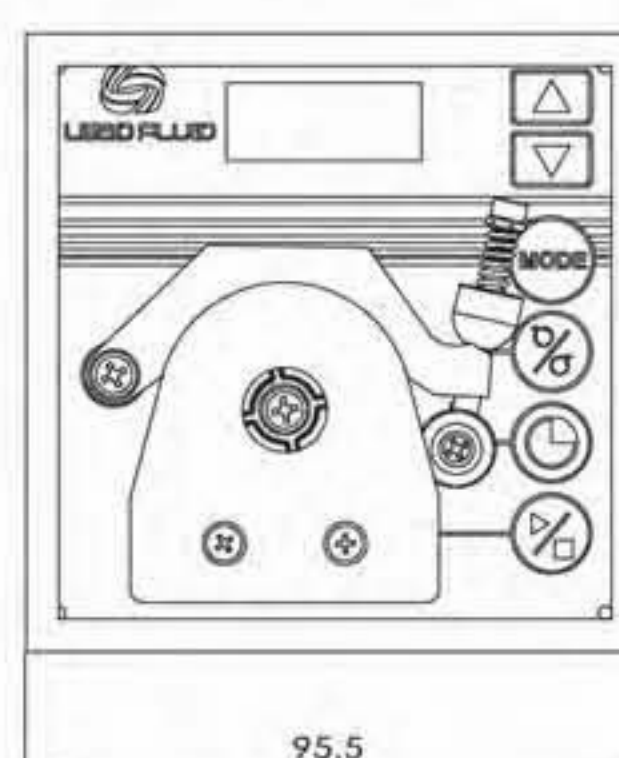


DW head series

FZ10 head series

Technical parameters	BQ80S
Flow range(ml/min):	0.005~64
Speed range(rpm):	0.1-80
Speed resolution(rpm):	0.1rpm
Speed accuracy:	<0.5%
Power supply:	AC100-240V 50Hz/60Hz
Power consumption:	<10W
External control:	Input level 5V12V(standard),24V(optional)
Communication interface:	Rs485 communication interface, MODBUS protocol is available.
Operating condition:	Temperature 0~40℃ Relative humidity <80%
IP grade:	IP31
Dimensions(LxWxH):	112x96x96(mm)
Weight:	0.8kg

Appearance size



BQ80S Applicable Pump head and tubing, flow parameters

Drive type	Pump head	Channel number	Tubing(mm)	Single shannil*(ml/min)
BQ80S	FZ10	1	Wall0.8~1 , ID≤3.17	0.05~40
	DW10-1	1	Wall0.8~1 , ID≤3.17	0.005~32
	DW10-2	2	Wall0.8~1 , ID≤2.54	0.005~19
	DW10-3	3	Wall0.8~1 , ID≤3.17	0.005~32
	DW15-1	1	13#14#16#19#25#	0.005~64

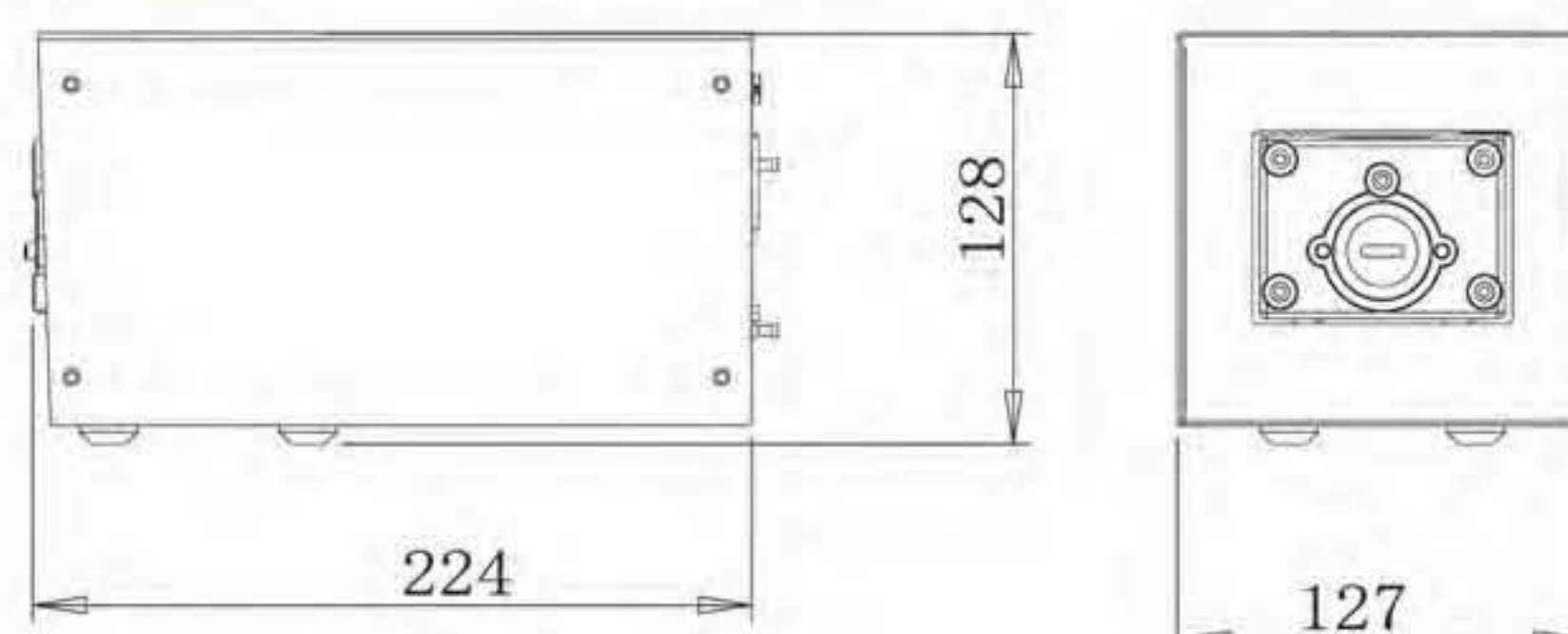
BT50S/BT102S Micrometer Speed-Variable Peristaltic Pump Introduction

- Four-figure digital LED indicator displays working speed.
- The LED indicator displays the internal , external control mode.
- Mask keypad operation.
- Reversible direction, start/stop, adjust speed and full speed, state memory (power-down memory).
- Easy dispensing function, it realizes the repeat timing quantitative dispensing .
- Speed resolution is 0.1rpm.
- Stainless steel housing, easy to clean, excellent resistance to the corrosion of the acid, alkali, sodium and the organic Solvents.
- Can drive multi-channels and various types of pump heads.
- The circuit board with conformal coating makes it dust-proof and moisture-proof.
- Super anti-interference feature, wide input voltage range, acceptable for the complex power environment.
- External high-low electrical level controls the start/stop, reversible direction and easy dispensing function, Optically coupled isolator; External analog adjusts the rotate speed.
- RS485 interface, MODBUS protocol is available, easy to connect other equipments.
- Optional footswitch or timer for dispensing fluid.



Technical parameters	BT50S	BT102S
Flow range (ml/min)	0.0001 ~ 190	0.0001 ~ 480
Speed range (rpm)	0.1-50	0.1-100
Speed resolution(rpm)	0.1rpm	
Speed accuracy	< 0.5%	
Power supply	AC100-240V 50Hz/60Hz	
Power consumption	<25W	<30W
External control	Input level 5V,12V(standard)24V(optional)	
Communication interface	Rs485 communication interface, MODBUS protocol is available.	
Operating condition	Temperature 0~40℃,Relative humidity <80%	
IP grade	Ip31	
Dimensions(LxWxH)	224mm×127mm×128mm	
Weight	2.6 kg	2.7 kg

Appearance size



BT50S/BT102S Pictures of applicable pump head



BT50S/102S Applicable Pump head and tubing,flow parameters

Drive type	Pump head	Channel number	Tubing(mm)	Single shannil*Flow rate(ml/min)
BT50S	DG	1 , 2	Wall0.8~1 , ID≤3.17	0.00011~24
	DT10-18	1	Wall0.8~1 , ID≤3.17	0.0002~41
	DT10-28	2	Wall0.8~1 , ID≤3.17	0.0002~41
	YZ15	1	13#14#16#19#25#17#	0.006~140
	YT15	1	13#14#16#19#25#17#18#	0.006~190
BT102S	DG	1 , 2	Wall0.8~1 , ID≤3.17	0.00011~49
	DT10-18	1	13#14# Wall0.8~1, 内径≤3.17	0.0002~82
	DT10-28	2	13#14# Wall0.8~1, 内径≤3.17	0.0002~82
	YZ15	1	13#14#16#19#25#17#	0.006~280
	YZ25	1	15#24#	0.16~280
	YT15	1	13#14#16#19#25#17#18#	0.006~380
	YT25	2	15#24#35#36#	0.16~480

BT100S/BT300S/BT600S Basic Speed-Variable Peristaltic Pump Introduction

BT100S Speed-Variable Peristaltic Pump, Adopts the specified LF-LCD-OS software program, English and Chinese two languages display. Easy and convenient. With the adjust speed, positive and negative directions, start/stop, full speed (clean) etc basic functions. The easy dispensing function can realize the repeat timing quantitative, continuous dispensing, flow testing etc more functions.

Function and Feature

- When running speed 0.1-100rpm, the resolution is 0.1rpm.
When running speed 100-150rpm, the resolution is 1rpm.
- LF-LCD-OS software program, The LCD panel, English and Chinese operation languages .easy to setup the parameters, status display intuitive.
- LF-Easy Change general design, large torque output, can drive 6 series different high-performance pump heads.
- Mask keypad operation.
- With the start/stop, positive and negative directions, full speed, adjust speed, state memory(power-down memory) .
- Easy dispensing function, can set up the working time, interval time, copy times, can realize the repeat timing quantitative, continuous dispensing, flow testing etc more functions.
- With t back to the suction function, effectively prevent the liquid drop.
- Stainless steel housing, easy to clean, excellent resistance to the corrosion of the acid, alkali, sodium and the organic solvents.
- Internal double-deck isolation structure, circuit board with conformal coating makes it dust-proof and moisture-proof.
- External high-low electrical level controls the start/stop, reversible direction and easy dispensing function, optically coupled isolator, external analog adjusts the rotate speed.
- RS485 interface, MODBUS protocol, easy to connect any equipments.
- Optional footswitch, convenience for using.

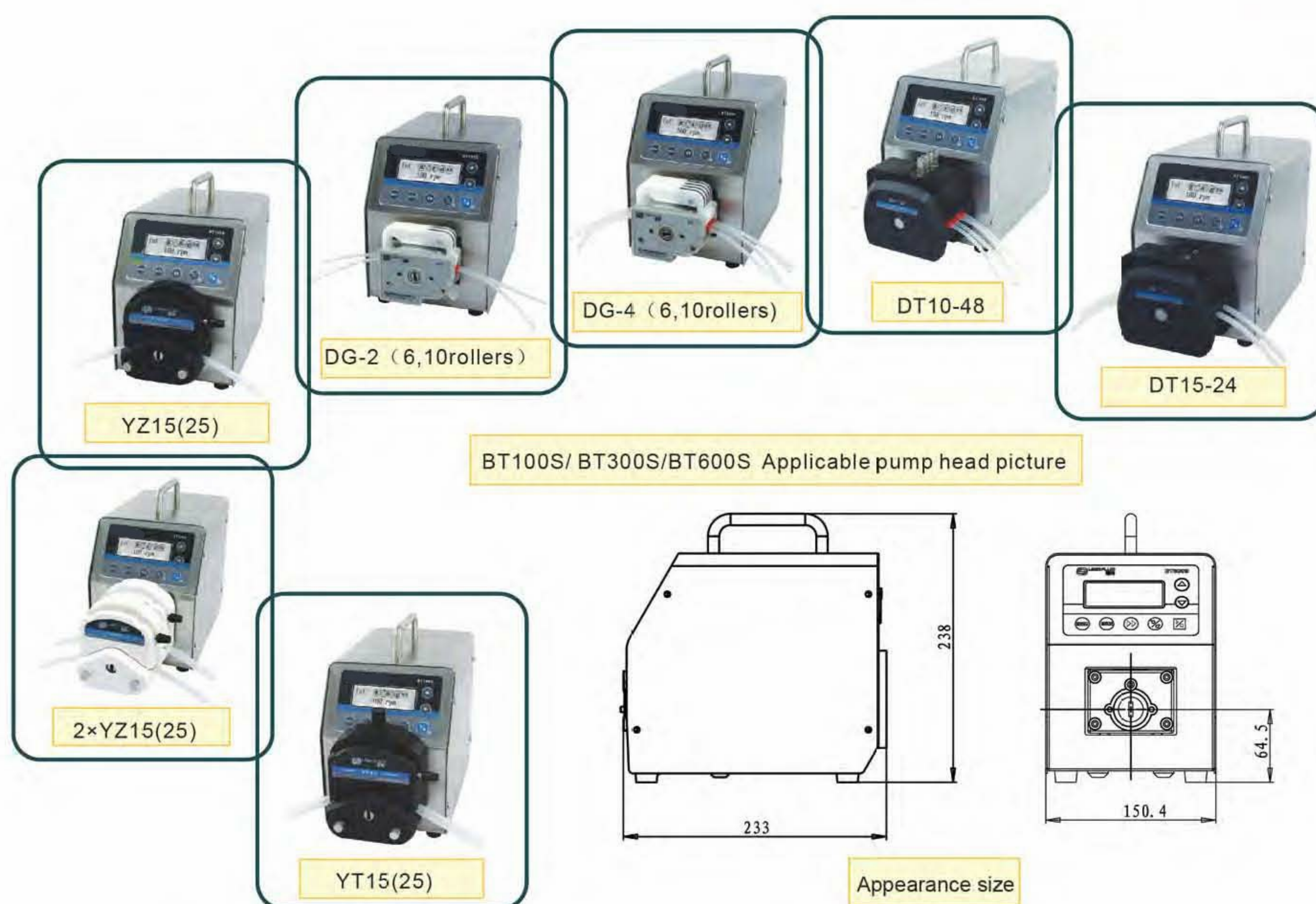


CE

Display panel and operating keypads



Technical parameters	BT100S	BT300S	BT600S
Flow range(ml/min):	0.0001 ~ 720	0.006 ~ 1600	0.006 ~ 2900
Speed range(rpm):	0.1-150	0.1-350	0.1-600
Speed resolution(rpm):	When running speed is 0.1-100rpm, the resolution is 0.1rpm When running speed is 100-600rpm, the resolution is 1rpm		
Flow accuracy:	< 0.5%		
Power supply:	AC100-240V 50/60Hz		
Power consumption:	< 40W	< 50W	< 60W
External control:	Input level 5V, 12V(standard), 24V(optional) External control analog 0-5v(standard), 0-10v, 4-20mA(optional)		
Communication interface:	RS485 communication interface, MODBUS protocol is available.		
Operating condition:	Temperature 0~40°C; Relative humidity <80%		
IP grade:	IP31		
Dimensions(LxWxH):	226mm×150mm×238mm		
Weight:	4.7kg	4.9 kg	5.2 kg



B100S/BT300S/BT600S Applicable Pump head and tubing, flow parameters

Drive type	Pump head	Channel number	Tubing(mm)	Single channel Flow rate (ml/min)
BT100S	DG (6rollers)	1, 2, 4	Wall 0.8 ~ 1, ID ≤ 3.17	0.00016~49
	DG (10rollers)	1, 2, 4	Wall 0.8 ~ 1, ID ≤ 3.17	0.00011~41
	DT10-18	1	13#14# Wall 0.8 ~ 1, ID ≤ 3.17	0.0002~82
	DT10-28	2	13#14# Wall 0.8 ~ 1, ID ≤ 3.17	0.0002~82
	DT10-48	4	13#14# Wall 0.8 ~ 1, ID ≤ 3.17	0.0002~82
	YZ15	1, 2	13#14#16#19#25#17#	0.006~420
	YZ25	1, 2	15#24#	0.16~420
	YT15	1, 2	13#14#16#19#25#17#18#	0.006~570
	YT25	1, 2	15#24#35#36#	0.16~720
BT300S	YZ15	1, 2	13#14#16#19#25#17#	0.006~990
	YZ25	1, 2	15#24#	0.16~990
	DT15-24	2	19#16#25#17#	0.05~930
	DT15-44	4	19#16#25#	0.05~610
	YT15	1, 2	13#14#16#19#25#17#18#	0.006~1300
	YT25	1	15#24#35#36#	0.16~1600
BT600S	YZ15	1, 2	13#14#16#19#25#17#	0.006~1700
	YZ25	1, 2	15#24#	0.16~1700
	DT15-24	2	19#16#25#17#	0.05~1600
	YT15	1, 2	13#14#16#19#25#17#18#	0.006~2300
	YT25	1	15#24#35#36#	0.16~2900



BT101S/301S/601S Basic Speed-Variable Peristaltic Pump introduction

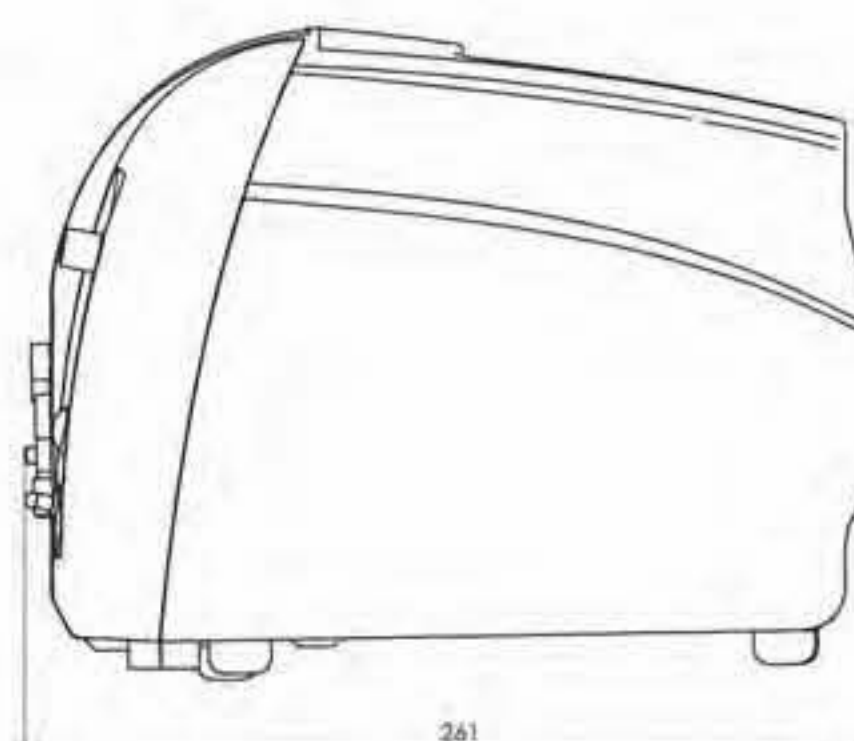
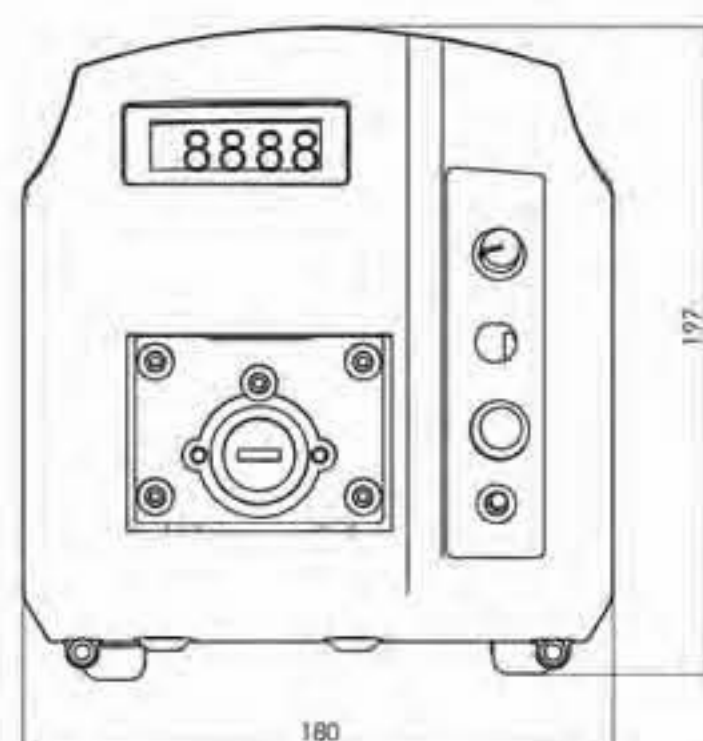
This Pump has basic functions such as reversible direction, start/s-top full speed (fast cleaning, empty), and speed-variable. Dispensing function can realize the repeat timing quantitative dispensing. RS485 interface, as adopting the MODBUS communication protocol, the pump is easier to be connected with other equipments, such as computer, human Machine interface and PLC.

Function and Feature

- Four-figure digital LED indicator displays working speed.
- The LED indicator displays the internal , external control mode.
- Rotary encoder controls running speed.
- Reversible direction, start/stop, full speed, state memory (power-down memory).
- Easy dispensing function, it realizes the repeat timing quantitative dispensing .
- 0.1-100 rpm, the speed resolution is 0.1 rpm. 100-150 rpm, the speed resolution is 1 rpm.
- ABS plastic housing, creative streamlined appearance.
- Can drive multi-channels and various types of pump heads.
- Internal double-deck isolation structure. circuit board with conformal coating makes it dust-proof and moisture-proof.
- Super anti-interference feature, wide input voltage range, acceptable for the complex power environment.
- External high-low electrical level controls the start/stop, reversible direction and easy dispensing function, optically coupled isolator; External analog adjusts the rotate speed.
- RS485 interface, MODBUS protocol is available, easy to connect other equipments.
- Optional footswitch or timer for dispensing fluid.

Technical parameters	BT101S	BT301S	BT601S
Flow range (ml/min)	0.0001 ~ 720	0.006 ~ 1600	0.006 ~ 2900
Speed range (rpm)	0.1-150	0.1-350	0.1-600
Speed resolution (rpm)	When running speed is 0.1-100rpm,the resolution is 0.1rpm When running speed is 100-600rpm,the resolution is 1rpm		
Flow accuracy	< 0.5%		
Power supply	AC100-240V 50/60Hz		
Power consumption	< 30W	< 40W	< 50W
External control	Input level 5V,12V(standard),24V(optional) External control analog0-5v(standard),0-10v,4-20mA(optional)		
Communication interface	Rs485 communication interface, MODBUS protocol is available.		
Operating condition	Temperature 0~40℃, Relative humidity <80%		
IP grade	Ip31		
Dimensions(LxWxH)	260mm×181mm×198mm		
Weight	4.5 kg	4.7 kg	4.9 kg

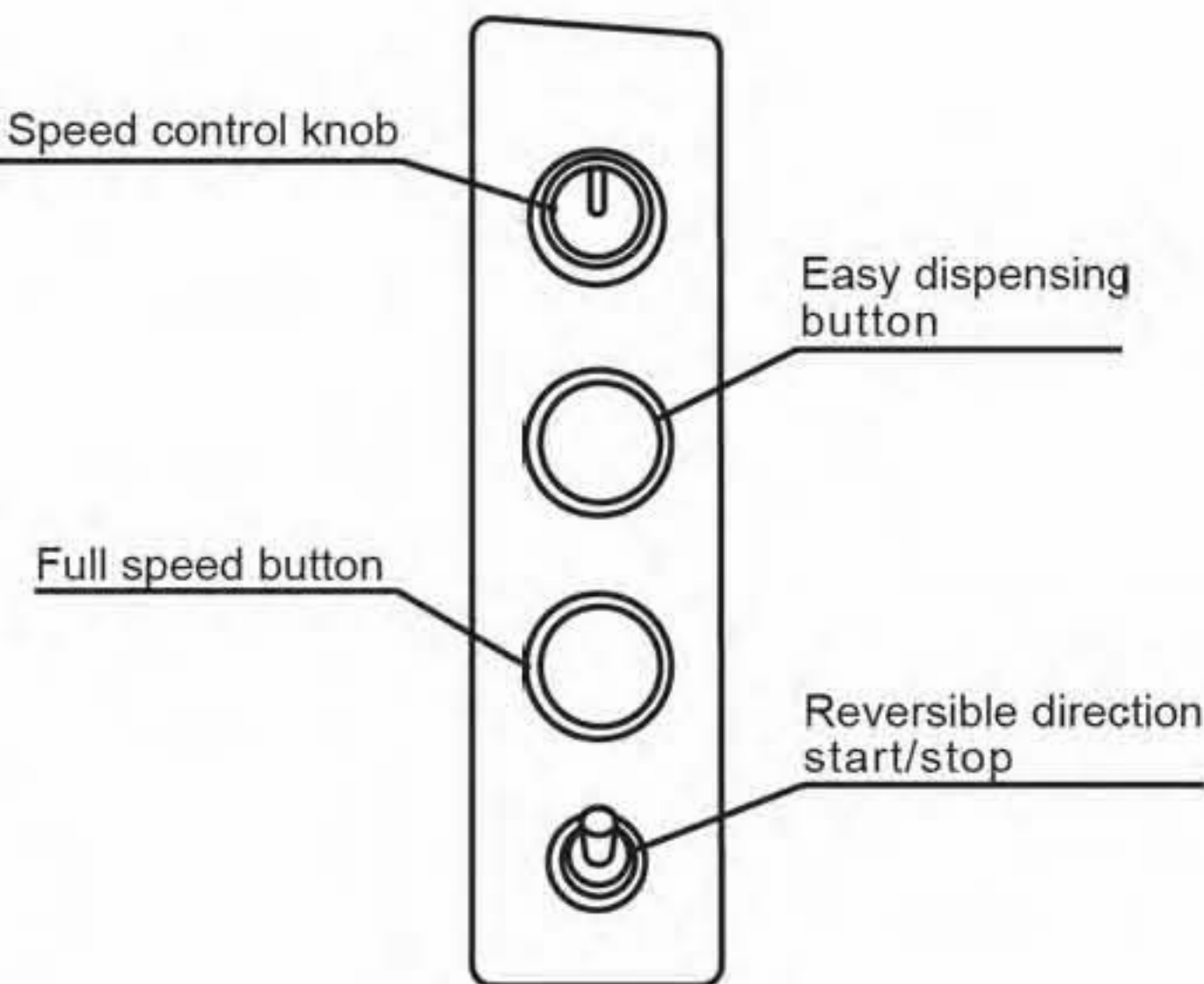
Appearance size



B101S/301S/601S Applicable Pump head and tubing,flow parameters

Drive type	Pump head	Channel number	Tubing(mm)	Single channel Flow rate (ml/min)
BT101S	DG (6rollers)	1 , 2 , 4	Wall0.8 ~ 1 , ID≤3.17	0.00016~49
	DG (10rollers)	1 , 2 , 4	Wall0.8 ~ 1 , ID≤3.17	0.00011~41
	DT10-18	1	13#14# Wall0.8~1 , ID≤3.17	0.0002~82
	DT10-28	2	13#14# Wall0.8~1 , ID≤3.17	0.0002~82
	YZ15	1	13#14#16#19#25#17#	0.006~420
	YZ25	1	15#24#	0.16~420
	YT15	1	13#14#16#19#25#17#18#	0.006~570
	YT25	1	15#24#35#36#	0.16~720
BT301S	YZ15	1	13#14#16#19#25#17#	0.006~990
	YZ25	1	15#24#	0.16~990
	YT15	1	13#14#16#19#25#17#18#	0.006~1300
	YT25	1	15#24#35#36#	0.16~1600
BT601S	YZ15	1	13#14#16#19#25#17#	0.006~1700
	YZ25	1	15#24#	0.16~1700
	YT15	1	13#14#16#19#25#17#18#	0.006~2300
	YT25	1	15#24#35#36#	0.16~2900

BT101S/301S/601S Drive with different pump heads combination



Diplay Panel and Operating Keypads

DG-2（6,10rollers）



DG-1（6,10rollers）



DG-4（6,10rollers）



YT15(25)



YZ15(25)



DT10-18



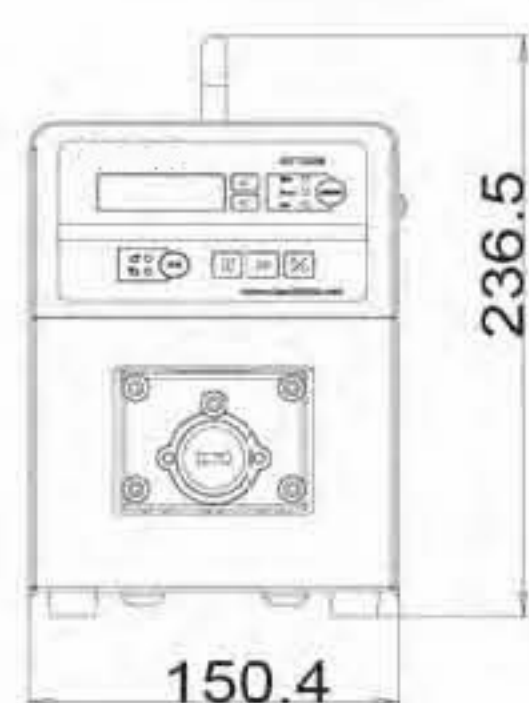


BT100S-1 Basic Speed –Variable Peristaltic Pump Function and Feature

- Four-figure digital LED indicator displays working speed.
- LED indicator displays the internal control, external control, footswitch and other working mode.
- Reversible direction, start/stop, full speed, state memory (powerdown memory).
- Easy dispensing function, it realizes the repeat timing quantitative dispensing liquid.
- The speed resolution is 0.1-100 rpm the speed resolution is 0.1 rpm. 100-150 rpm, the speed resolution is 1 rpm.
- Adopts large torque, can drive multi-channels and various types of pump heads.
- The circuit board with conformal coating makes it dust-proof and moisture-proof.
- Super anti-interference feature, wide input voltage range, acceptable for the complex power environment.
- External high-low electrical level controls the start/stop, reversible direction and easy dispensing function, optically coupled isolator; External analog adjusts the rotate speed.
- RS485 interface, MODBUS protocol is available, easy to connect other equipments.
- Optional footswitch or timer for dispensing fluid.

The parameters

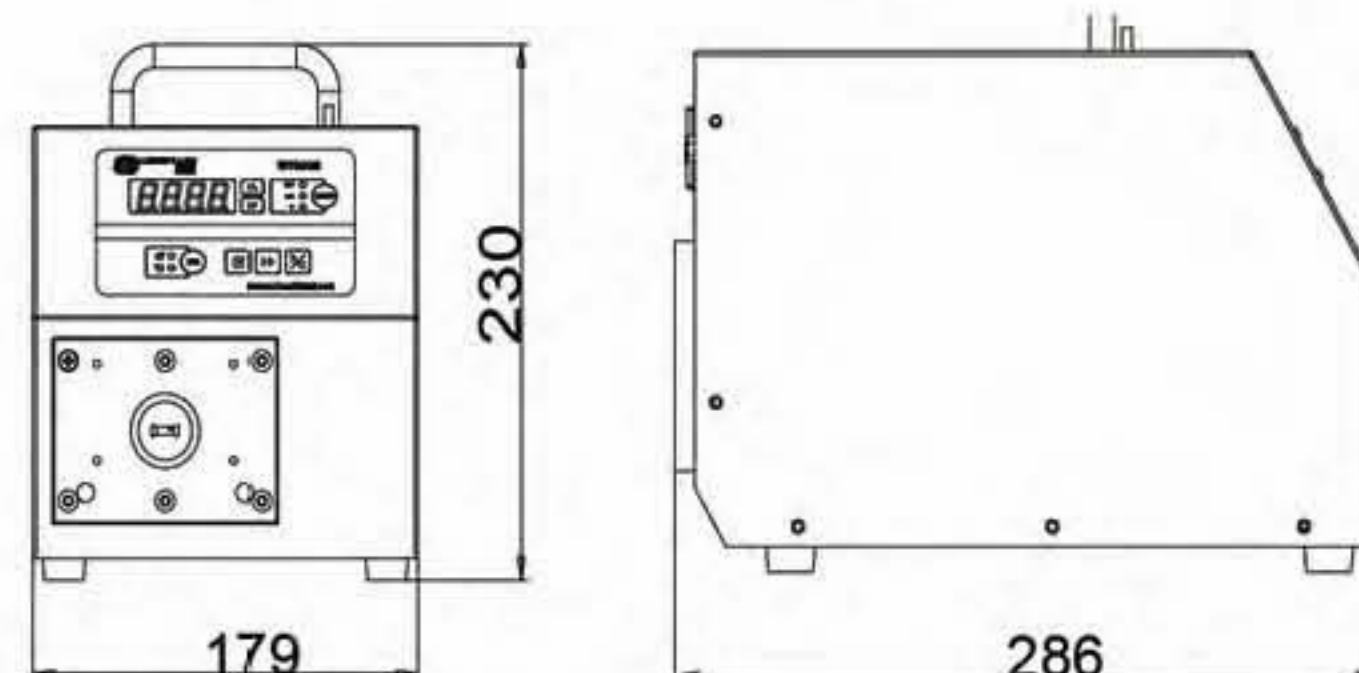
- Single channel Flow range: 0.00011-1500ml/min
- Speed accuracy: <0.5%
- Speed range: 0.1-150rpm.
- Speed resolution: 0.1-100 rpm, the speed resolution is 0.1 rpm, 100-150 rpm, the speed resolution is 1 rpm
- Power supply: AC 100-240V 50Hz/60Hz
- Power consumption: < 40W
- External control:
Input electrical level 5V, 12V (standard), 24V (optional).
- External control analog 0-5V (standard), 0-10V, 4-20mA (optional)
- External communication interface: RS485 communication interface, support the MODBUS protocol.
- Ambient temperature: 0 ~ 40°C
- Relative humidity: < 80%



Drive type	Pump head	Channel number	Tubing(mm)	Single channel Flow rate (ml/min)
BT100S-1	DG (6rollers)	8 , 12 , 16 , 24	Wall0.8~1, ID≤3.17	0.00016~49
	DG (10rollers)	8 , 12 , 16 , 24	Wall0.8~1, ID≤3.17	0.00011~41
	DT10-88	8	13#14# Wall0.8~1 , ID≤3.17	0.0002~82
	YZ15	1 , 2 , 4	13#14#16#19#25#17#	0.006~420
	YZ25	1 , 2 , 4	15#24#	0.16~420
	YT15	1 , 2 , 4	13#14#16#19#25#17#18#	0.006~570
	YT25	1 , 2 , 4	15#24#35#36#	0.16~720
	KZ25	1 , 2	15#24#35#36#	1~1500
	DT15-44	4	19#16#25#17#	0.05~400

WT300S/WT600S Basic Speed-Variable Peristaltic Pump

This pump adopts DC brushless motor drive which is large torque, free maintenance, can cascade four pump heads. Has basic functions such as reversible direction, start/stop, full speed, fast cleaning, and adjust speed control the start/stop, reversible direction, adjusts the speed via external analog quality, and adds the time dispensing function.



WT300S/WT600S Drive with different pump heads combination

WT300S/WT600S Applicable Pump head and tubing, flow parameters

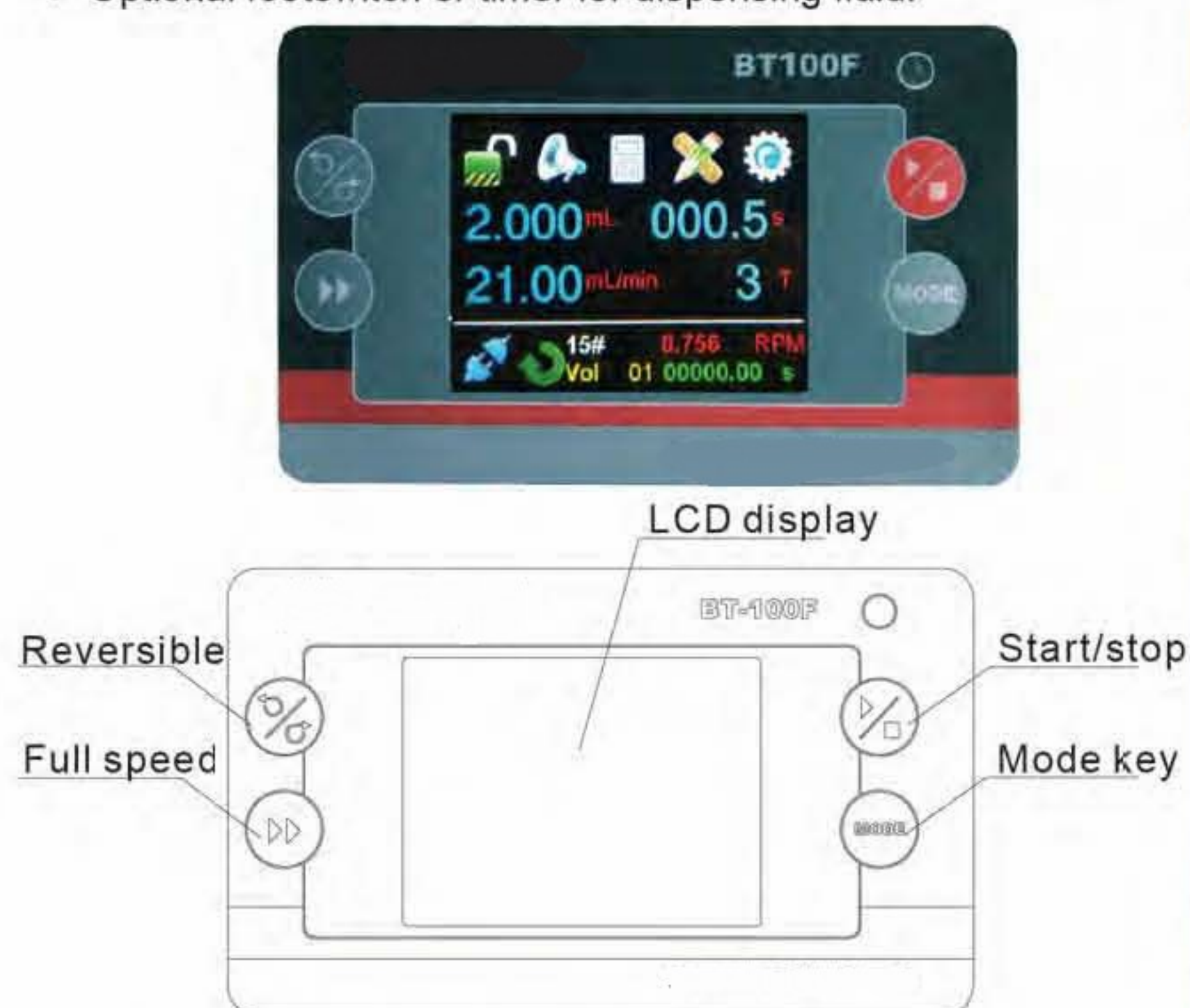
Drive type	Pump head	Channel number	Tubing(mm)	Single channel Flow rate (ml/min)
WT300S	YZ15	1, 2, 4	13#14#16#19#25#17#	3 ~ 990
	YZ25	1, 2, 4	15#24#	50 ~ 990
	YT15	1, 2, 4	13#14#16#19#25#17#18#	3 ~ 1300
	YT25	1, 2, 4	15#24#35#36#	50 ~ 1600
	DT15-24	2	19#16#25#17#	14 ~ 930
	DT15-44	4	19#16#25#17#	14 ~ 930
	KZ25	1, 2	15#24#35#36#	80 ~ 3500
WT600S	YZ15	1, 2, 4	13#14#16#19#25#17#	3 ~ 1700
	YZ25	1, 2, 4	15#24#	50 ~ 1700
	YT15	1, 2, 4	13#14#16#19#25#17#18#	3 ~ 2300
	YT25	1, 2, 4	15#24#35#36#	50 ~ 2900
	DT15-24	2	19#16#25#17#	14 ~ 1600
	DT15-44	4	19#16#25#17#	14 ~ 1600
	KZ25	1, 2	15#24#35#36#	80 ~ 6000

WT600S-65



BT100F/BT300F/BT600F Intelligent Dispensing Peristaltic Pump Introduction

- Color LCD displaying, touch screen and keypad for operating.
- Three types of distributing mode: time dispensing mode; volume dispensing mode; copy dispensing mode.
- Automatically store five groups of working parameters.
- Precious controlling technology for motor's rotating angle increases the dispensing accuracy comparing to traditional time dispensing mode.
- Remote infrared controlling function.
- Reversible direction, start/stop and full speed, state memory (power-down memory).
- Speed resolution is 0.1rpm.
- Display and control flow rate, accumulate dispensing volume automatically.
- Calibrating flow function.
- The operating expert system guides users setting parameters correctly.
- Intelligent temperature-control technology reduces working noise.
- External high-low electrical level controls the start/stop, reversible direction and easy dispensing function, optically coupled isolator; External analog adjusts the rotatespeed.
- RS485 interface, MODBUS protocol is available, easy to connect other equipments.
- Internal double-deck isolation structure. circuit board with conformal coating makes it dust-proof and moisture-proof.
- Super anti-interference feature, wide input voltage range, acceptable for the complex power environment.
- Stainless steel housing, easy to clean, excellent resistance to the corrosion of the acid, alkal, sodium and the organic solvents.
- Can drive multi-channels and various types of pump heads.
- Optional footswitch or timer for dispensing fluid.



Display Panel and Operating Keypads

Filling application reference table

Filling fluid volume	Recommend the pump head	Recommend the tube	Speed (RPM)	Filling time (second)	Reliability error (%)
50uL	DG6-1	0.25×0.89	>90	<6.66	<±2
0.1mL	DG6-1	0.5×0.8	>90	<3.03	<±2
0.2mL	DG6-1	0.5×0.8	>90	<6.06	<±1
0.3mL	YZ15	13#	>500	<0.6	<±2
0.5mL	YZ15	13#	>500	<1	<±1
0.8mL	YZ15	13#	>500	<1.6	<±1
1mL	YZ15	13#	>500	<2	<±1
2mL	YZ15	14#	>500	<1.1	<±1
3mL	YZ15	14#	>500	<1.65	<±1
5mL	YZ15	19#	>500	<1.68	<±1
8mL	YZ15	16#	>500	<1.2	<±1
10mL	YZ15	16#	>500	<1.5	<±1
20mL	YZ15	25#	>500	<1.43	<±1
50 mL	YZ15	17#	>500	<2.11	<±1

Technical parameters	BT100F	BT300F	BT600F
Flow range (ml/min)	0.0001~720	0.006~1600	0.006~2900
Speed range(rpm)	0.1-150	0.1-350	0.1-600
Speed resolution (rpm)	0.1rpm		
Flow accuracy	<0.2%		
Power supply	AC100-240V 50/60Hz		
Power consumption	<40W	<50W	<60W
External control	Input level 5V,12V(standard),24V(optional) External control analog 0-5v(standard),0-10v,4-20mA(optional)		
Communication interface	Rs485 communication interface, MODBUS protocol is available.		
Operating condition	Temperature 0~40°C, Relative humidity <80%		
IP grade	IP31		
Dimensions(LxWxH)	226mm×150mm×238mm		
Weight	4.7 kg	4.9 kg	5.2 kg



BT100F/BT300F/BT600F Applicable Pump head and tubing, flow parameters

Drive type	Pump head	Channel number	Tubing(mm)	Single channel Flow rate (ml/min)
BT100F	DG (6rollers)	1, 2, 4	Wall0.8~1, ID≤3.17	0.00016~49
	DG (10rollers)	1, 2, 4	Wall0.8~1, ID≤3.17	0.00011~41
	DT10-18	1	13#14# Wall0.8~1, ID≤3.17	0.0002~82
	DT10-28	2	13#14# Wall0.8~1, ID≤3.17	0.0002~82
	DT10-48	4	13#14# Wall0.8~1, ID≤3.17	0.0002~82
	YZ15	1, 2	13#14#16#19#25#17#	0.0006~420
	YZ25	1, 2	15#24#	0.16~420
	YT15	1, 2	13#14#16#19#25#17#18#	0.0006~570
	YT25	1, 2	15#24#35#36#	0.17~720
	DT15-14	1	19#16#25#17#	0.05~400
	DT15-24	2	19#16#25#17#	0.05~400
	DT15-44	4	19#16#25#	0.05~260
BT300F	YZ15	1, 2	13#14#16#19#25#17#	0.006~990
	YZ25	1, 2	15#24#	0.16~990
	DT15-14	1	19#16#25#17#	0.05~930
	DT15-24	2	19#16#25#17#	0.05~930
	DT15-44	4	19#16#25#	0.05~610
	YT15	1, 2	13#14#16#19#25#17#18#	0.006~1300
	YT25	1	15#24#35#36#	0.16~1600
BT600F	YZ15	1, 2	13#14#16#19#25#17#	0.006~1700
	YZ25	1, 2	15#24#	0.16~1700
	YT15	1, 2	13#14#16#19#25#17#18#	0.006~2300
	YT25	1	15#24#35#36#	0.16~2900



Brief introduction

The pump adopts color LCD touch screen with intuitive and clear displaying interface, easy to operate. Mainly used for accurate measurement and distribution of fluid. If need high accuracy when dispensing, volume dispensing mode is available. If need high producing efficiency, time dispensing mode is more convenient. If want to separate fluid to number of equal parts, copy dispensing mode would be best. When working on flow mode, it is as same as intelligent flow peristaltic pump. The pump adopts intelligent temperature-control technology to reduce working noise. RS485 interface, as adopting the MODBUS communication protocol, the pump is easier to be connected with other equipments, such as computer, human machine interface and PLC.

Function and Feature

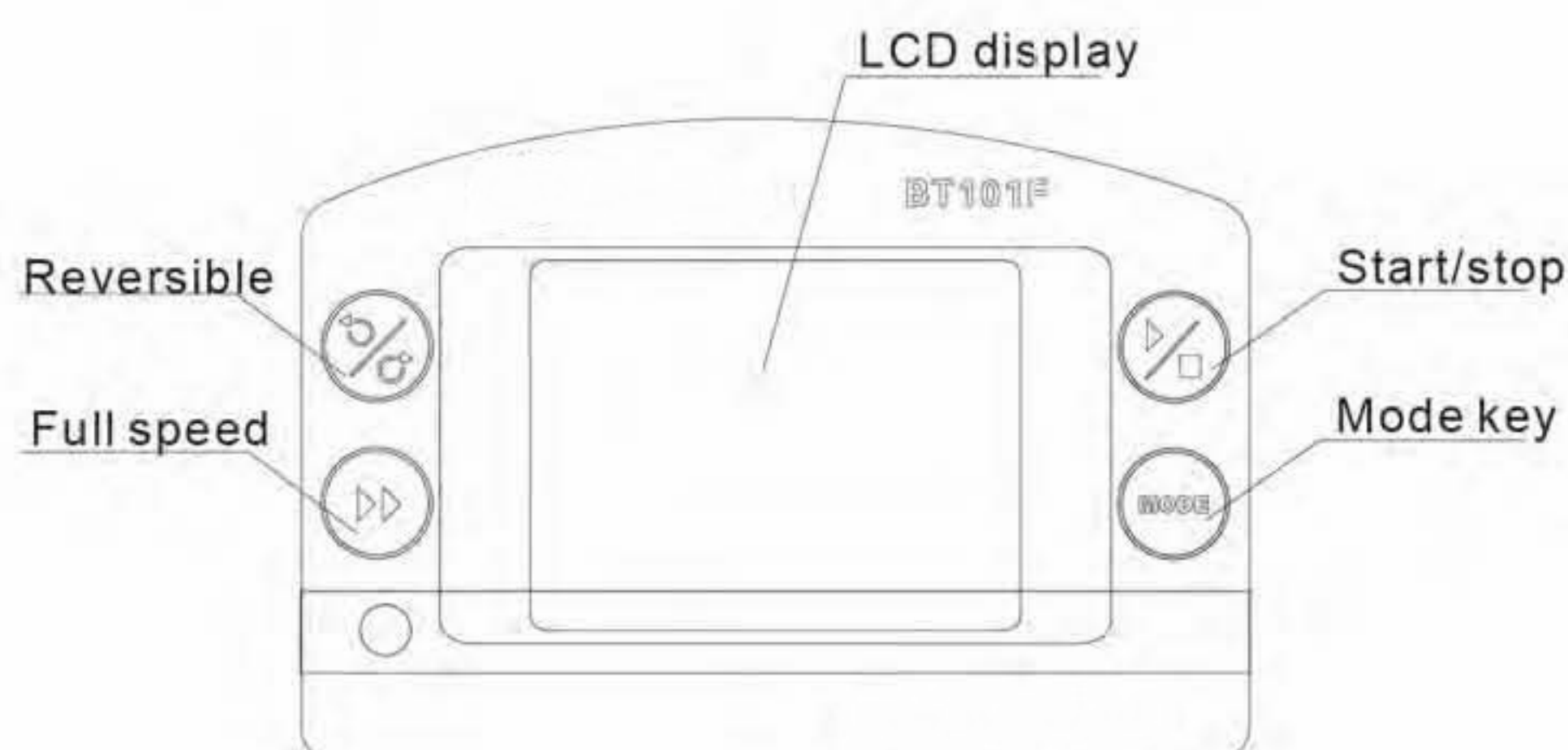
- Color LCD displaying, touch screen and keypad for operating.
- Three types of distributing mode: time dispensing mode; volume dispensing mode; copy dispensing mode.
- Automatically store five groups of working parameters.
- Precious controlling technology for motor's rotating angle increases the dispensing accuracy comparing to traditional time dispensing mode.
- Reversible direction, start/stop and full speed, state memory(power-down memory).

Technical parameters

Technical parameters	BT101F	BT301F	BT601F
Flow range (ml/min)	0.0001~720	0.006~1600	0.006~2900
Speed range (rpm)	0.1-150	0.1-350	0.1-600
Speed resolution (rpm)	0.1rpm		
Speed accuracy	<0.2%		
Power supply	AC100-240V 50/60Hz		
Power consumption	<30W	<40W	<,50W
External control	Input level 5V,12V(standard),24V(optional) External control analog 0-5v(standard),0-10v,4-20mA(optional)		
Communication interface	RS485 communication interface, MODBUS protocol is available.		
Operating condition	Temperature 0~40°C, Relative humidity <80%		
IP grade	IP31		
Dimensions (LxWxH)	257mm×180mm×197mm		
Weight	4.5 kg	4.7 kg	4.9 kg

BT101F/BT301F/BT601F Intelligent Dispensing Peristaltic Pump introduction

- Speed resolution is 0.1rpm.
- Display and control flow rate, accumulate dispensing volume automatically.
- Calibrating flow function.
- The operating expert system guides users setting parameters correctly.
- Intelligent temperature-control technology reduces working noise.
- External high-low electrical level controls the start/stop, reversible direction and easy dispensing function, optically coupled isolator; external analog adjusts the rotate speed.
- RS485 interface, MODBUS protocol is available, easy to connect other equipments.
- Internal double-deck isolation structure; circuit board with conformal coating makes it dust-proof and moisture-proof.
- Super anti-interference feature, wide input voltage range, acceptable for the complex power environment.
- ABS plastic housing, creative streamlined appearance.
- Can drive multi-channels and various types of pump heads.
- Optional footswitch or timer for dispensing fluid.



BT101F/BT301F/BT601F Applicable Pump head and tubing, flow parameters

Drive type	Pump head	Channel number	Tubing(mm)	Single channel Flow rate (ml/min)
BT101F	DG (6rollers)	1, 2, 4	Wall0.8~1, ID≤3.17	0.00016~49
	DG (10rollers)	1, 2, 4	Wall0.8~1, ID≤3.17	0.00011~41
	DT10-18	1	13#14# Wall0.8~1, ID≤3.17	0.0002~82
	DT10-28	2	13#14# Wall0.8~1, ID≤3.17	0.0002~82
	YZ15	1	13#14#16#19#25#17#	0.006~420
	YZ25	1	15#24#	0.16~420
	YT15	1	13#14#16#19#25#17#18#	0.006~570
	YT25	1	15#24#35#36#	0.16~720
BT301F	YZ15	1	13#14#16#19#25#17#	0.006~990
	YZ25	1	15#24#	0.16~990
	YT15	1	13#14#16#19#25#17#18#	0.006~1300
	YT25	1	15#24#35#36#	0.16~1600
BT601F	YZ15	1	13#14#16#19#25#17#	0.006~1700
	YZ25	1	15#24#	0.16~1700
	YT15	1	13#14#16#19#25#17#18#	0.006~2300
	YT25	1	15#24#35#36#	0.16~2900



DG-1(6,10rollers)



DG-2(6,10rollers)



DG-4(6,10rollers)



DT10-28



YZ15(25)



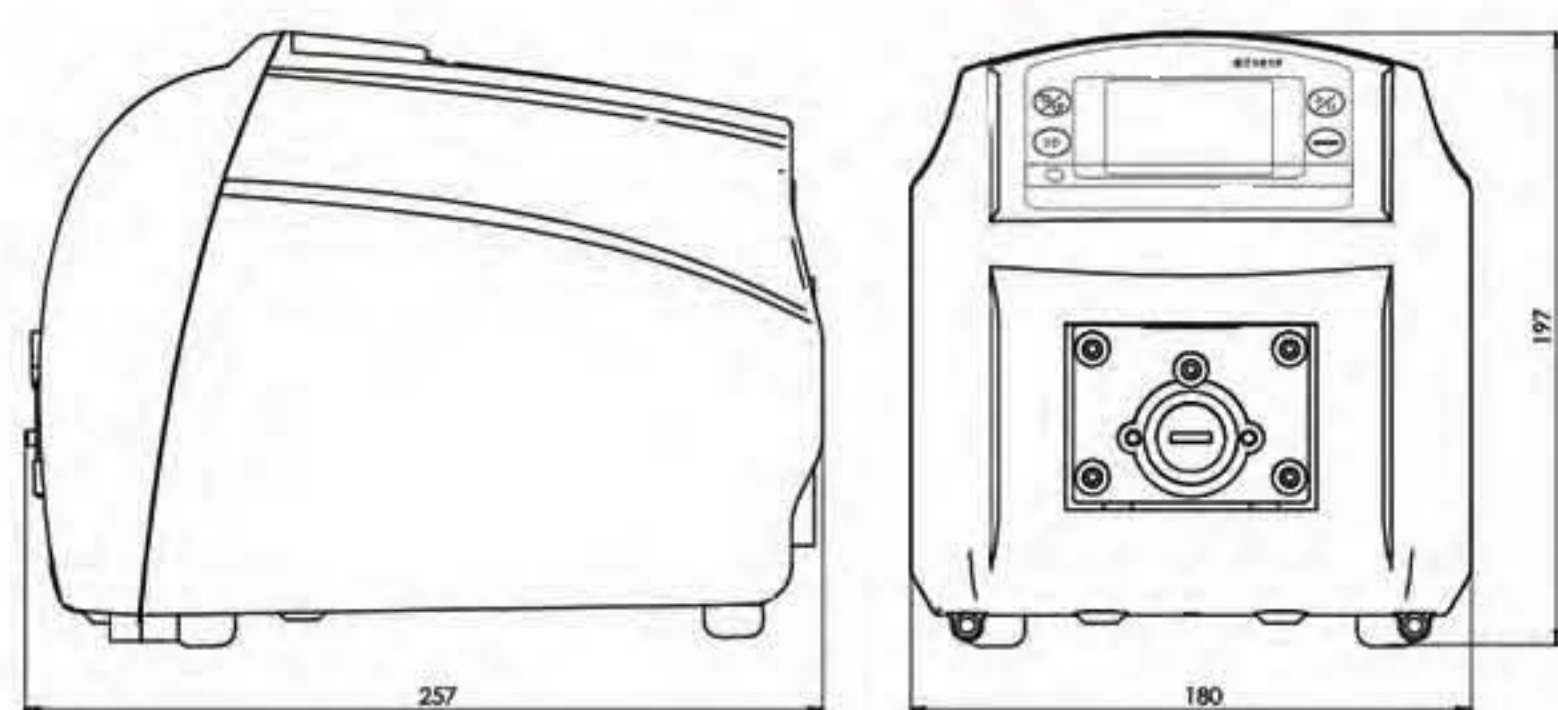
YT15(25)

BT101F/BT301F/BT601F
Drive with different pump heads combination

Filling application reference table

Filling fluid volume	Recommend the pump head	Recommend the tube	Speed (RPM)	Filling time (second)	Reliability error (%)
50uL	DG6-1	0.25×0.89	>90	<6.66	<±2
0.1mL	DG6-1	0.5×0.8	>90	<3.03	<±2
0.2mL	DG6-1	0.5×0.8	>90	<6.06	<±1
0.3mL	YZ15	13#	>500	<0.6	<±2
0.5mL	YZ15	13#	>500	<1	<±1
0.8mL	YZ15	13#	>500	<1.6	<±1
1mL	YZ15	13#	>500	<2	<±1
2mL	YZ15	14#	>500	<1.1	<±1
3mL	YZ15	14#	>500	<1.65	<±1
5mL	YZ15	19#	>500	<1.68	<±1
8mL	YZ15	16#	>500	<1.2	<±1
10mL	YZ15	16#	>500	<1.5	<±1
20mL	YZ15	25#	>500	<1.43	<±1
50 mL	YZ15	17#	>500	<2.11	<±1

Appearance size





Technical parameters

- Single channel Flow range (mL/min) : 0.00011~1700mL/min
- Speed range (rpm) : 0.1~150 rpm/min
- Speed resolution (rpm) : 0.1rpm
- Speed accuracy : <0.5%
- Power supply: AC 100~240V 50Hz/60Hz
- Power consumption: <60W
- External control : Input level 5V, 12V(standard), 24V(optional) . xExternal control analog 0~5V(standard), 0~10V, 4~20mA (Optional)
- Communication interface : RS485 communication Interface, MODBUS protocol is available
- Operating condition : 0 ~ 40°C
- Relative humidity : <80% ;
- IP grade : IP31 ;
- Dimensions (LxWxH): 285mm×150mm×195mm ;
- Weight : 6.5kg ;

BT100F-1 Intelligent Dispensing Peristaltic Pump Function and Feature

- Color LCD displaying, touch screen and keypad for operating.
- Four types of working mode: flow rate mode, volume dispensing mode, time dispensing mode, copy dispensing mode are available.
- Three dispensing modes store five groups of working parameters automatically.
- Reversible direction, start/stop and full speed, state memory (power-down memory).
- Display and control flow rate, accumulate dispensing volume.
- Speed resolution is 0.1rpm.
- Expert guide calibration flow function.
- Remote infrared controlling function.
- The operating expert system guides users setting parameters correctly.
- Intelligent temperature-control technology reduces working noise.
- External high-low electrical level controls the start/stop, reversible direction and easy dispensing function, optically coupled isolator; External analog adjusts the rotate speed.
- RS485 interface, MODBUS protocol is available, easy to connect other equipments.
- Internal double-deck isolation structure. circuit board with conformal coating makes it dust-proof and moisture-proof.
- Super anti-interference feature, wide input voltage range, acceptable for the complex power environment.
- Stainless steel housing, easy to clean, excellent resistance to the corrosion of the acid, alkali, sodium and the organic solvents.
- Large torque output, can drive multi-channels and various types of pump heads.
- Optional footswitch or timer for dispensing fluid.



Drive type	Pump head	Channel number	Tubing(mm)	Single channel Flow rate(ml/min)
BT100F-1	DG (6rollers)	8 , 12 , 16 , 24	Wall0.8~1 , ID≤3.17	0.00016~49
	DG (10rollers)	8 , 12 , 16 , 24	Wall0.8~1 , ID≤3.17	0.00011~41
	DT10-88	8	13#14# Wall0.8~1 , ID≤3.17	0.0002~82
	YZ15	1 , 2	13#14#16#19#25#17#	0.006~420
	YZ25	1 , 2	15#24#	0.16~420
	YT15	1 , 2 , 4	13#14#16#19#25#17#18#	0.006~570
	YT25	1 , 2 , 4	15#24#35#36#	0.16~720
	KZ25	1, 2	15#24#35#36#	0.25~1200
	DT15-14	1	19#16#25#17#	0.05~400
	DT15-24	2	19#16#25#17#	0.05~400
	DT15-44	4	19#16#25#	0.05~260
	DMD25	1	15#24#35#36#	0.3~1700





WT300F/WT600F Intelligent Dispensing Peristaltic Pump

WT300F/WT600F intelligent dispensing peristaltic pump adopts color LCD touch screen with intuitive and clear displaying interface. Four working model, Flow rate mode, volume dispensing mode, time dispensing mode, copy dispensing mode are suitable for different working requirements. Brushless servo motor drive with large torque, no maintenance. The pump adopts intelligent temperature-control technology to reduce working noise. Adopting the standard communication protocol, the pump is easier to be connected with other equipments. With intelligent temperature control fan, reduce noise. Stainless steel housing easy to clean, corrosion resistant.

Filling application reference table

Filling fluid volume	Recommend the pump head	Recommend the tube	Speed (RPM)	Filling time (second)	Reliability error (%)
30mL	DMD25	35#	>300	<0.7	<±1
50mL	DMD25	36#	>300	<0.85	<±1
80mL	KZ25	36#	>500	<0.96	<±1

WT300F/WT600F Drive with different pump heads combination



WT300F/WT600F Applicable Pump head and tubing, flow parameters

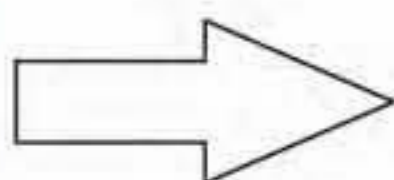
Drive type	Pump head	Channel number	Tubing(mm)	Single channel Flow rate(ml/min)
WT300F	YZ15	1, 2, 4	13#14#16#19#25#17#	0.006 ~ 990
	YZ25	1, 2, 4	15#24#	0.16 ~ 990
	YT15	1, 2, 4	13#14#16#19#25#17#18#	0.006 ~ 990
	YT25	1, 2, 4	15#24#35#36#	0.16 ~ 990
	DT15-14	1	19#16#25#17#	0.05 ~ 930
	DT15-24	2	19#16#25#17#	0.05 ~ 930
	DT15-44	4	19#16#25#17#	0.05 ~ 610
	KZ25	1, 2	15#24#35#36#	2.5 ~ 3500
	DMD25	1	15#24#35#36#	3 ~ 4000
WT600F	YZ15	1, 2	13#14#16#19#25#17#	0.06 ~ 1700
	YZ25	1, 2	15#24#	1.7 ~ 1700
	YT15	1, 2	13#14#16#19#25#17#18#	0.06 ~ 2300
	YT25	1, 2	15#24#35#36#	1.7 ~ 2900
	KZ25	1	15#24#35#36#	2.5 ~ 6000



WG600S Industrial Speed-Variable Peristaltic Pump Introduction

The pump is suitable for transferring large amount of fluid in industry. It can cascade two pump heads. Brushless motor drive with large torque, no maintenance. Has basic functions such as reversible direction, start/stop, full speed (fast cleaning) and speed-variable. RS485 interface, as adopting the MODBUS communication protocol, the pump is easier to be connected with other equipments, such as computer, human machine interface and PLC.

Two channels
picture



Function and Feature

- Stainless steel housing.
- Rotary encoder controls running speed.
- Applicable pump head: YZ35, 2xYZ35.
- Single channel Flow range: 0.4-13(L/min).
- Speed range: 30-600rpm.
- Speed resolution: 1rpm.
- Four-figure digital LED indicator displays working speed.
- Brushless motor drive, free maintenance.
- Stainless steel housing, easy to clean, excellent resistance to the corrosion of the acid, alkali, sodium and the organic solvents.
- The circuit board with conformal coating makes it dust-proof and moisture-proof.
- External high-low electrical level controls the start/stop, reversible direction and easy dispensing function, optically coupled isolator; External analog adjusts the rotate speed.
- RS485 interface, MODBUS protocol is available, easy to connect other equipments.



WG600S Applicable Pump head and tubing, flow parameters

Drive type	Pump head	Channel number	Tubing(mm)	Single channel Flow rate(L/min)
WG600S	YZ35	1	73# 82#	0.4~13
	2xYZ35	2	73# 82#	0.4~13

The parameters

- Single channel Flow range: 0.4~13 L/min.
- Single channel Flow accuracy: <3%.
- Speed range: 30~600 rpm.
- Speed resolution: 1rpm.
- Power supply: AC100-240V 50/60Hz
- Power consumption: <300W.
- External control: Input level 5V, 12V (standard). 24V(optional).
- Communication interface : RS485 communication interface, MODBUS protocol is available.
- Operating condition : Temperature 0 ~ 40 °C. Relative humidity <80%.
- IP grade: IP31.
- Dimensions(LxWxH): 340x235x175(mm)
- Weight: 13kg.

WG600F Intelligent Dispensing Peristaltic Pump

The pump is suitable for transferring and dispensing large amount of fluid in industry. Brushless servo motor drive with large torque, no maintenance, high rotating accuracy. The pump has three types of distributing mode: time dispensing mode, volume dispensing mode; copy dispensing mode, meets all kinds of complex dispensing requirements. RS485 interface, as adopting the MODBUS communication protocol, the pump is easier to be connected with other equipments, such as computer, human machine interface and PLC.

Patented product

Function and Feature

- Applicable pump head: YZ35, 2xYZ35.
- Brushless servo motor drive with large torque, no maintenance, high rotating accuracy.
- The circuit board with conformal coating makes it dust-proof and moisture-proof.
- Color LCD displaying, touch screen and keypad for operating.
- Reversible direction, start/stop and full speed, state memory (power-down memory).
- Speed resolution: <0.1rpm, speed accuracy: <0.5%
- Calibrating flow function.
- Three types of distributing mode: time dispensing mode; volume dispensing mode, copy dispensing mode.
- Automatically store five groups of working parameters.
- The operating expert system guides users setting parameters correctly.
- Remote infrared controlling function.
- Super anti-interference feature, wide input voltage range, acceptable for the complex power environment.
- Stainless steel housing, easy to clean, excellent resistance to the corrosion of the acid, alkali, sodium and the organic solvents.
- External high-low electrical level controls the start/stop, reversible direction and easy dispensing function, Optically coupled isolator. External analog adjusts the rotate speed.
- RS485 interface, MODBUS protocol is available, easy to connect other equipments.

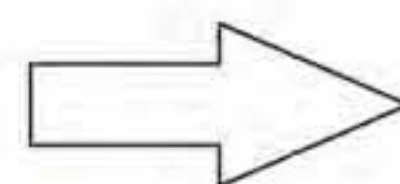


The parameters

- Single channel Flow range: 0.01~13 L/min.
- Speed accuracy: < 0.5%.
- Speed range: 0.1~600 rpm.
- Speed resolution: 0.1rpm.
- Power supply: AC100-24V 50/60Hz
- Power consumption: < 300W.
- External control: Input level 5V, 12V(standard), 24V(optional).
- Communication interface: RS485 communication interface, MODBUS protocol is available.
- Operating condition: Temperature 0 ~ 40°C
Relative humidity <80%.
- IP grade: IP31.
- Dimensions(LxWxH): 350x235x315(mm).
- Weight: 15kg.

Filling application reference table

Filling fluid volume	Recommend the pump head	Recommend the tube	Speed (RPM)	Filling time (second)	Reliability error (%)
100mL	YZ35	73#	>500	<0.89	<±1
200mL	YZ35	82#	>500	<1.13	<±1
300mL	YZ35	82#	>500	<1.7	<±1
500mL	YZ35X2	82#	>500	<1.41	<±1



Two channels picture



WG600F Applicable Pump head and tubing, flow parameters

Drive type	Pump head	Channel number	Tubing(mm)	Single channel Flow rate(L/min)
WG600F	YZ35	1	73# 82#	0.01~13
	2xYZ35	2	73# 82#	0.01~13

Batch Transferring Pump JP300S

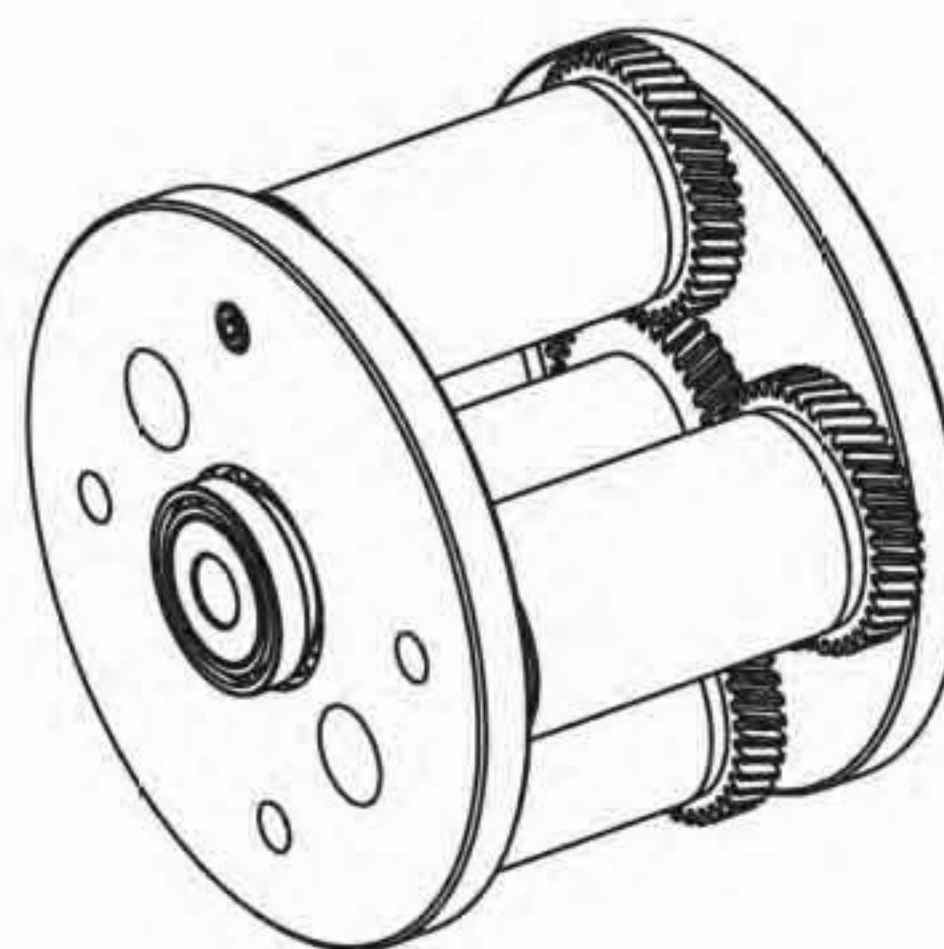
Batch Transferring Pump is suitable for the tube wall thickness of 4.8mm, 6.3mm. Maximum flow rate is 35L/min, the largest pressure is 0.3Mpa. It has reasonable tight composition, easy to load the tube. The roller adopts planetary gear transmission, safe and reliable, at the same time it can prolong the tubing life.

Function and Feature

- Flow range is wide, can reach 2m³/hour, suitable for batch transferring.
- The pressure of transmission is high, suitable for high viscosity and high-lift materials.
- It adopts planetary gear design, safe and reliable, with high-power.
- roller driving force rotation, rolling friction with tube prolong tubing life.
- Open the lid the pump stop running, safe and reliable.
- The pressed tube gap is adjustable.
- AC motor with frequency control of motor speed control, it can be achieved networking operation with PLC, IPC and computer.

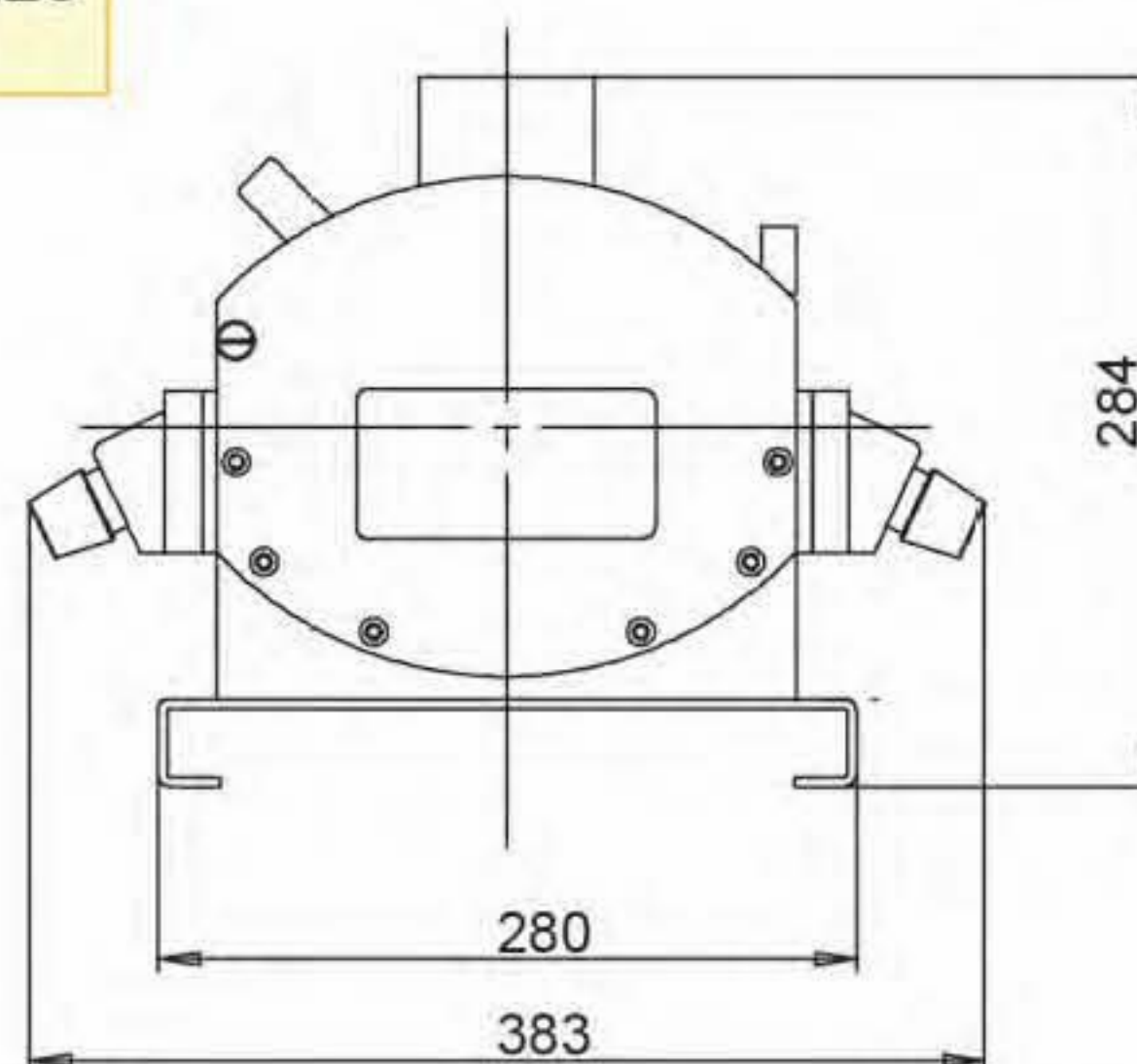
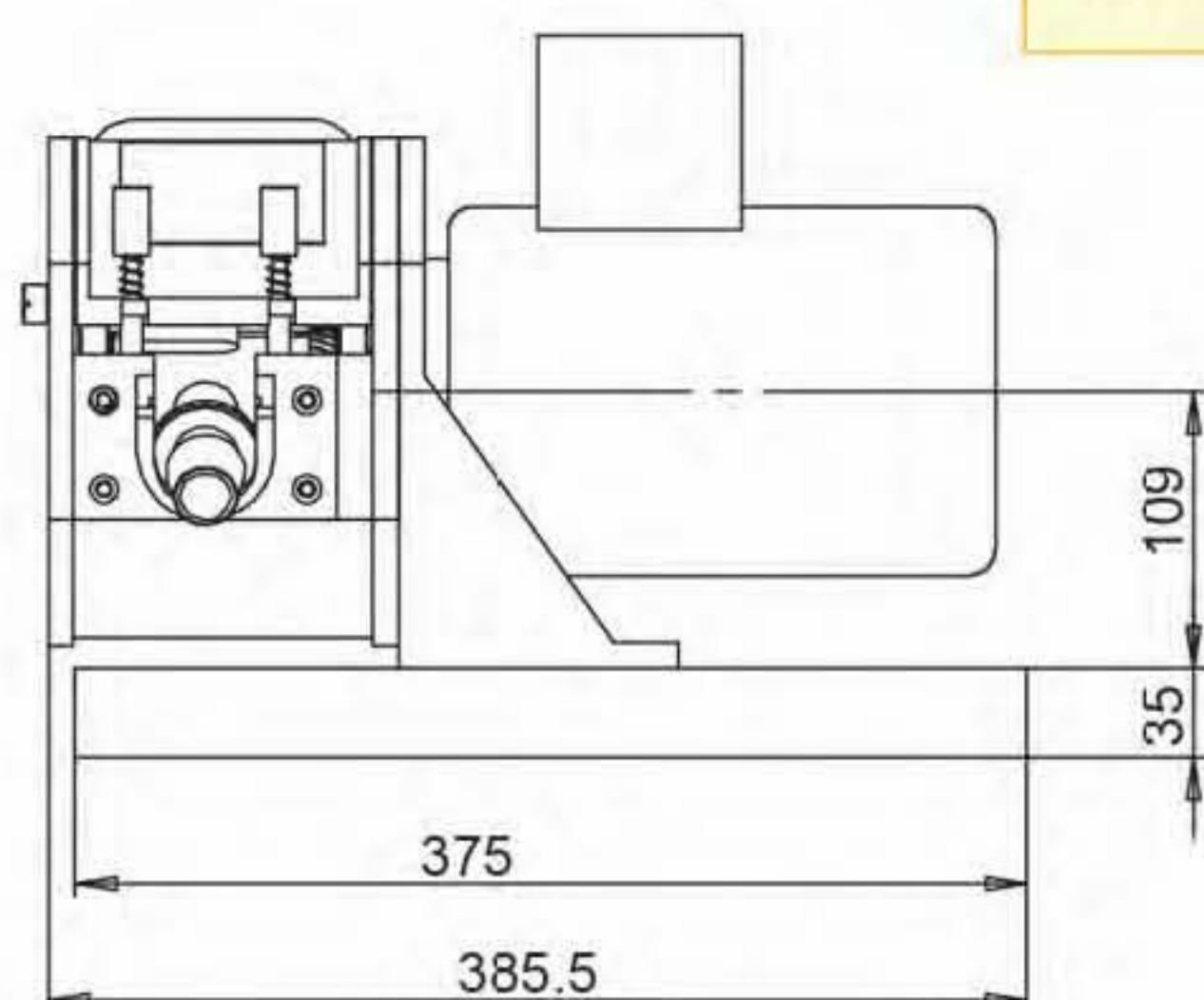
The parameters

1. Flow rates: Maximum 35L/min, can reach 2m³/hour
2. Suitable tubing: 88# 92# 191# 193#
3. Shell material: Aluminium alloy
4. Roller: 304 stainless steel
5. Speed range: 0-350rpm
6. Gap adjustment: Adjustable
7. Operating condition temperature: 0 ~ 60 °C
8. Chemical compatibility: Resist acid-base, organic solvent.
9. Power supply: AC 380V ±20%/400W
10. IP grade: IP54



Planetary gear design effectively prolong the life of the tube

Appearance size





DS600-12



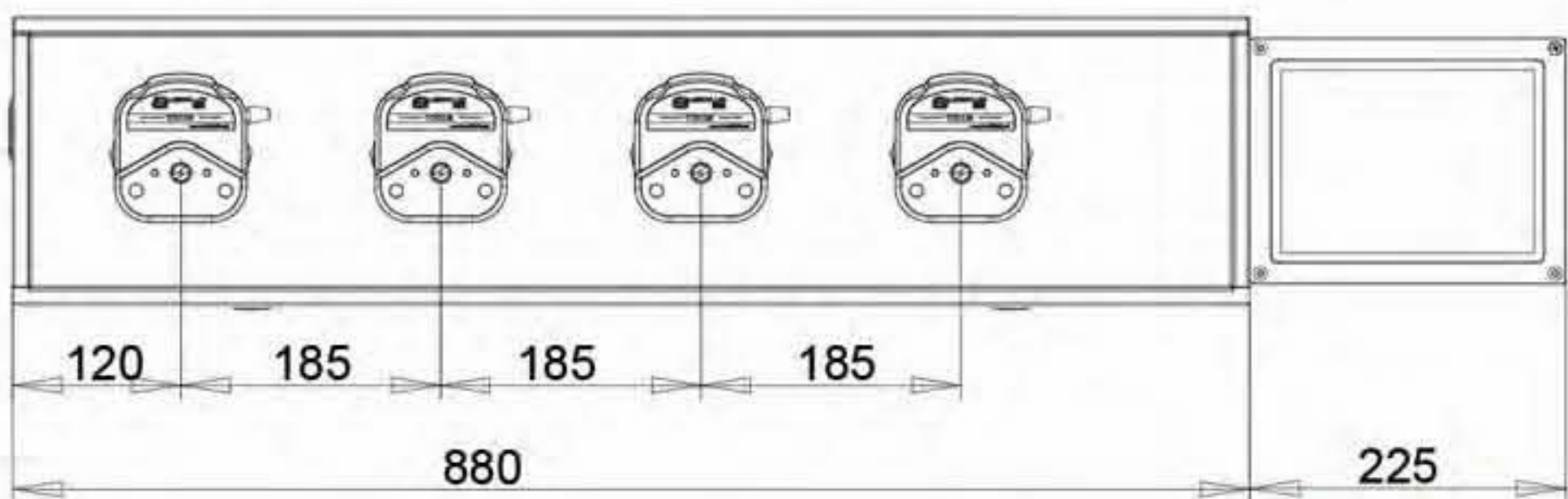
DS600-5

Function and Feature

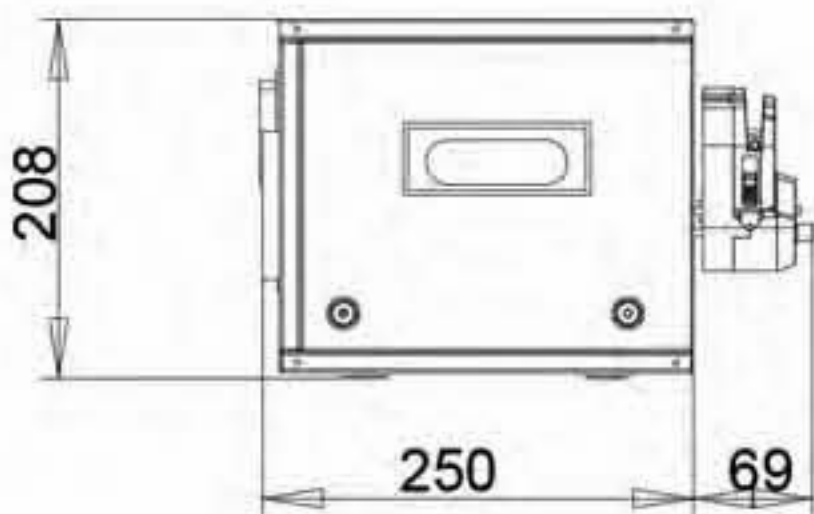
- Stainless steel housing, easy to clean, excellent resistance to the corrosion of the acid, alkali, sodium and the organic solvents.
- Color LCD touch screen with intuitive and clear displaying interface, easy to operate.
- Unique intelligent calibration system, greatly reducing the workload of users and improving efficiency.
- Can cascade for more channels
- Applicable pump head: YZ15, Yz25
- Volume range: 0.1-500 ml. Speed range:0.1-600rpm
- Dispensing time: 0.1-99.99 second.
- Dispensing accuracy: up to 0.5%.
- Speed resolution: 0.1rpm.
- Fine adjustment on line, it is convenient for users adjusting flow rate as tubing's aging.
- With offline and online function for each channel.
- The circuit board with conformal coating makes it dust-proof and moisture-proof.
- Fourt each channel will stop working when lack of the bottle.

The parameters

Technical parameters	DS600
Filling Volume (ml)	0.5-500
Speed range (rpm)	0.1-600
Speed resolution (rpm)	0.1rpm
Dispensing volume error	<0.5%
Power supply	AC220V ± 10% 50/60Hz(standard) AC110V± 10% 50Hz/60Hz(optional)
Power consumption	<240W
External control	External bottle-lack signal and start signal
Communication interface	RS485 communication interface, MODBUS protocol is available
Operating condition	Temperature 0~40℃ ; Relative humidity <80%
IP grade	IP31
Dimensions (L×W×H)	940mm×230mm×247mm
Weight	25 kg



Appearance size



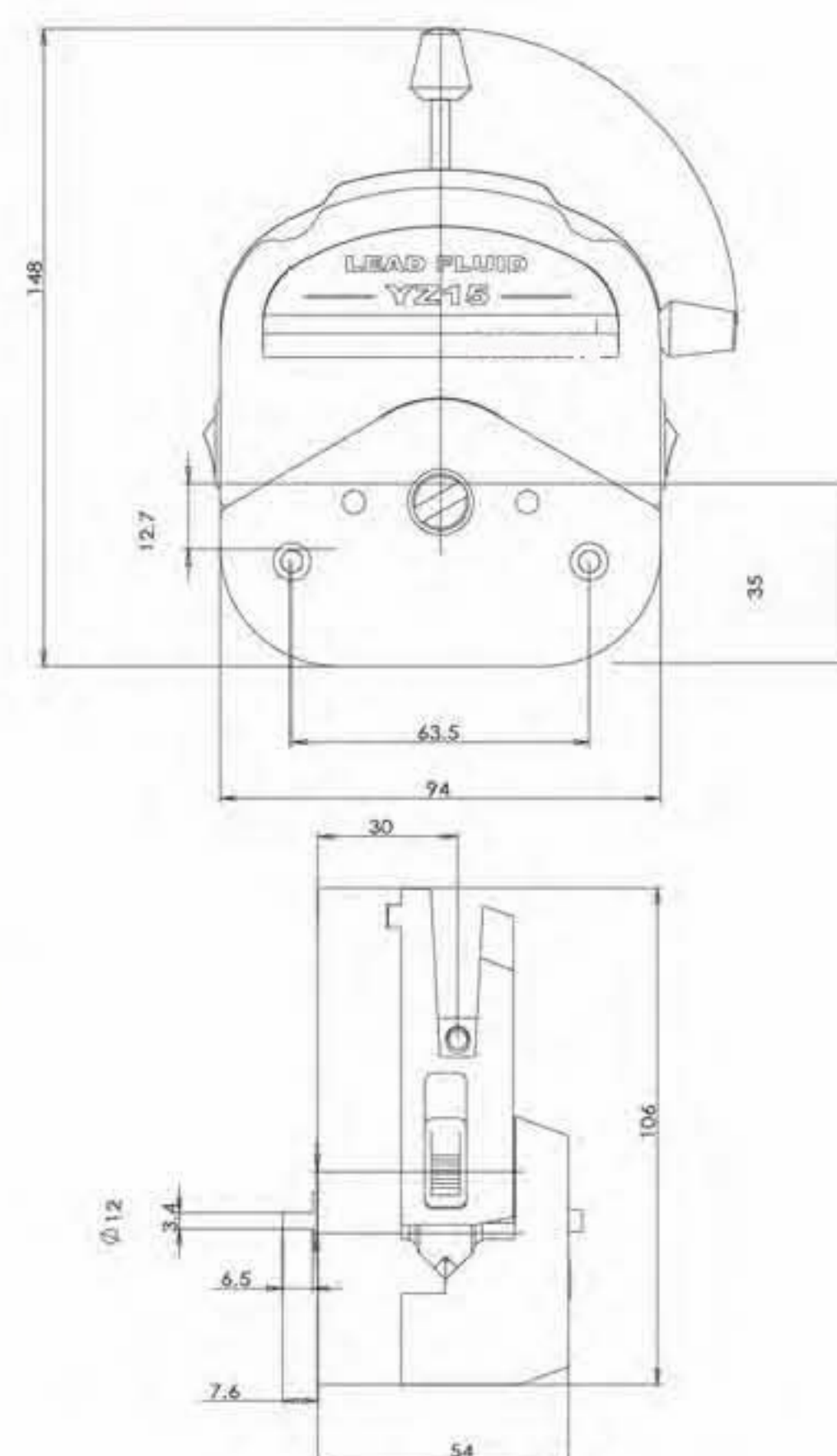
DS Series Multi Channels Dispensing System Applicable Pump head,tubing,flow Parameters

Drive type	Pump head	Tubing(mm)	Single channel dispensing volume (ml/min)
DS600-X	YZ15	13# 14# 16# 19# 25# 17#	0.5-500mL
	YZ25	15# 24#	0.5-370mL

YZ Series Pump Head

Features: Load various tubing. easy-load type, compact structure, can be mounted in tandem (up to 4). pump head with PPS material is resistance to organic solvents and other corrosion liquid, it is solid and durable.

Appearance size

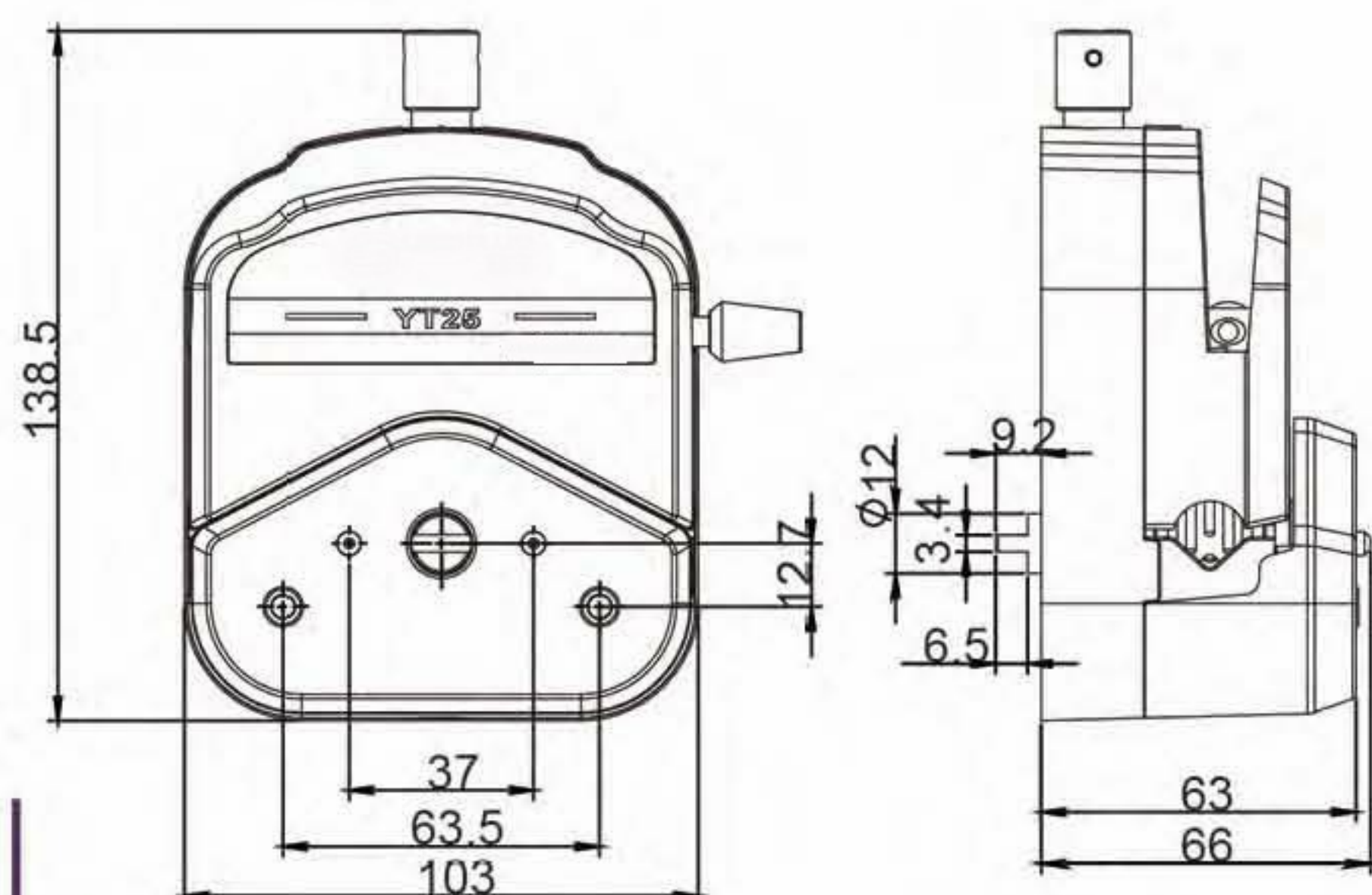


Model	Tubing	Speed range (rpm)	Flow range (ml/min)	Roller materials	Number Of rollers	Housing materials	Color	Weight (kg)
YZ15	13#14#	0-600	0.006 ~1700	304 Stainless steel	3/6	PPS PES	Black	0.4
	19#16#						White	
	25#17#						White	
YZ25	15#	0-600	0.1667 ~1700	304 Stainless steel	3/6	PPS PES	Black	0.4
	24#						White	

YT Series Easy-Load Pump Head

YT series pump heads are suitable for a variety of specifications tubes. Simple and easy to replace the tubing, compact structure and reasonable, which can realize multiple pump heads. PPS material of pump shell is resistance to organic solvents and other corrosive liquids, strong and durable. The ways between pressure tube have fixed and adjustable, flexible choice.

Appearance size



Specifications

- Flow range: 0.006~2900mL/min
- Applicable tubes: YT15:13#, 14#, 19#, 16#, 25#, 17#,18#
YT25:15#, 24#, 35#, 36#.
- Shell material: PPS
- Roller material: 304 stainless steel
- Roller number: 4
- Gap adjustment: Micro-adjustment
- Cascade multi-pump head
- Colour: Black
- Working temperature: work continuously under 200 °C.
- Chemical compatibility: resistant to acid, alkali and organic solvents



YZ35 Pump Head:

Features: Load various tubing; easy-load type, compact structure, can be mounted in tandem(up to 2). pump head with PPS material is resistance to organic solvents and other corrosion liquid, it is solid and durable.

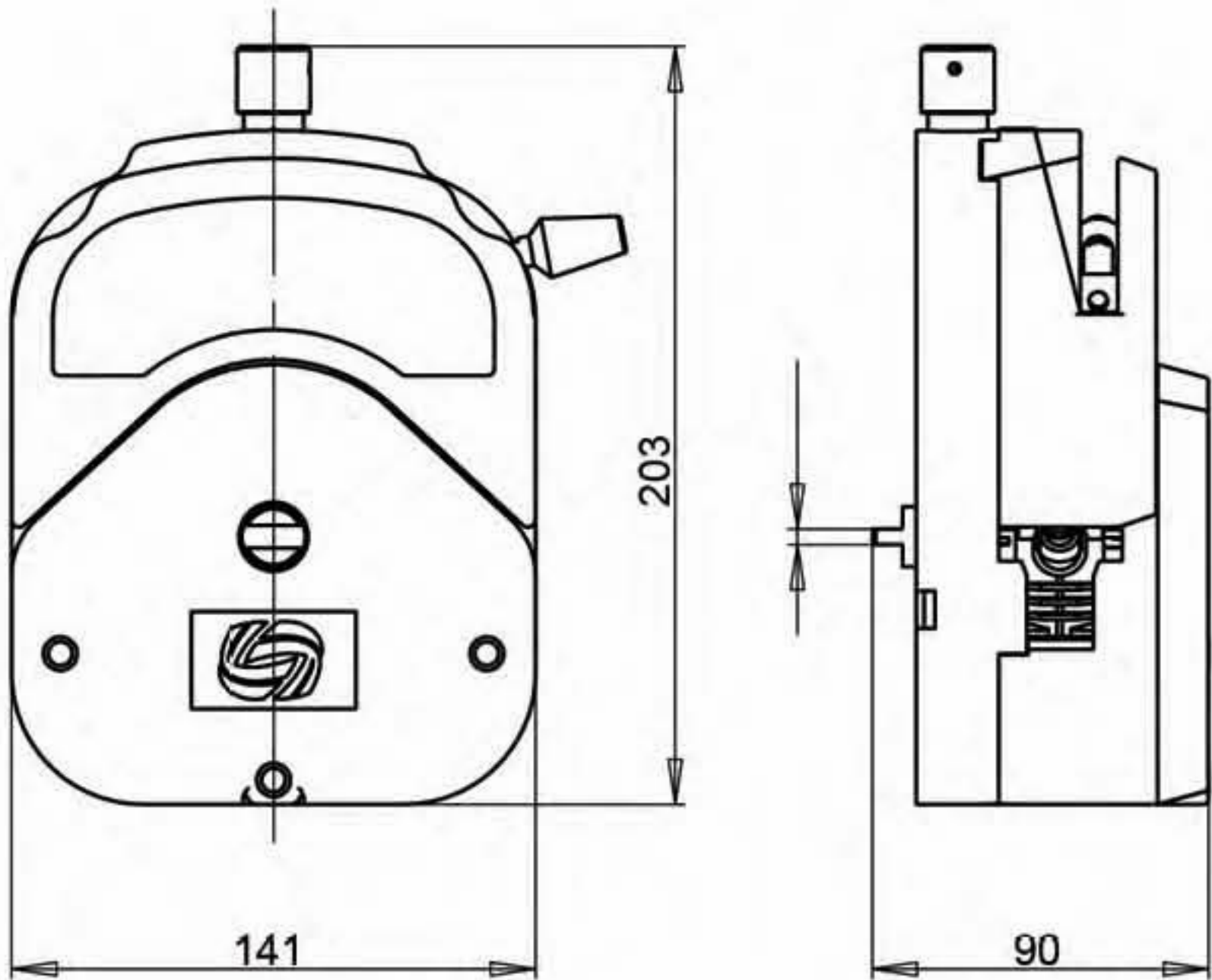
Specifications

- Flow range: 100 ~ 13,000ml/min
- Applicable tubes: 73 #, 82 #
- Shell material: PPS
- Roller material: 304 stainless steel.
- Roller number: 3
- Gap adjustment: Micro-adjustment.
- Working temperature: work continuously under 200 °C.
- Chemical compatibility: resistant to acid, alkali and organic solvents

Special note

New loading structure of tubing, tube does not deviation in the process of operation

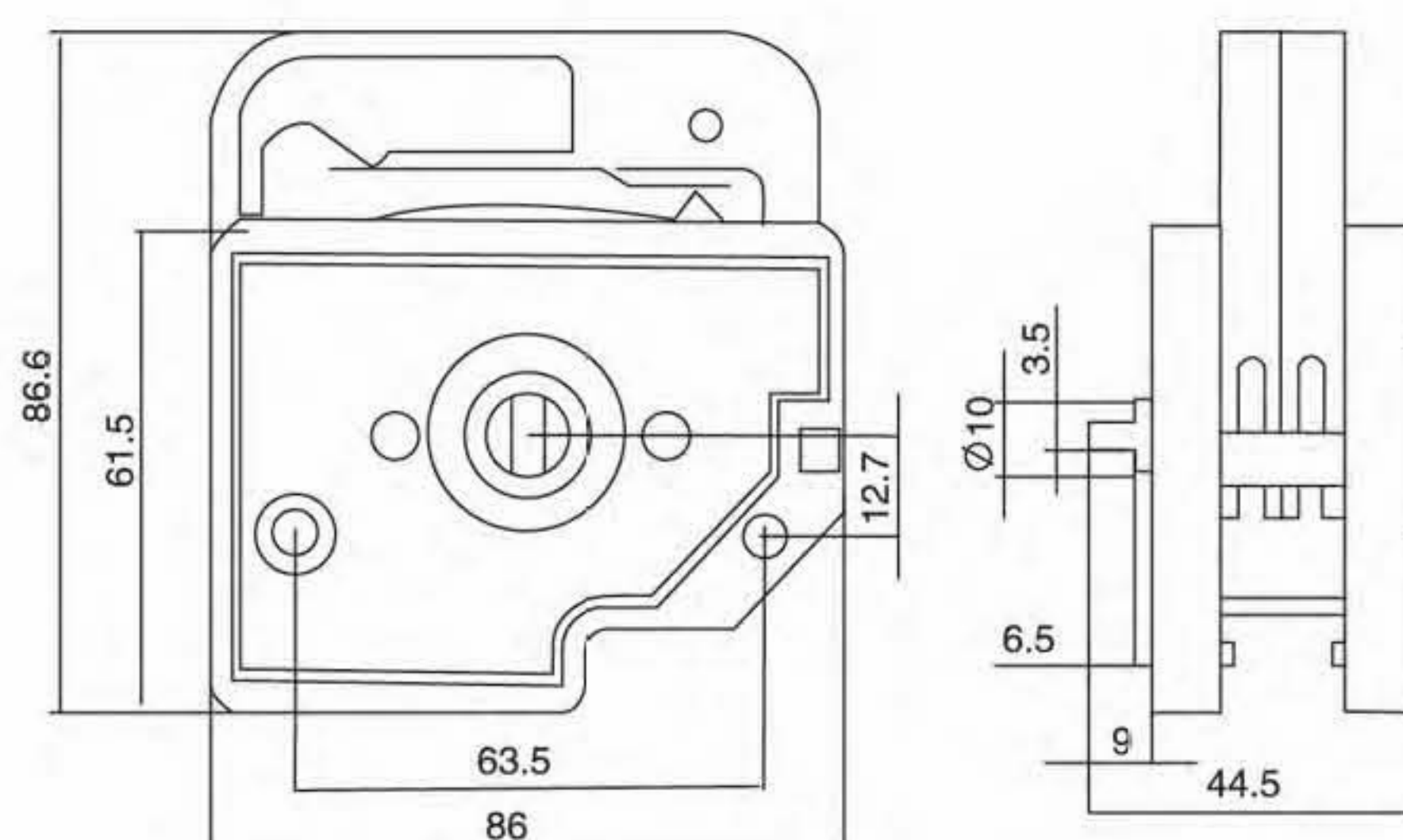
Appearance size



DG Series Pump Head

NEW


Appearance size



Special note

When transport corrosive liquid users need to change different material of tube, for details please consult the Lead Fluid.

DG Series Pump Head

Features: DG series are designed for small flow and multi-channel transmission, easy to replace and fix tubing. Self adapting spring adjusts pressing gap automatically according to tubing. The rollers are made of 304 stainless steel. A whole pump head consists of three parts: frame, roller device and cartridge. According to the numbers of channel, there are DG1, DG2, DG4, DG8, DG12, DG16, DG24 series at present.

DG Series card Pump Head

DG-1

DG-2

DG-4

DG-8

DG-12

Gard


Lead Fluid DG series pump head can use two types of cartridge

1.Spring Cartridge

Adopts the special alloy spring mechanism, Self adapting different wall thickness tubes, can effectively prevent operating overpressure or loose. Through the consistency of the spring tension, to ensure consistent of the pressing gap, reducing flow error between each channel.

Spring Cartridge


2.Smart cartridge

Adjust the color code for the ratchet wheel positions. and the occlusion gap be fine tuned, to fit the different material and wall thickness tubes. at the same time, the output pressure is changed. General condition, please use the recommended ratchet wheel position, to keep long life of tube.

Smart cartridge

Trigger gear

color code


DMD25 High-Precision & Low-Pulse Pump Head

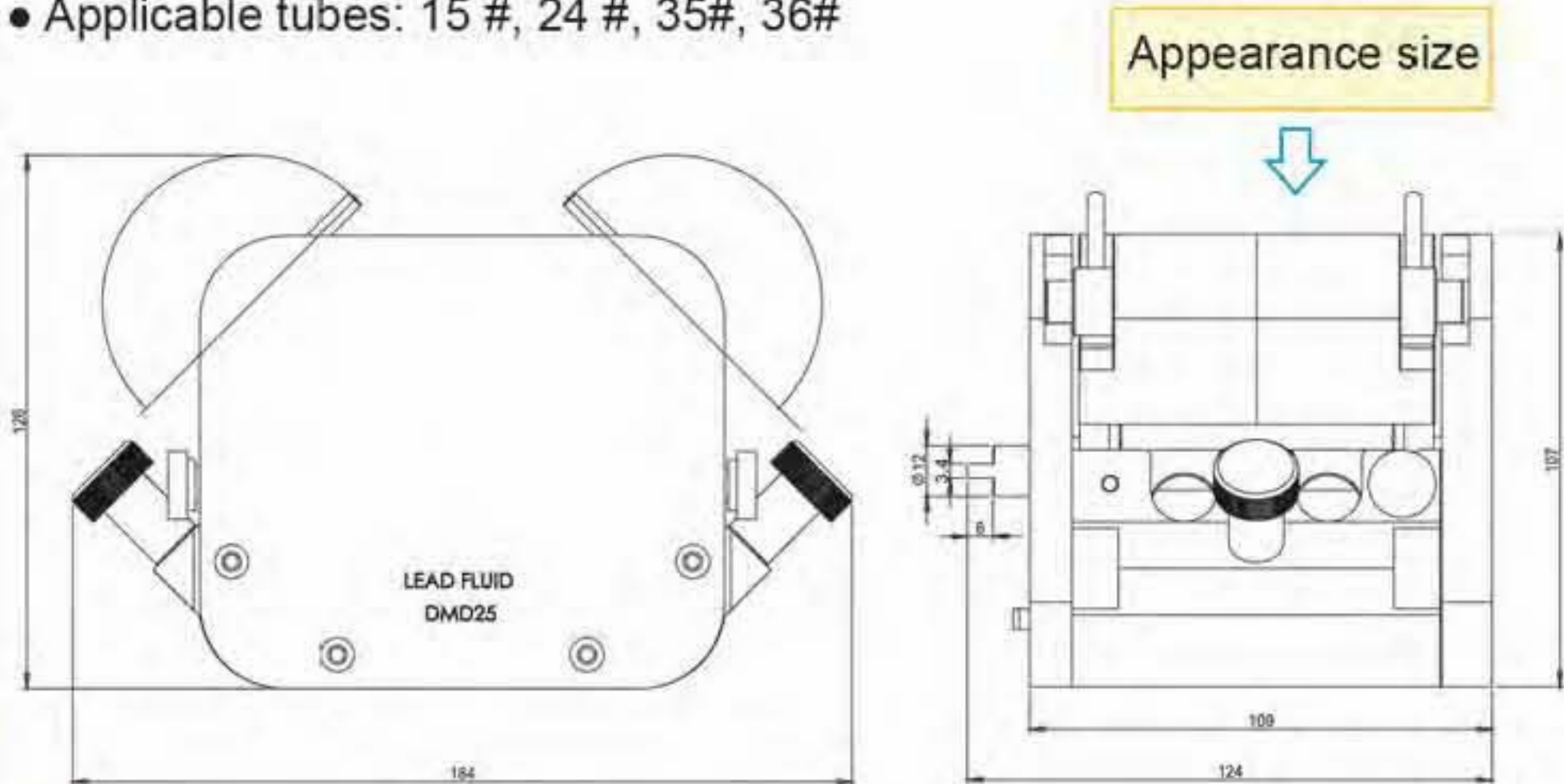
DMD 25 is designed for low-pulse transmission and precious dispensing. Special complementary phase design decreases transmitting pulse and improves dispensing accuracy, load tubes in "Y" structure. Unique tubing-fixing structure prevents tubing's wears caused by vibration. the shell adopts aluminium-magnesium alloy and POM materials, high mechanical strength and reliable performance.

Specifications:

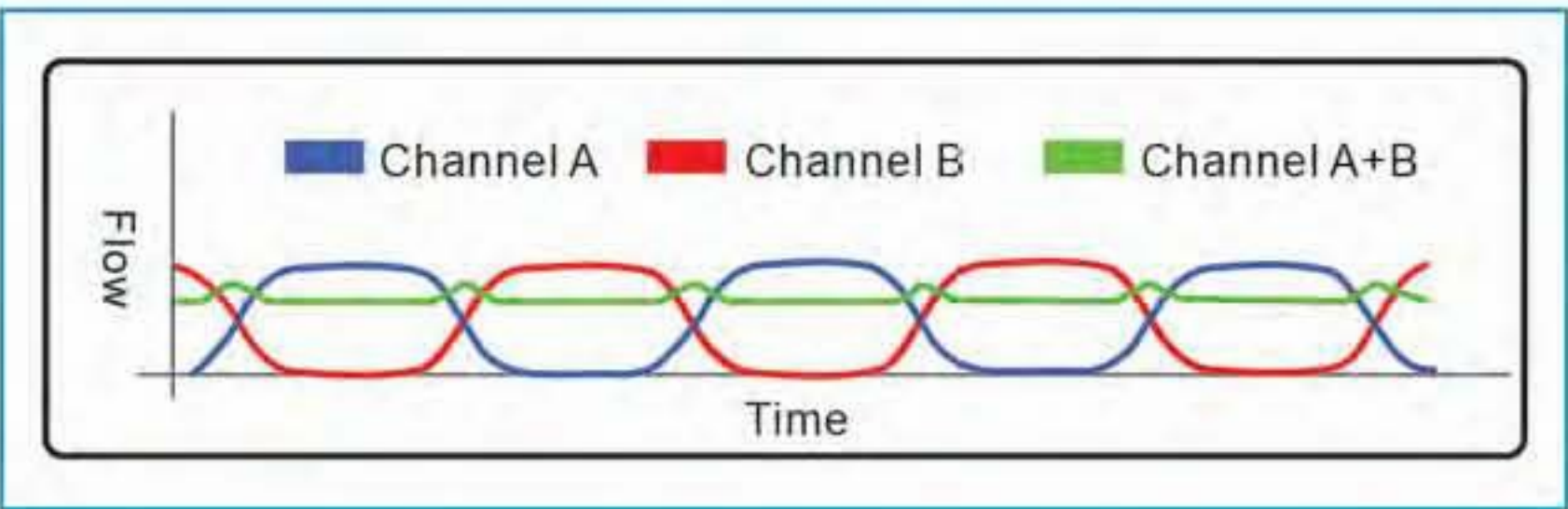
- Flow range: ≤4000mL/min
- Speed range: ≤350 rpm
- Shell material: aluminium-magnesium alloy, POM
- Roller material: 304 stainless steel
- Roller number: 6
- Tubing-fixing adjustment: manual
- Gap adjustment: fixed
- Applicable tubes: 15 #, 24 #, 35#, 36#



DMD25 pump head adopts double press blocks with complementary phase structure, the fluid from channel A and B are complementary, so this special device can decrease transmitting pulse and improve dispensing accuracy efficiently.



DMD25 working elements



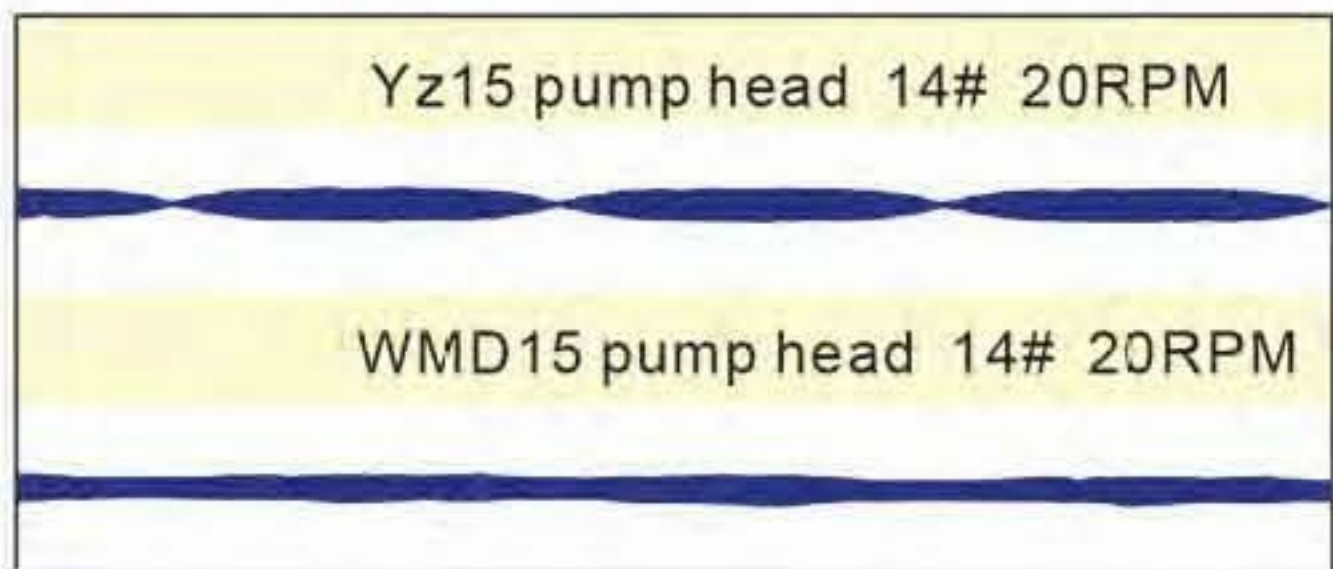
WMD15 Micro pulsation pump head

Be suitable for many kinds of tube with different diameter. The material of the cover of the pump is aluminum alloy, anodic oxidation after machined minutely, sturdy and durable. excellent chemical resistance, especially different organic solvent. can transfer the fluid continuously and more excellent effect. Many pump heads can be used in series.

Specifications:

- Flow range: ≤1700mL/min
- Speed range: ≤ 600rpm
- Applicable tubes:13#, 14#, 19#, 16#, 17#, other tubes can be customized.
- Shell material: aluminium-magnesium alloy
- Roller material: stainless steel 304
- Roller number: 3
- Gap adjustment: fixed
- Cascade multi-pump head
- Working temperature: work continuously under 100 °C.
- Chemical compatibility: resistant to acid, alkali and organic solvents

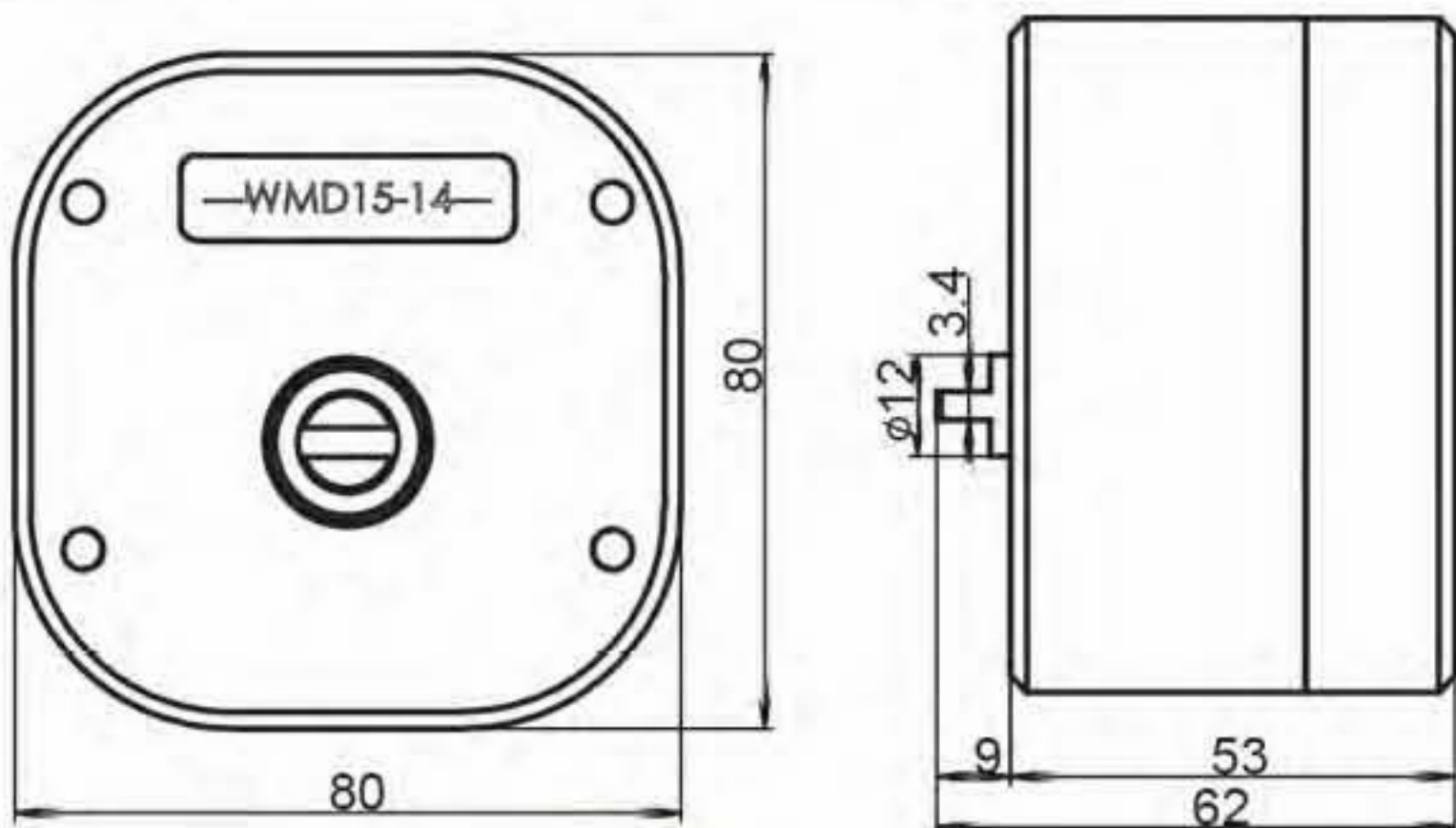
Micro pulsation pump head coating contrast figure .



Special note

Pulse video please contact with Lead Fluid.

Appearance size



KZ25 Pump Head

KZ25 pump head is suitable for the big flow transmission, up to 6000 mL/min, can load various tubing. Replacing tubing only takes several seconds, easy to operate. can be mounted cascade(up to 2).The rollers adopt 304 stainless steel, the shell adopts transparent PC, PPS, AL material, moderate intensity, it is convenient for observing the internal work situation of pump head. The top press block adopts PPS material which is resistant to high temperature and corrosion.



The parameters :

- Flow range: ≤6000 mL/min
- Speed range: ≤600 rpm
- Shell material: PC/PPS/AL alloy
- Press block material: PPS/AL alloy
- Roller material: 304 stainless steel
- Roller number: 3
- Tubing-fixing adjustment: manual
- Gap adjustment: fixed
- Applicable tubes: 15 #, 24 #, 35#, 36#



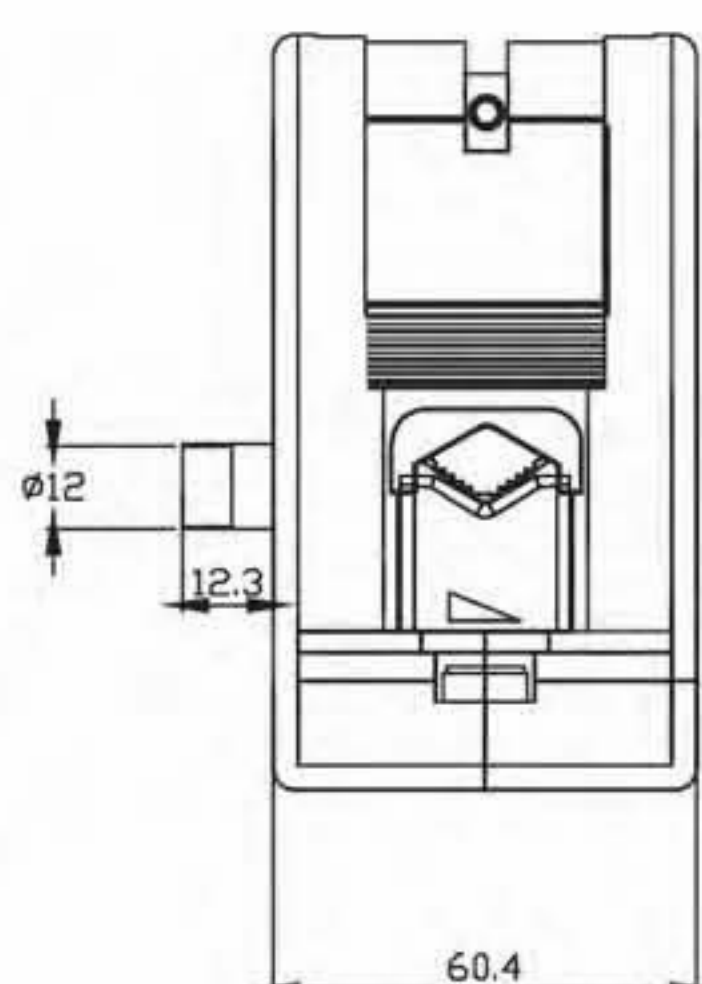
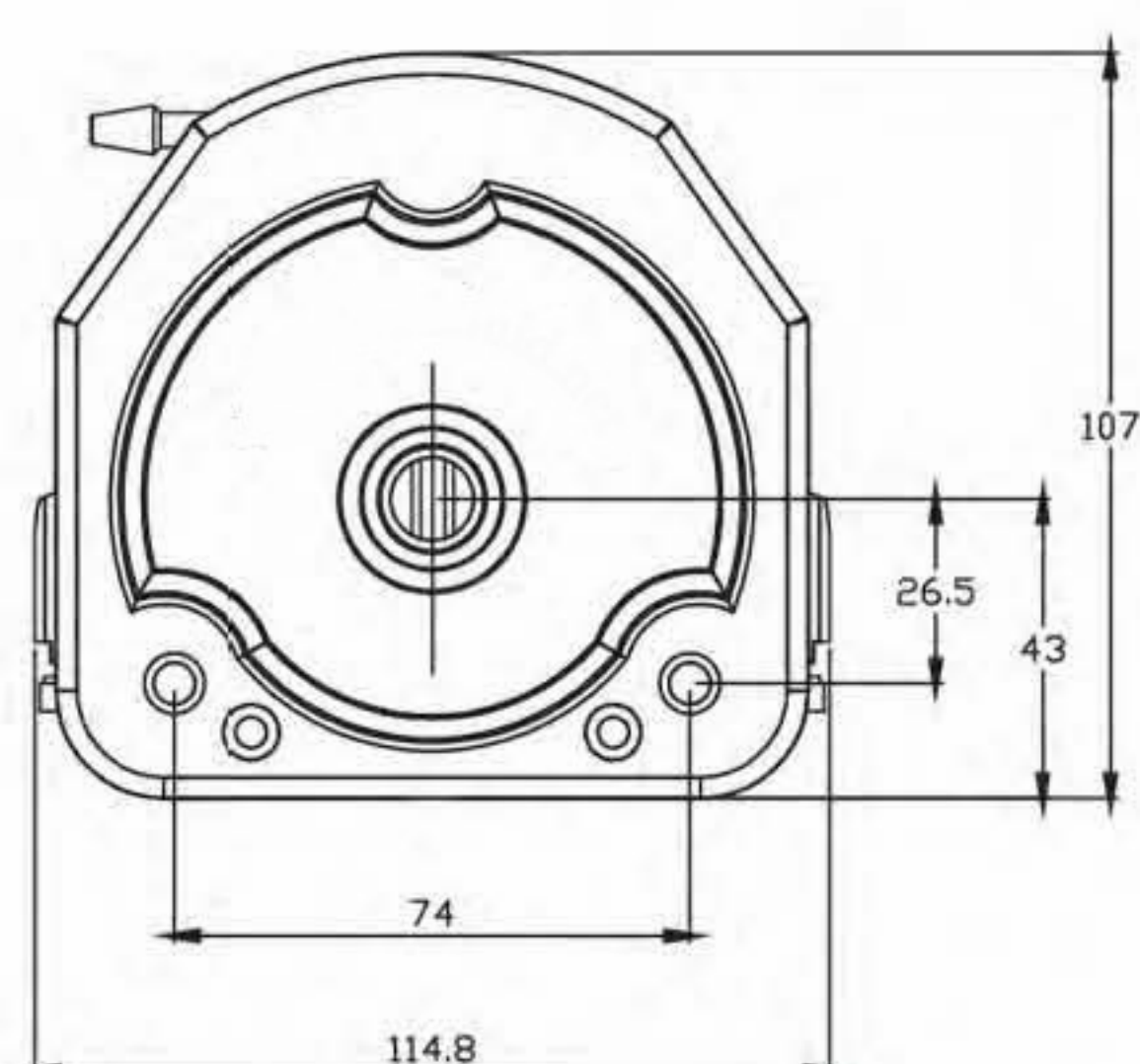
PC



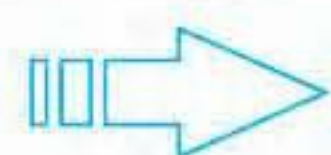
PPS



AL alloy



Appearance size



Flow reference table please consult Lead Fluid salesman.

BZ25 series pump head

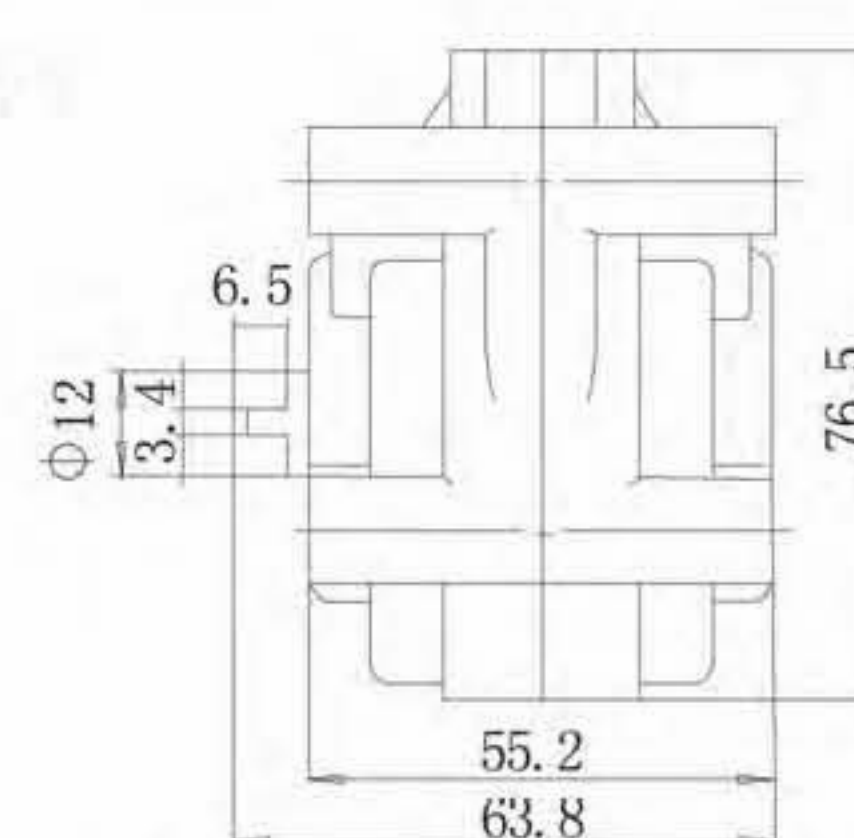
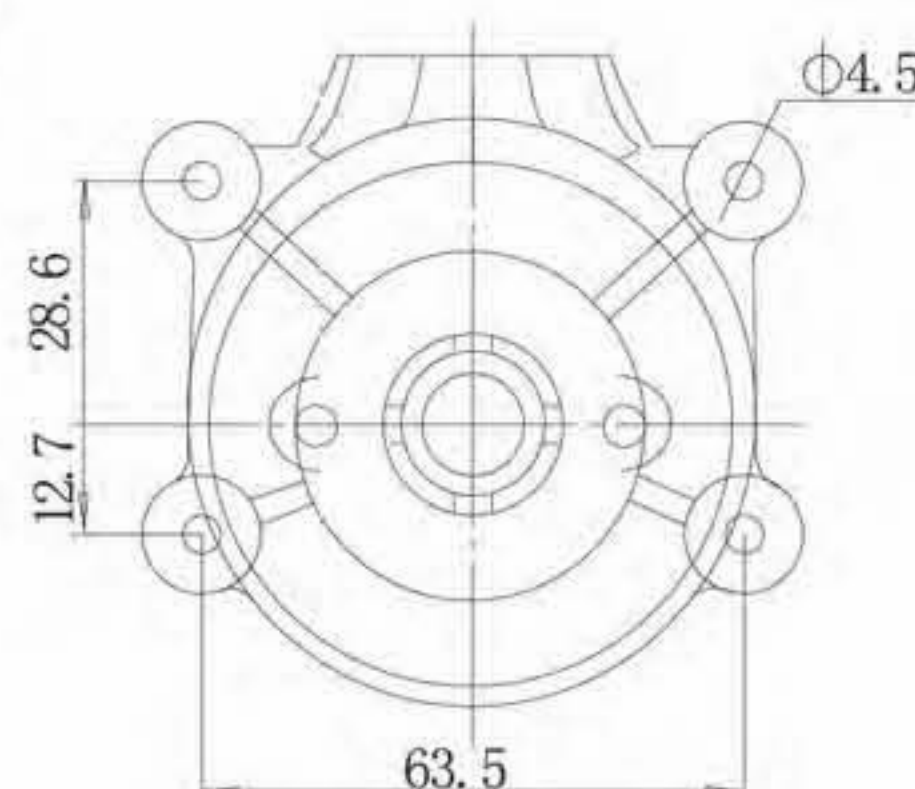
Flow rate of the pump head is up to 1200mL/min, transparent PC plastic shell. It is convenient for observing the work situation of pump head. The roller adopts 304 stainless steel, can work long time with high speed.

Specifications:

- Flow range: ≤1200mL/min
- Speed range: ≤ 600rpm
- Shell material: PC
- Roller material: stainless steel 304
- Roller number: 3
- Gap adjustment: fixed



Appearance size



patented products



DT10-88

Special note

Pulse smaller, gap is adjustable

DT Series multi-channel pump head
DT15 pump head is designed for small and medium flow rate, multichannel fluid conveying. plug type card is convenient and quick to replace the hose. Pump head is equipped with high quality stainless steel roller and the card has the function of adjustment the gap of pressured tube. And two card can install in positive, connect exit/entrance of each channel with Y type connector, then it reduces the pulse. Pump head adopts PPS material, it is better for chemical resistant. Instead of 2/4 channels of YZ15 pump head, volume is smaller.



DT15-14



DT15-24



DT10-18



DT10-28

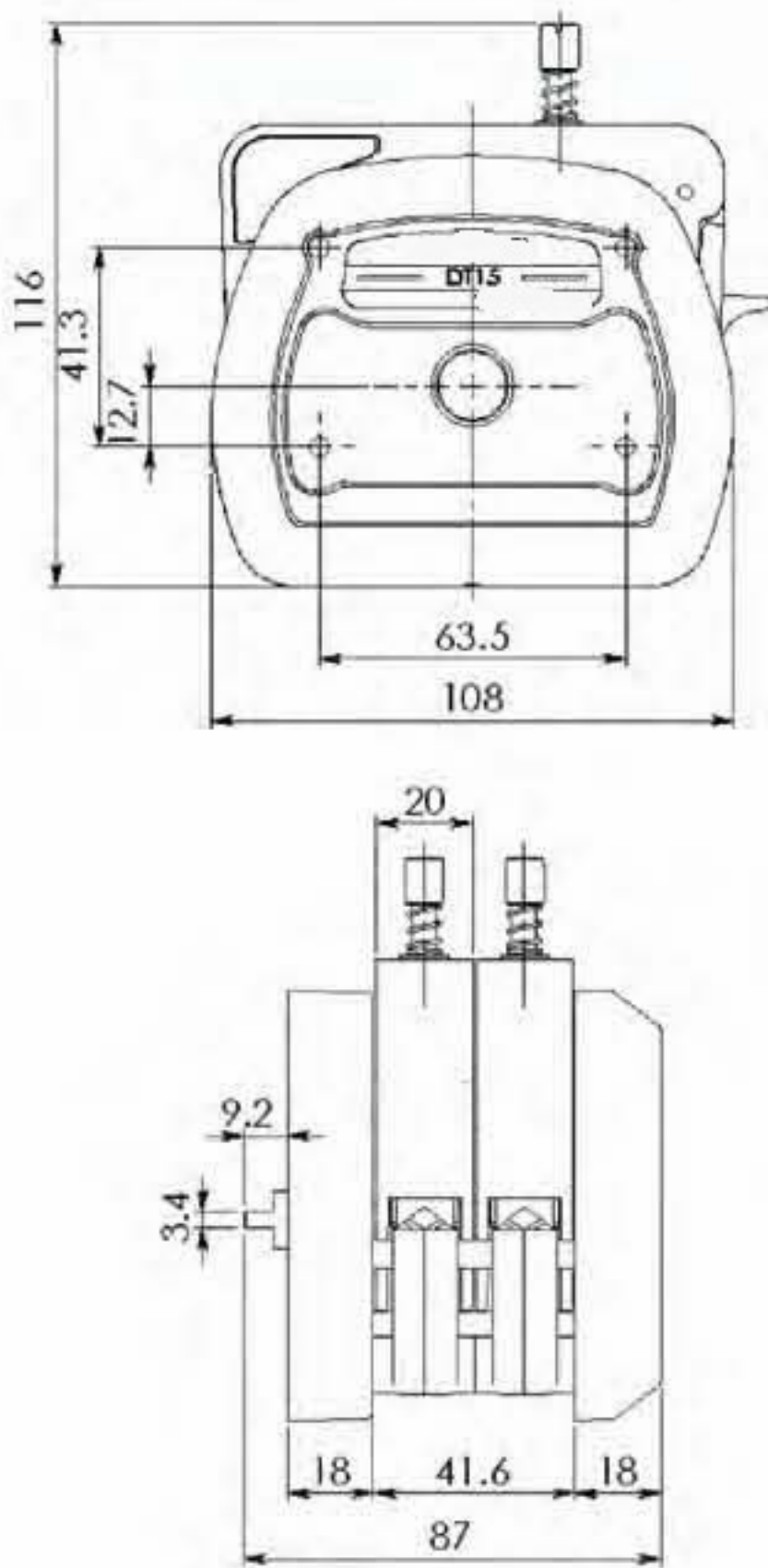


DT10-48



DT15-44

Appearance size



Model	Channel number	Number Of rollers	Roller materials	Housing materials	Speed range (rpm)	Tubing	Maximum flow (ml/min)	Weight (kg)	
DT15-14	1	4	304 Stainless steel	PPS	600	19#, 16# 25#, 17#	1600	0.62	
DT15-24	2							1	
DT15-44	4							1.44	
DT10-18	1	8				100	ID<3.17mm Wall0.8-1mm 13#□14#	70	0.72
DT10-28	2								0.78
DT10-48	4								1.08
DT10-88	8								1.68

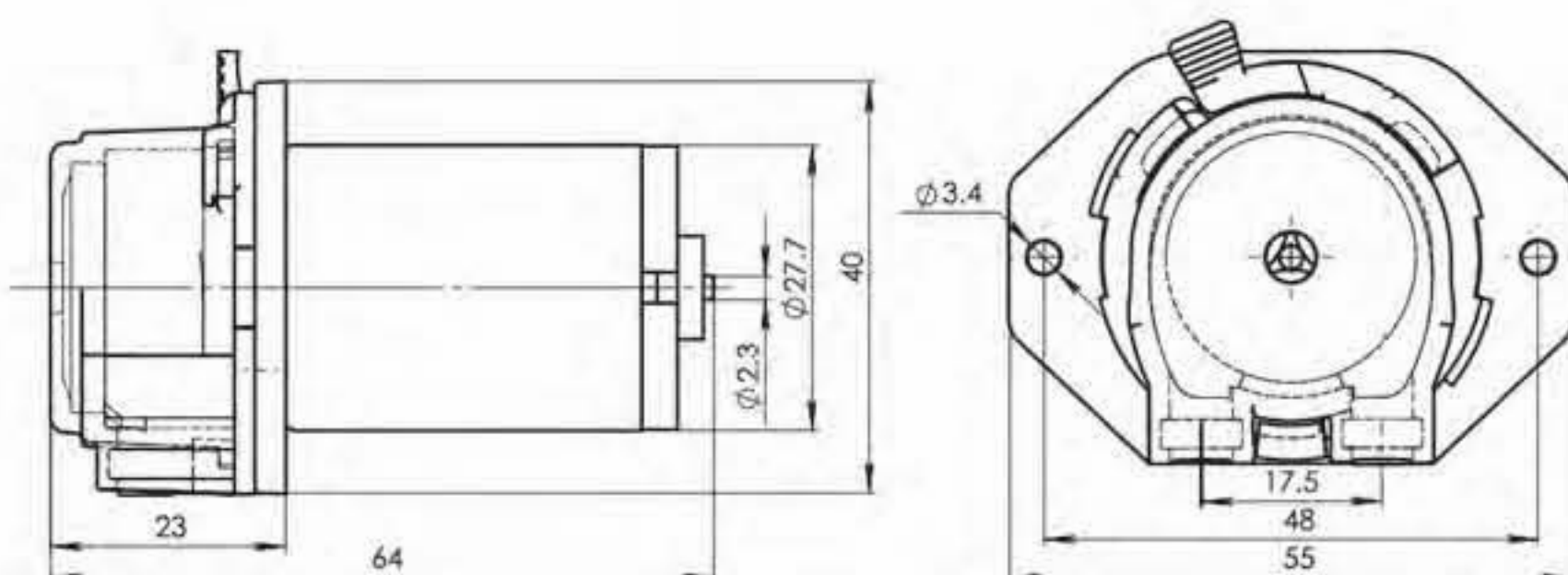
MC10 Flow range 0.3~80ml/min



A

Function and Feature:

- 1.MC10 Micro peristaltic pump, small volume, convenient installation.
- 2.DC motor.
- 3.Adjust the speed via adjust the voltage.
- 4.The positive and negative directions reversible.



KD10 Flow range 0.005-156ml/min KD15 Flow range 0.005-388ml/min

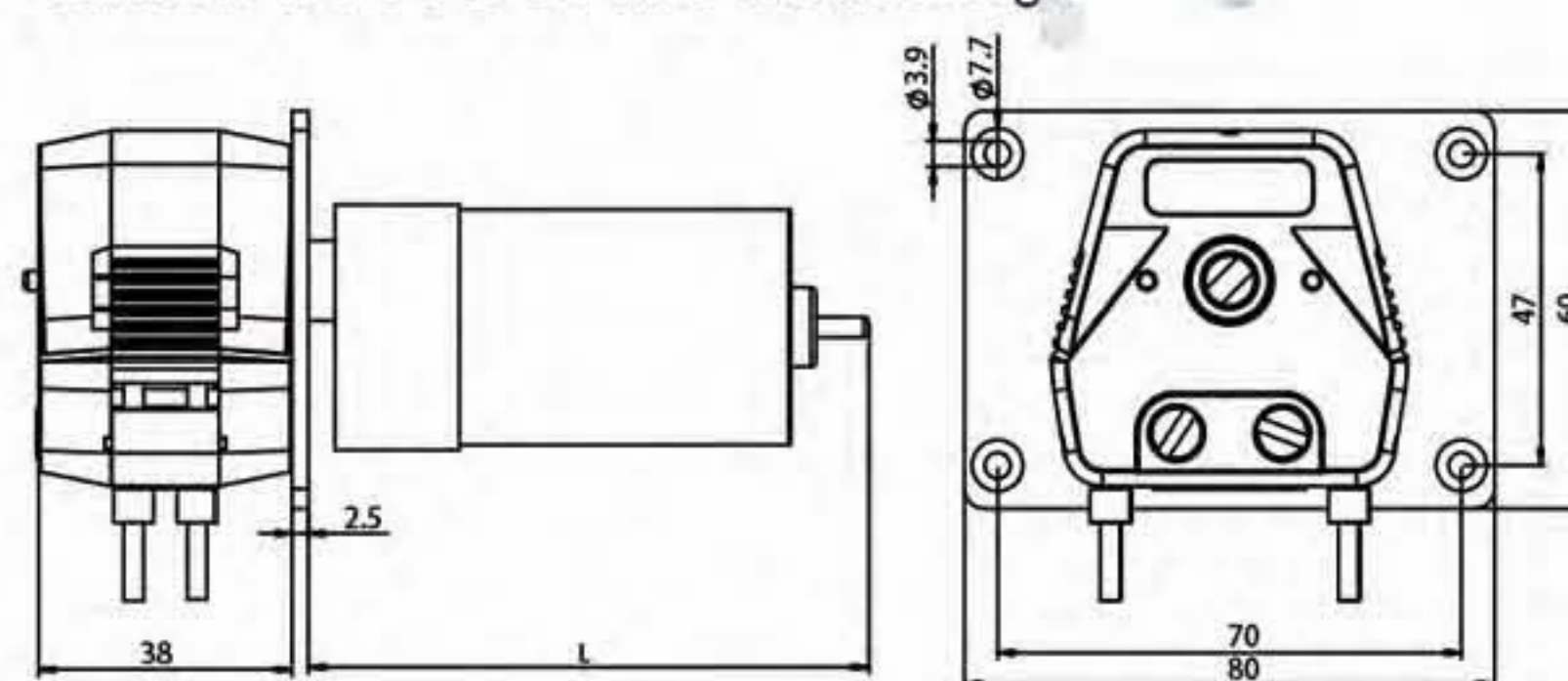
- 1.DC & Stepper motor
- 2.Flow range :0.005-388ml/min
- 3.Roller :4 & 8 rollers
- 4.Tubes :

KD10 :ID0.13-3.17mm,
wall thickness 0.8-1mm
KD15 :13# 14# 19#16# 25#

- 5.Used in the instruments, laboratory equipment, especially suitable for COD on-line monitoring .



B



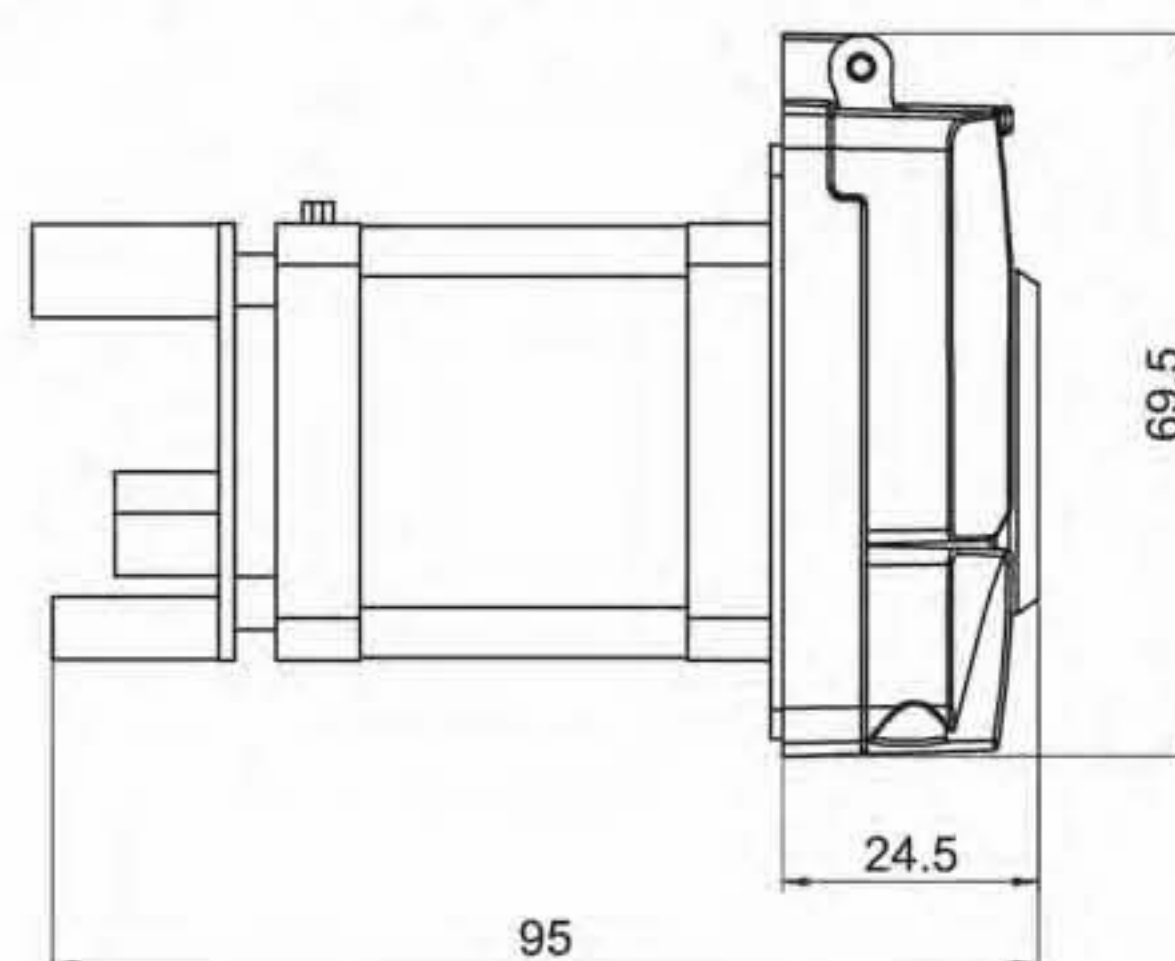
FZ10 Flow range 0.57~32ml/min

Function and Feature:

Be suitable for micro-flow transmission. Pump head and motor are fixed together, small size, convenient to install.



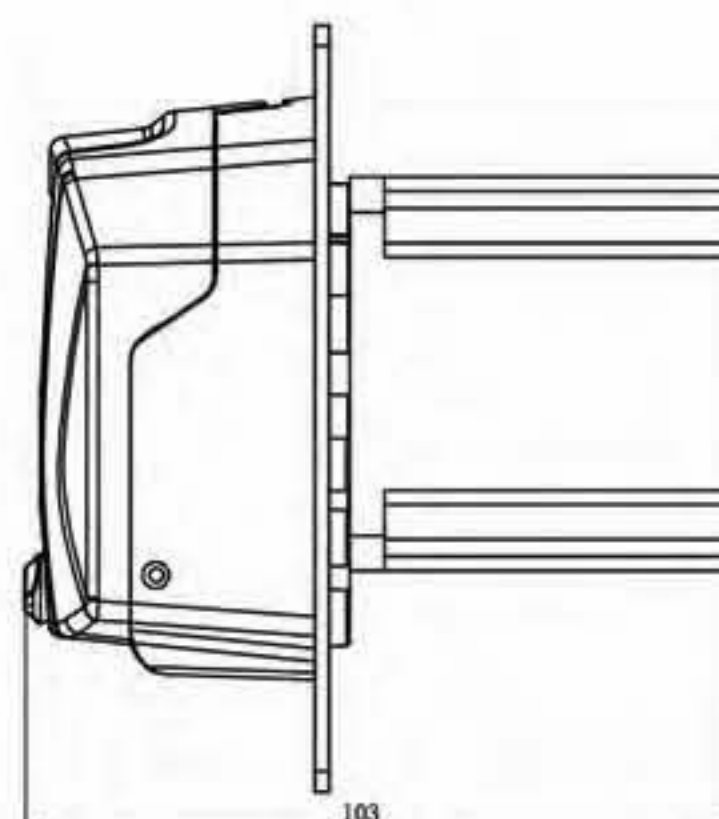
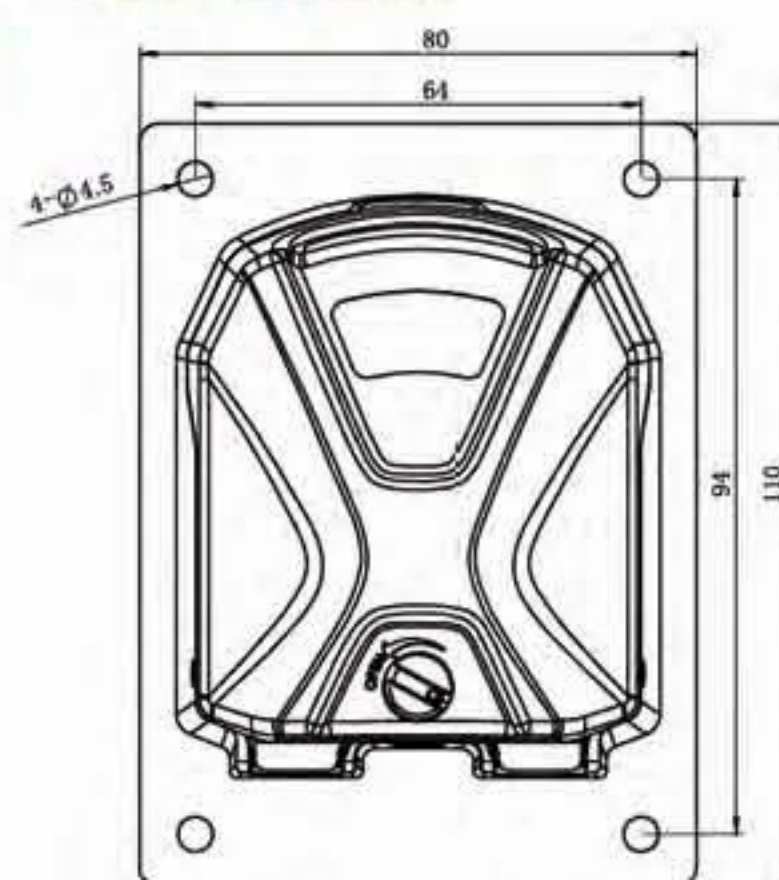
C



KT15 Flow range 0.06~172ml/min



D



Function and Feature:

- Protection Shell: PC
- Working bottom shell: PPS
- Roller material: PVDF
- Roller number:
2working rollers,2
training wheels
- Gap adjustment:
automatic adjustment
- Channel: 1

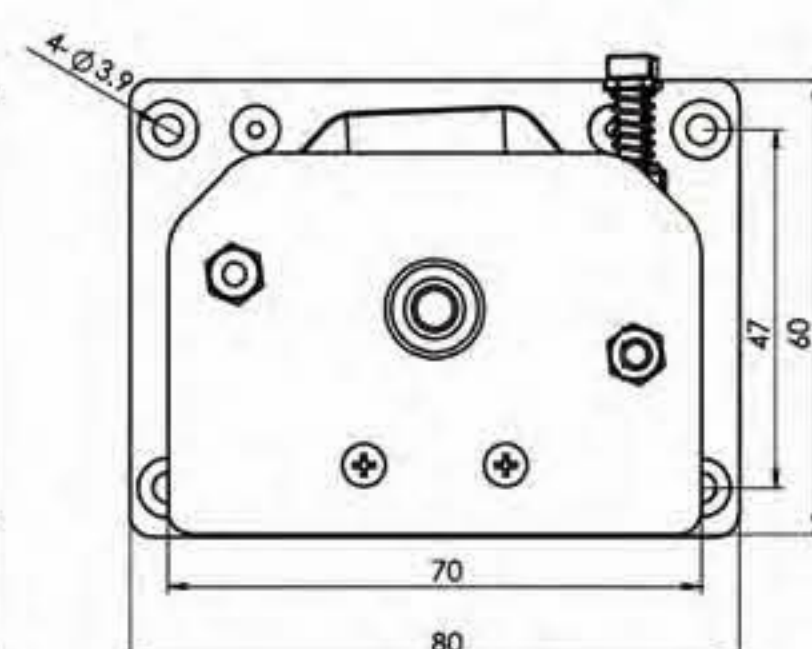
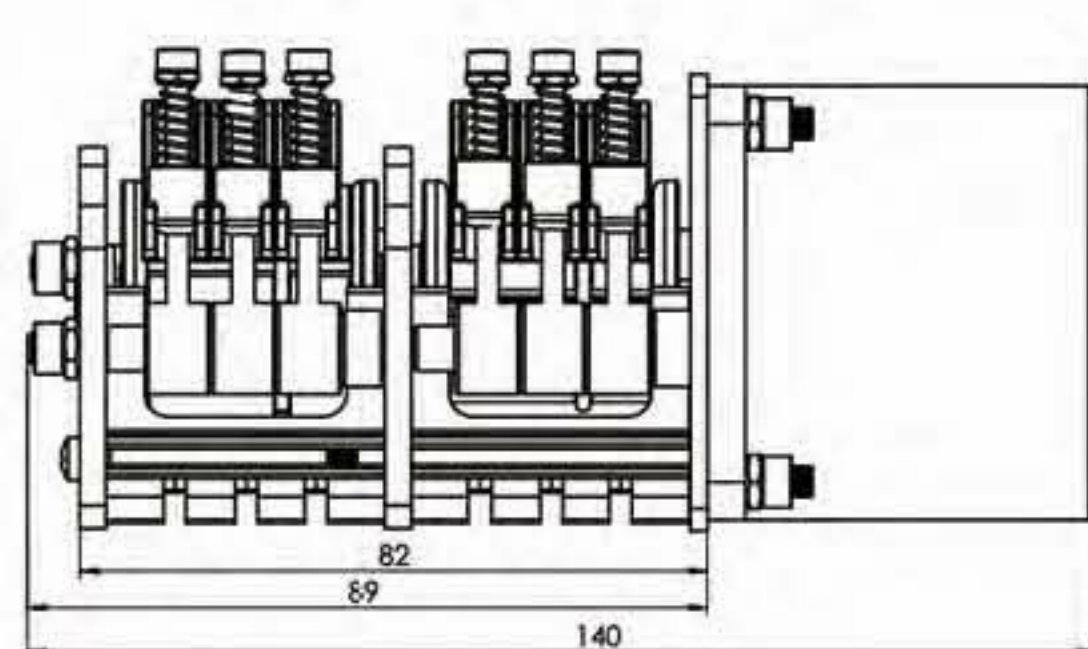
DW10 Flow range 0.005~45ml/min(1, 2, 3Channel)

DW15 Flow range 0.004~120ml



E

DW10/15 Series Pump head →



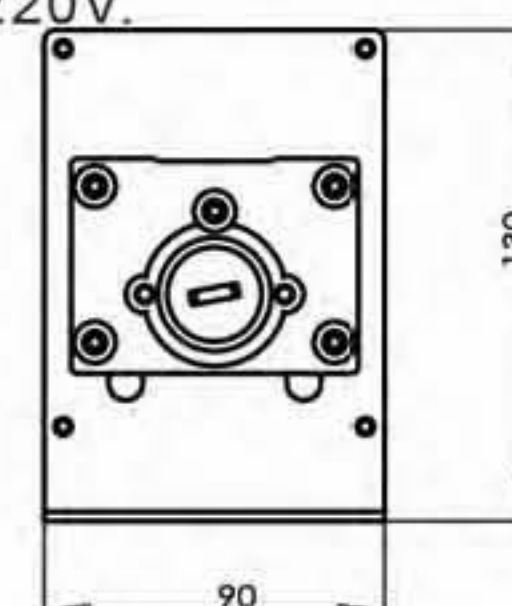
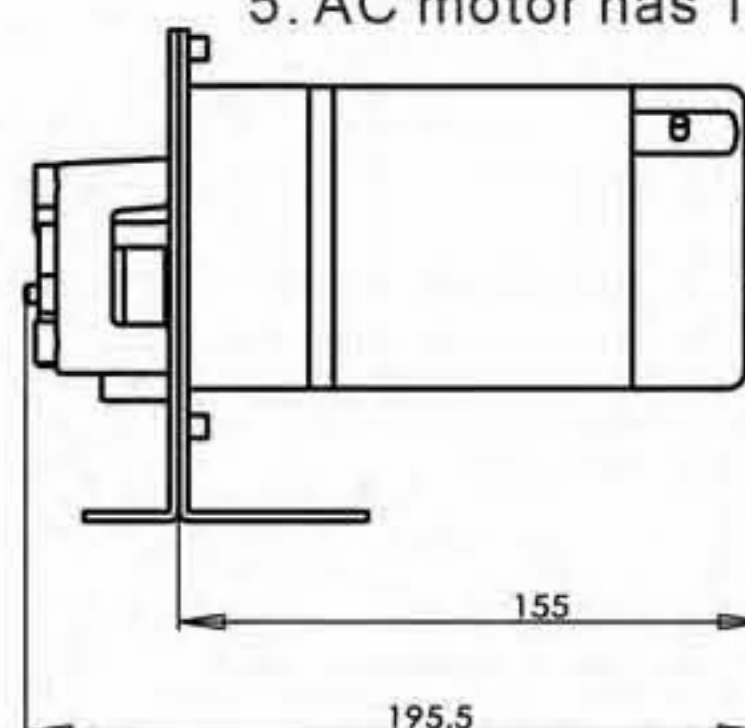
Flow range 0.006~3000ml/min



F

Specifications :

1. Flow range: 0.006~2300 ml/min
2. Use AC/DC speed reduce motor, simple composition.
3. Could fixed or adjustable speed, speed rotation lower : 500rpm
4. DC motor has 12V or 24V optional.
5. AC motor has 110V or 220V.

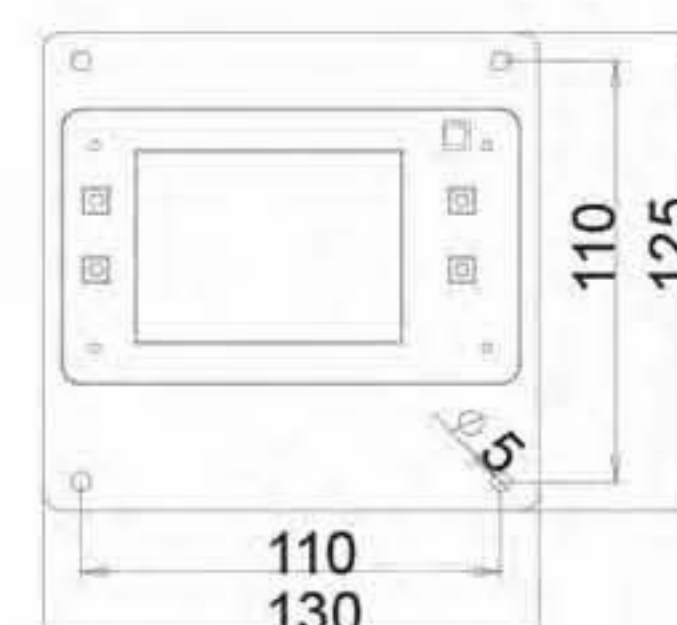
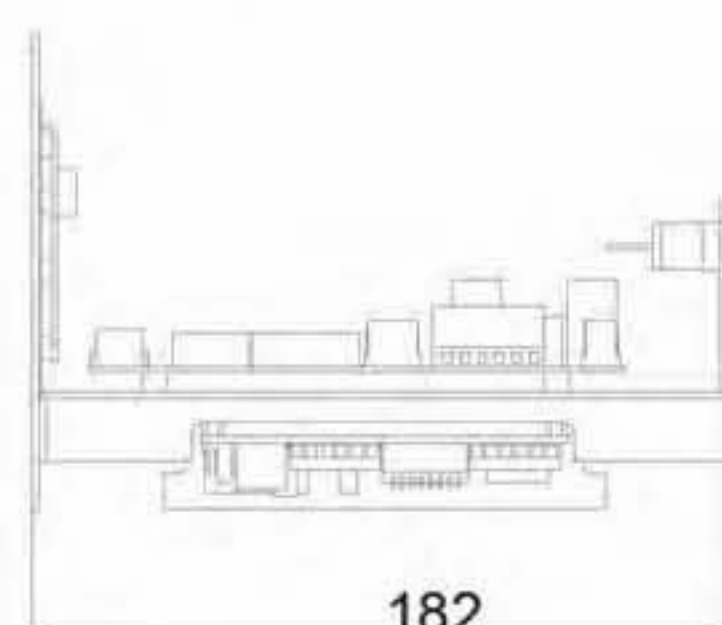
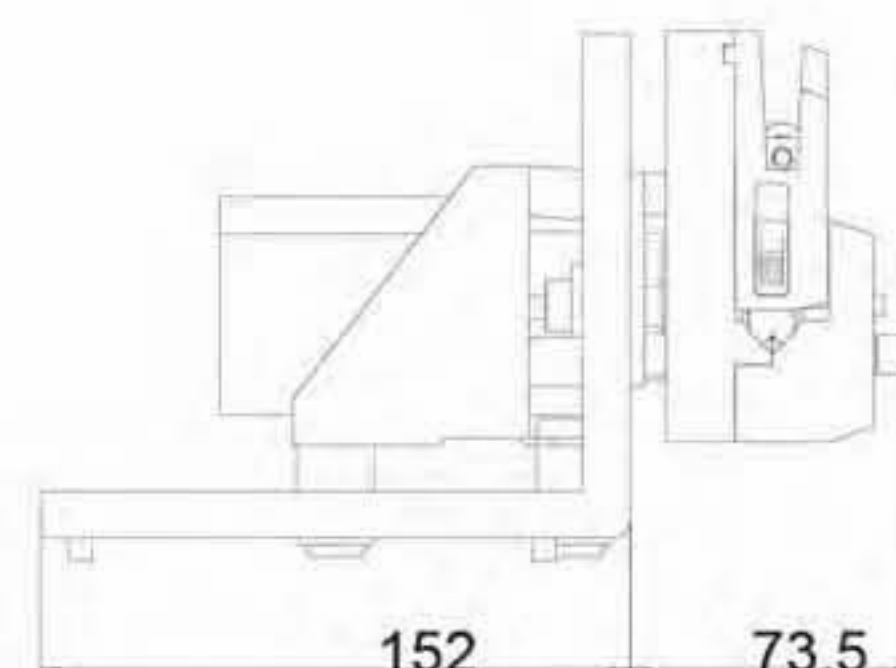


Applicable Pump head flow parameters

Pump head	DG	YZ15/25	BZ15/25	YT25	DT15
10rpm(min)	0.56ml/min	0.6ml/min	0.6ml/min	16 ml/min	4.7 ml/min
100rpm(max)	26 ml/min				
500rpm(max)		1400 ml/min	1000 ml/min	2500 ml/min	1300 ml/min

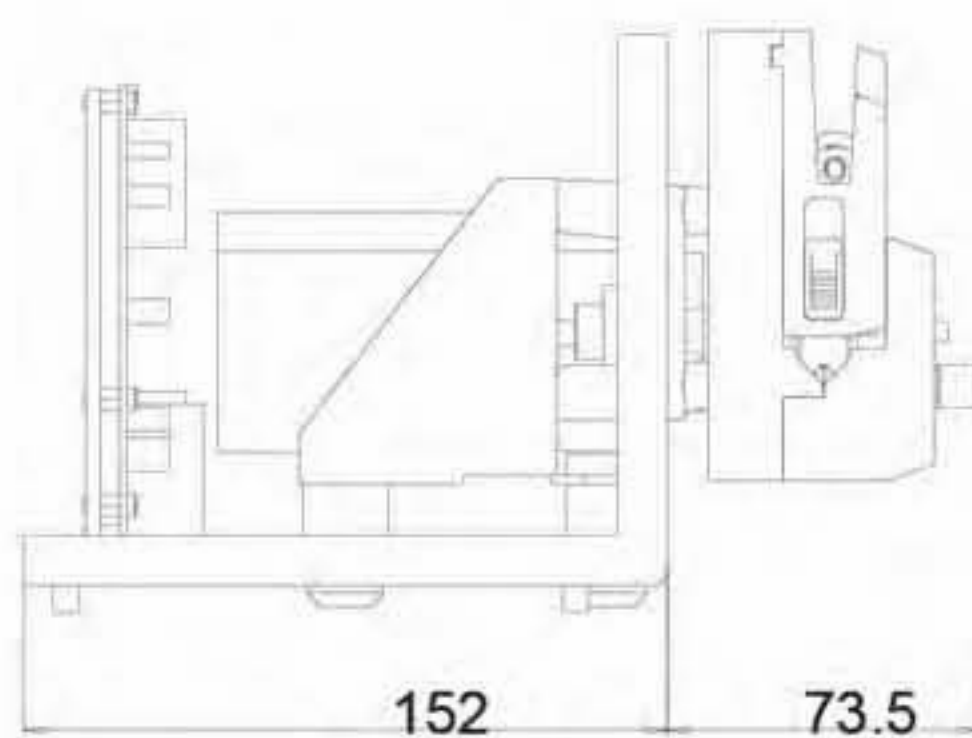
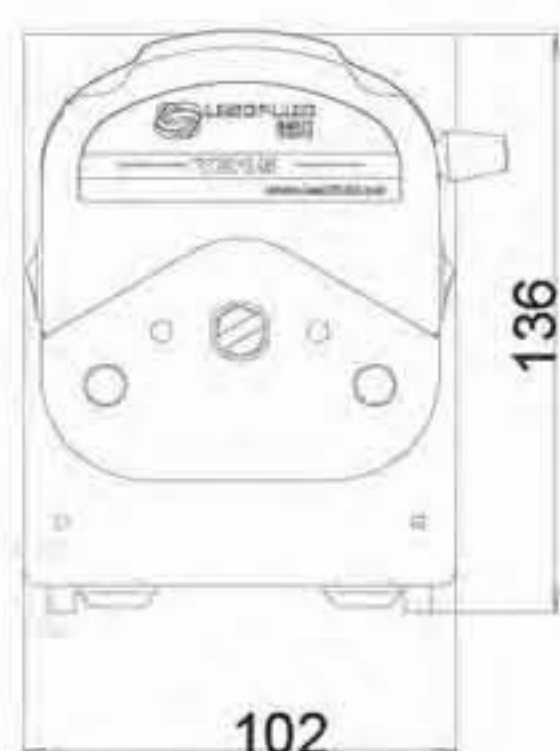
Flow range: 0.6~3000ml/min fission installation

- ◆ Flow range: 0.6~3000ml/min
- ◆ The pump head unit adopts facade & bottom dual purpose installation, convenient & flexible.
- ◆ Control and drive fission installation, easy to arrange position inside the assort case.
- ◆ Controller has all the function of peristaltic pumps, it also control the pump through external control port.
- ◆ 600 Type of pump can install two pump heads.
- ◆ Could provide signal pump head unit.



Flow range: 0.6~3000ml/min one unit facade & bottom dual purpose installation

- ◆ Flow range: 0.006~2300ml/min
- ◆ Facade & bottom dual purpose installation, convenient & flexible
- ◆ Control and drive in one unit, small size.
- ◆ Fixed speed or external communication control, speed range: 0.1-100rpm
- ◆ Could provide signal pump head unit.



G



Applicable Pump head flow parameters

Pump head	DG	YZ15/25	BZ15/25	YT25	DT15
Speed (rpm)					
0.1rpm(min)	0.016ml/min	0.006ml/min	0.08ml/min	0.16 ml/min	0.047 ml/min
100rpm(max)	26 ml/min				
600rpm(max)		2300 ml/min	1200 ml/min	3000 ml/min	1600 ml/min

Flow range: 0.25~6000ml/min

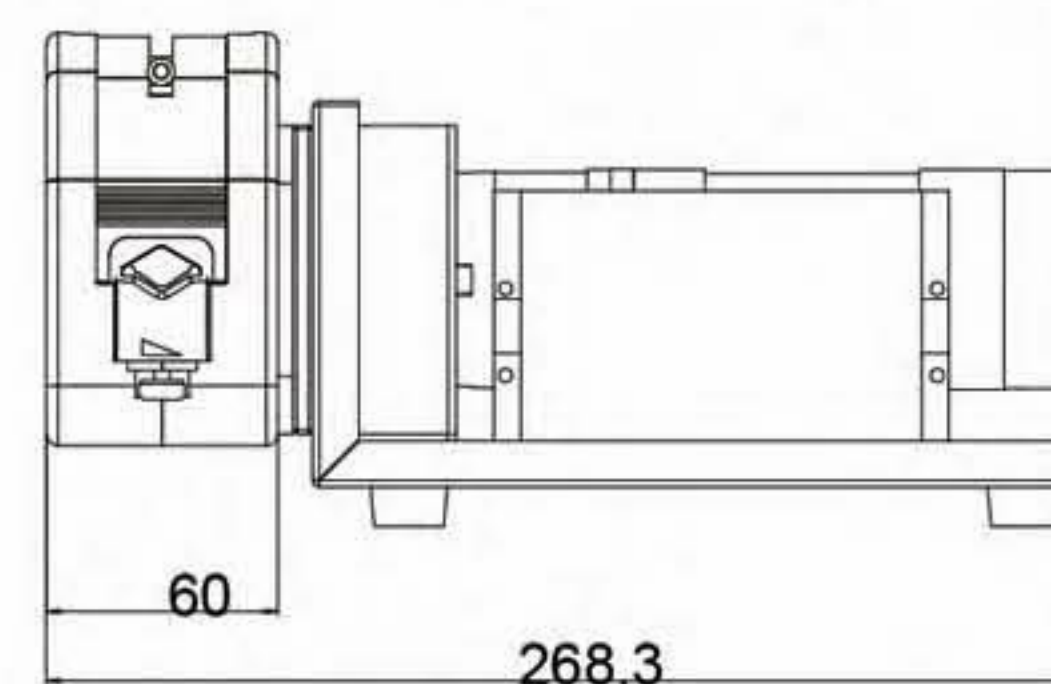
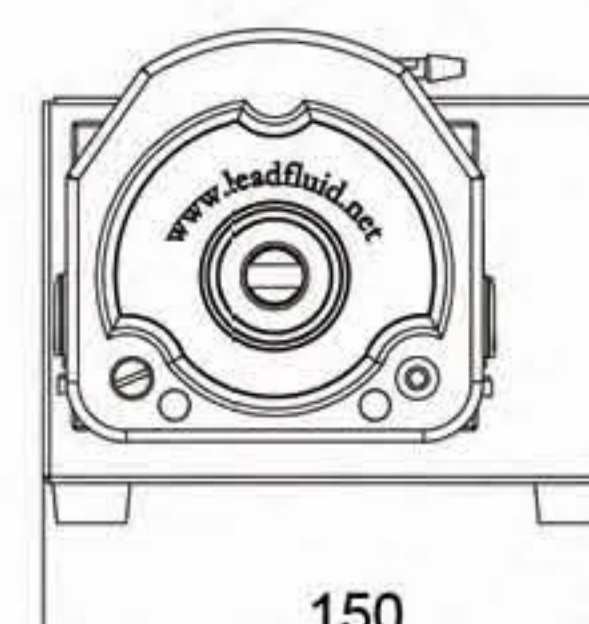
- ◆ Flow range: 0.25~6000ml/min.
- ◆ Base plate installation, brushless DC motor.
- ◆ Operates smoothly, no vibration.
- ◆ Various external signal control.
- ◆ Speed range :50-600rpm.
- ◆ Suitable for transferring viscous liquid.



H

Applicable head

Model	KZ25	KZ25(PPS)	KZ25-L
Head picture			
Material	PC,PPS	PPS	AL alloy

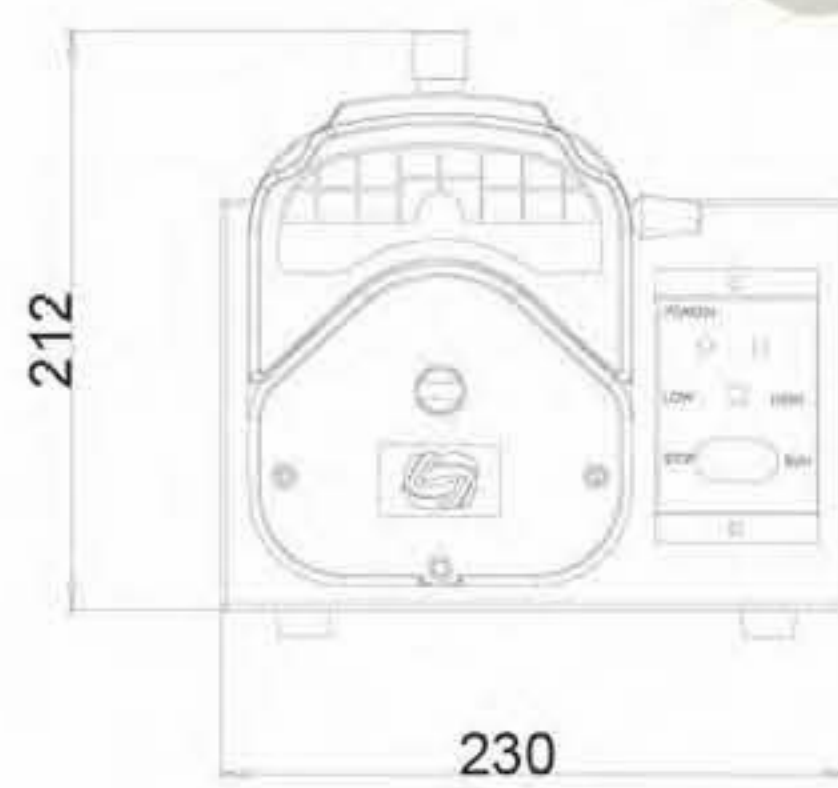
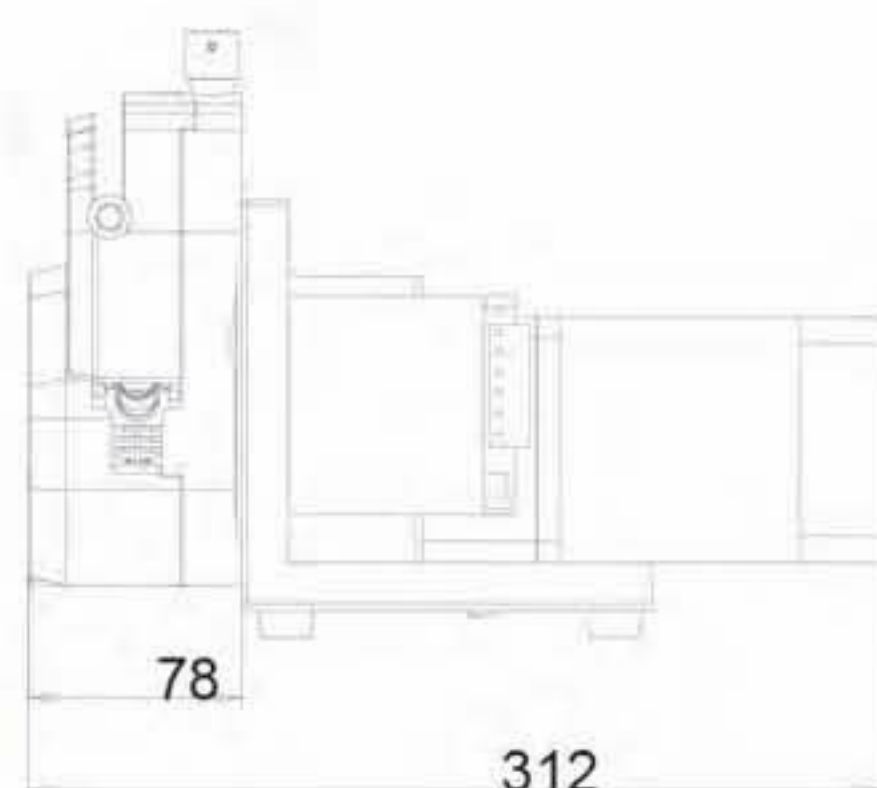


I

Flow range: 900~9000ml/min

1. AC motor drive
2. The speed adjustable or fixed speed
3. fitted YZ35 head

YZ35×2





Lead Fluid Silicone Tubing

Overview: Lead fluid peristaltic pump standard tube applies imported silicone rubber raw materials and platinum sulfide production process. The tube has the characteristics of non-toxic, biological inert and UV resistance. ozone resistance, heat resistance, high transparency, strong resilience, resistance to compression, etc. It is the optimal material of peristaltic pump tube. It can be widely used in GMP pharmaceutical, biotechnology, molecular biology, fine chemical, environmental protection, food processing and other areas of scientific research and production. Characteristics: excellent durability and heat aging resistance made of imported high-quality rubber excellent physical and mechanical properties weak in acid and solvent resistance. Advantages: high tearing proof high transparency capability 4-8bar water pressure.

Tubing Specifications

Tubing NO	0.13×0.86	0.5×0.8	0.86×0.86	1.52×0.86	2.06×0.86	2.4×0.86	2.79×0.86	3.17×0.86	1×1	2×1	3×1
Tubing Section (1:1)											
Wall thickness (mm)	0.86								1.0		
ID (mm)	0.13	0.5	0.86	1.52		2.4	2.79	3.17	1.0	2.0	3.0
Tubing	Continuous										
	Interval										

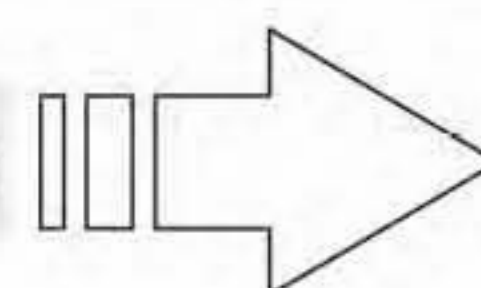
pressure

(Mpa) Tubing NO	13#	14#	19#	16#	25#	17#	18#	15#	24#	35#	36#
Tubing Section (1:1)											
Wall thickness (mm)	1.7		1.6			2.4					
ID (mm)	0.8	1.6	2.4	3.1	4.8	6.4	7.9	4.8	6.4	7.9	9.6
Tubing	Continuous										
	Interval										

pressure

Tubing NO	73#	82#	86#	90#	193#	191#	88#	92#
Tubing Section (1:1)								
Wall thickness (mm)	3.3			6.3		4.8		
Id (mm)	9.7	13	9.5	19	9.5	19	12.7	25.4
Tubing pressure (Mpa)	Continuous							
	Interval							

Details on the right note



The main factors for selecting tubing

Tubing's characters:

- Good flexibility, quick recovery after pressure(shore hardness:40-80)
- Abrasion resistance.
- Common press-endurance
- No leakage(good air-tightness),low adsorption.
- Good temperature-endurance and aging-resistance.
- No swelling,corrosion resistance.

Chemical compatibility:

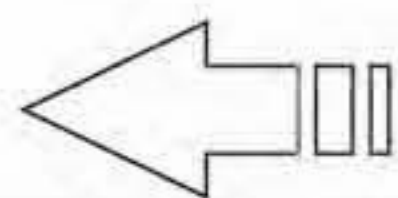
Chemical compatibilities of tubing are some good chemical properties the tubing appears when transferring fluid. The normal tubing only general touch with chemical material, but peristaltic pump's tubing touch with chemical material under working conditions, so the chemical compatibility level is different between peristaltic pump's tubing and general tubing. Peristaltic pump's tubing has the corresponding materials to meet demand, according to transmission various liquid. The user should check every kind of chemical material in the solution, to make sure it can handle with the chosen tubing compatible.

Compression:

The factors of affecting the tubing compression:material, diameter and the wall thickness of the scale. If the system pressure over the limit of the tubing, the tubing will be expanded, result in the tubing excessive wear or tubing burst.

Temperature:

The working temperature range of tubing is the main factor of user considers. Different materials have different temperature performance. Some materials such as silicone rubber is wider temperature range, it is suitable for the high temperature and low temperature. But some tubing materials can work only for a small range. The user in the selection of tubing materials, should first make clear the maximum and minimum temperature, then ensure the selected tubing can work in the temperature range.



1. Left sectional graph of tubing(1:1)
2. The main index of tubing are ID and wall thickness, the expressions are different from various companies, such as: normal code or "ID*OD"
3. The tubes with thick wall are adapted to speed as high as 600rpm, while the tubes with thin wall are only used under 100rpm.



Size:

The size of the tubing directly influence on the flow, the inner diameter of the tubing decided the flow, is directly proportional to the flow. Wall thickness not only influences the resilience of tubing, but also influences the life of the tubing.

Transparency:

If the operator needs observe the status such as: the bubbles, particles, pollution case, should choose the Tygon® or silicone rubber tubing, and if the fluid is not easy to exposure, should choose not transparent tubing.

Gas permeability:

For some fluid is sensitive with the gas, some easy by oxidation, or anaerobic cell cultures. Users should consider the gas permeability factor of tubing. In general, the highest porosity is silicon tubing. So some fluid that unfavorable contact with the gas, should choose the low porosity of tubes.

The authentication:

Tubing is used for related purposes may be through the relevant authentication. Such as the United States pharmacopoeia USP, European pharmacopoeia EP, the United States food and drug administration standard FDA, the United States department of agriculture standard USDA and the national sanitation foundation standard NSF.

Working life :

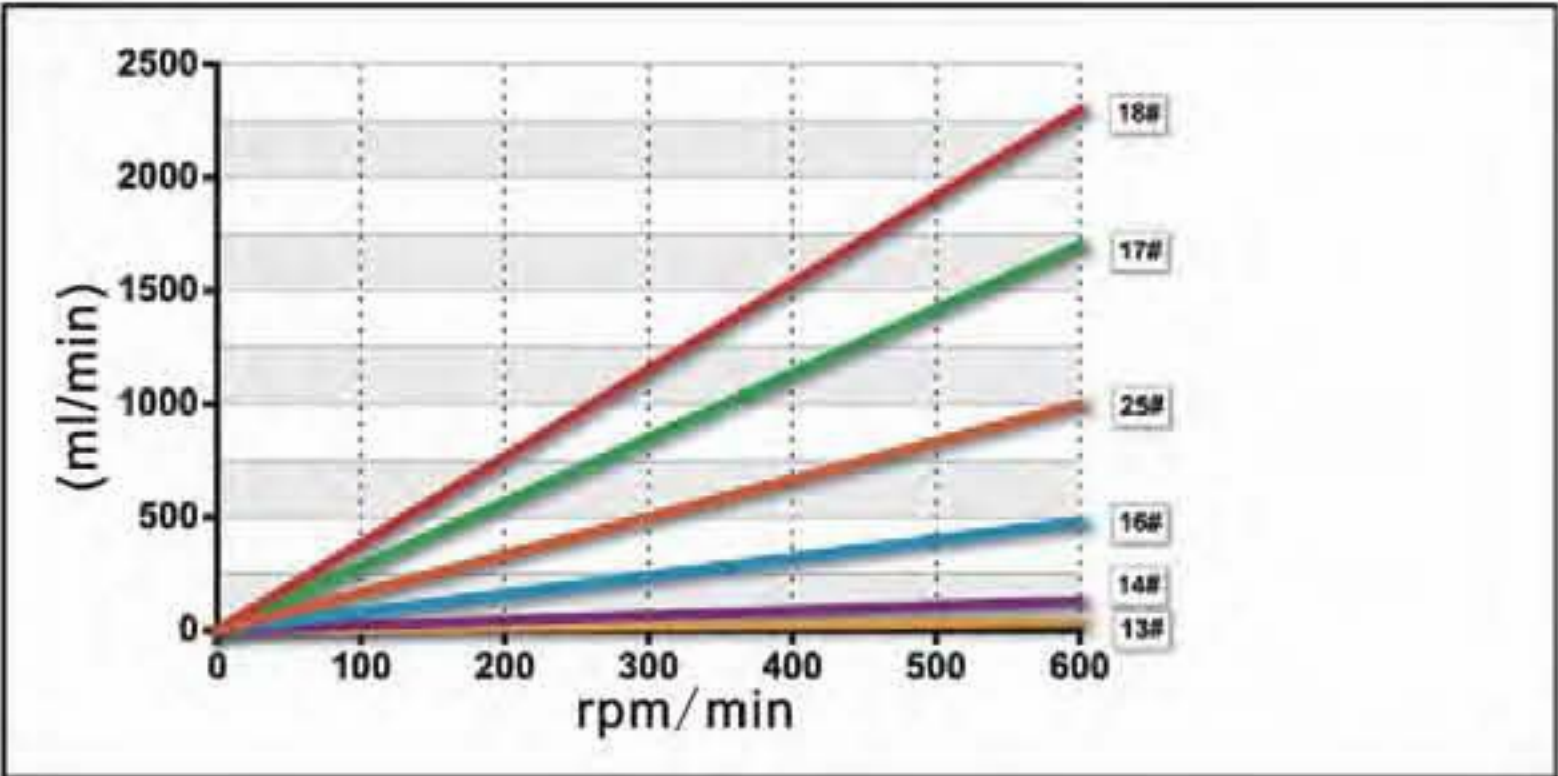
Different tubes have different abilities of roller extruding, friction resistance. Different tubing type pipe, pump head, operation speed, the life are different. Choose the long life, thick wall tubing, big flow pump, run in lower speed can be obtained more long service life.

Flow range:

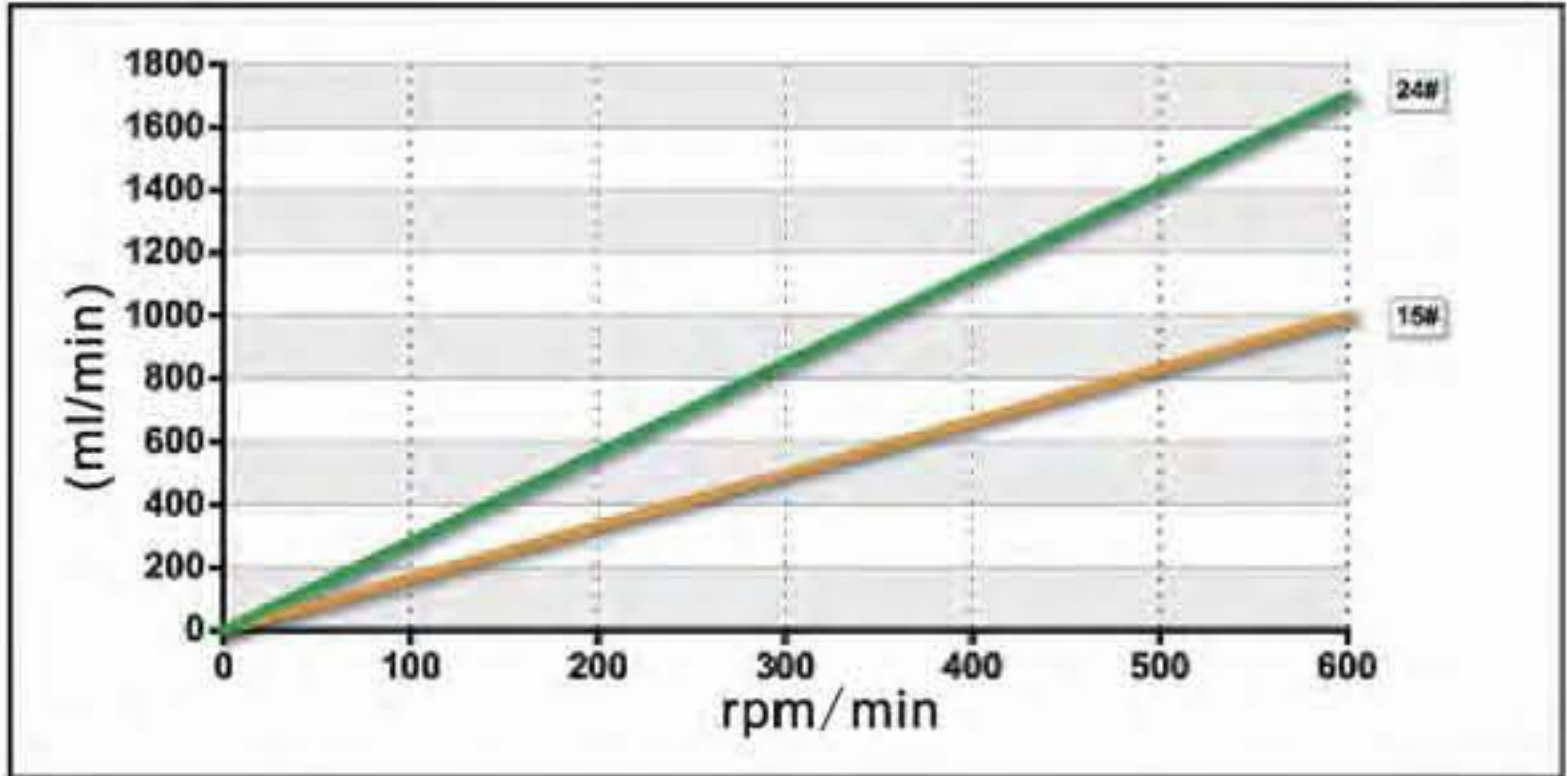
Each tubing is corresponding fixed flow range. We according to our customers needs of flow range choose corresponding tubing.

Reference Flow Curve Of Peristaltic Pump Head Suitable Tube

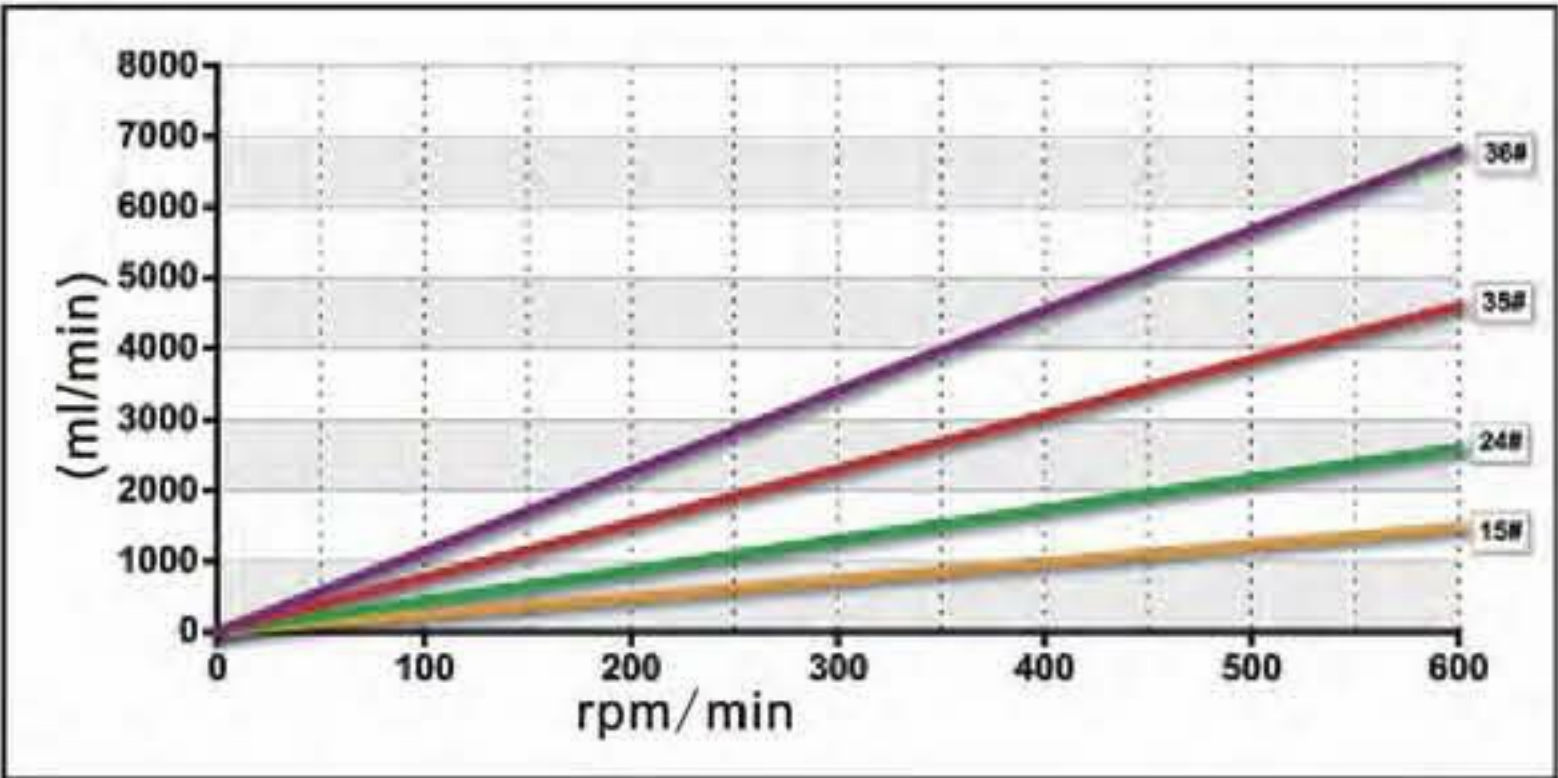
YZ15



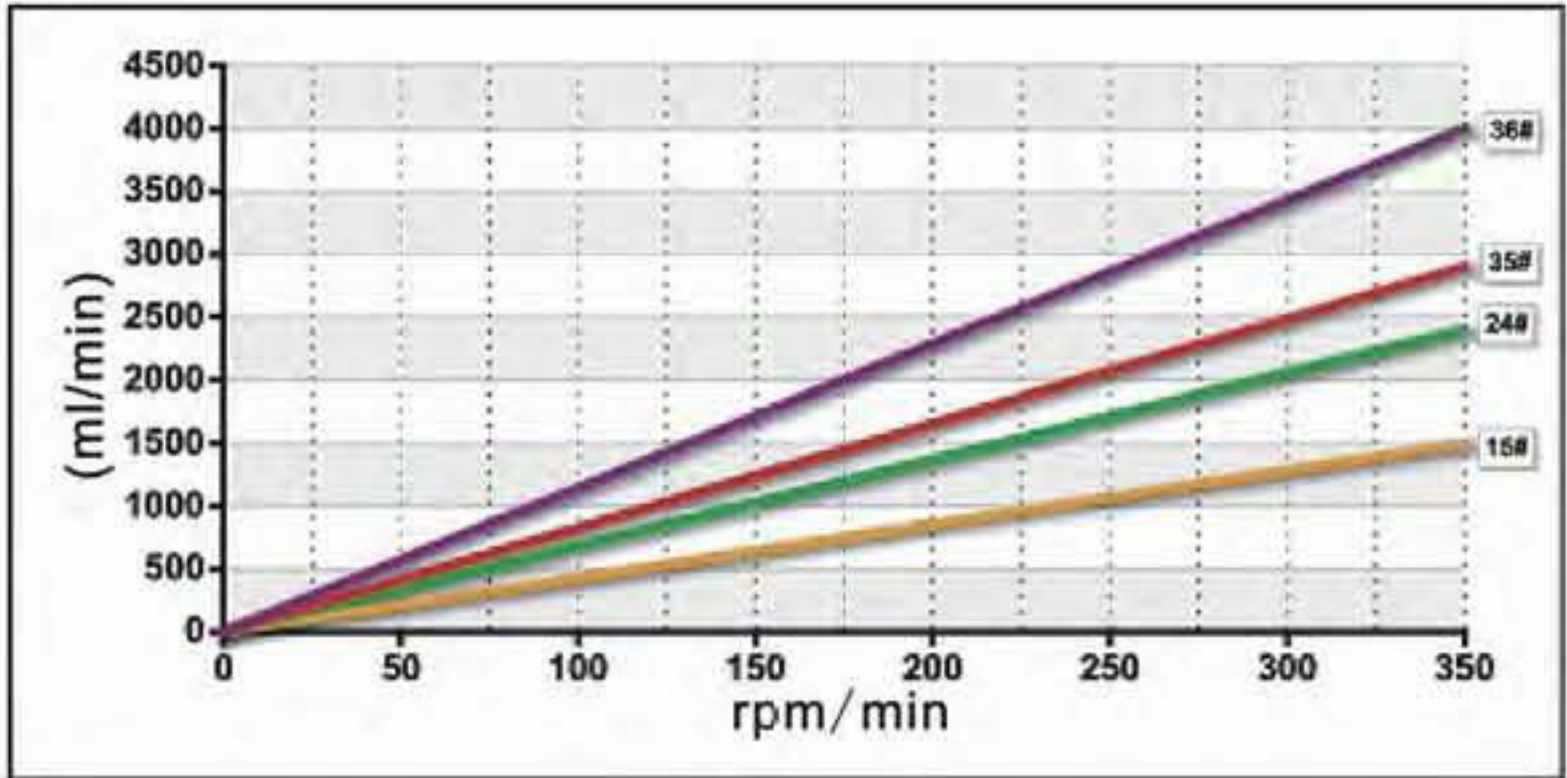
YZ25



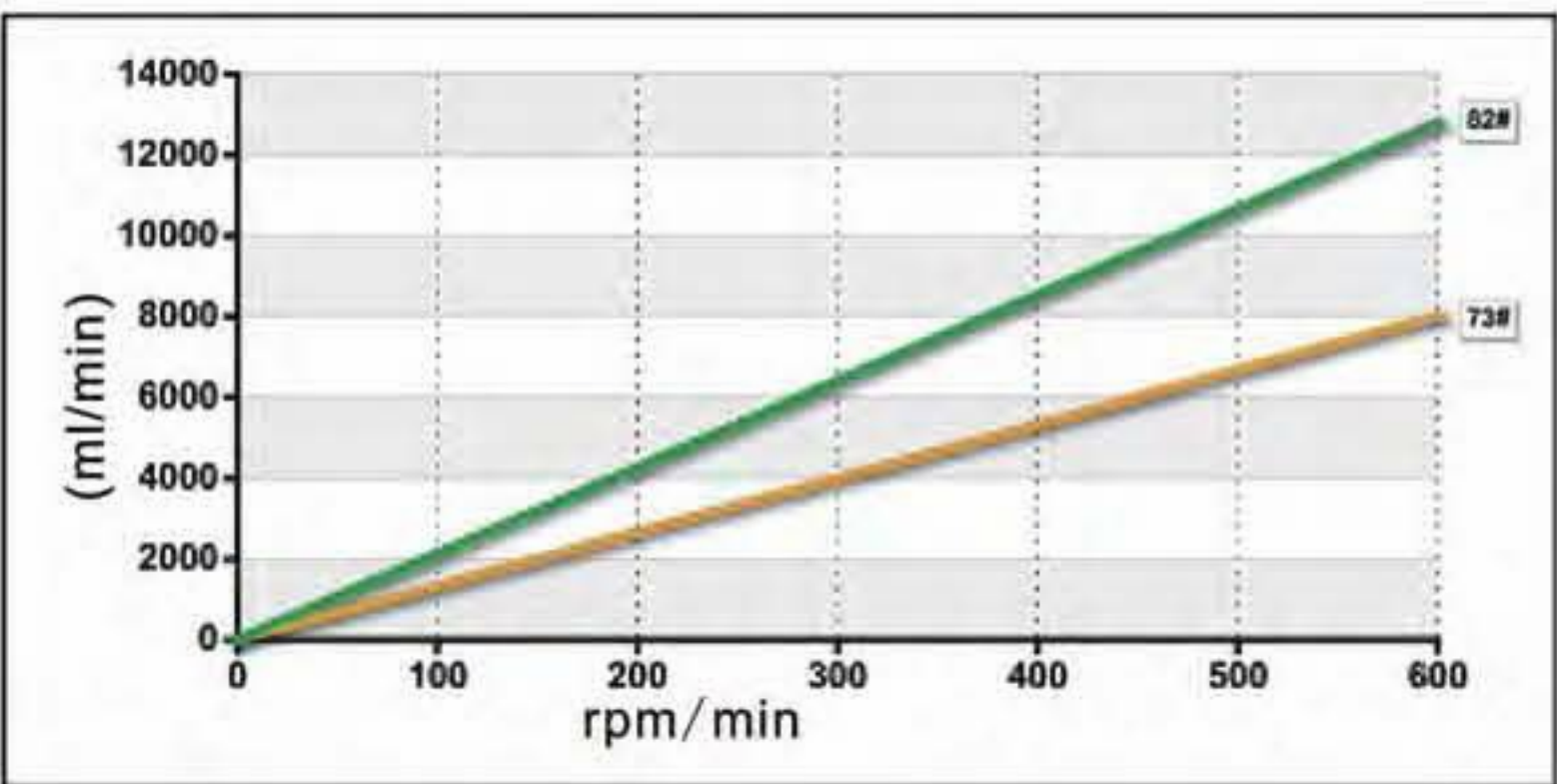
KZ25



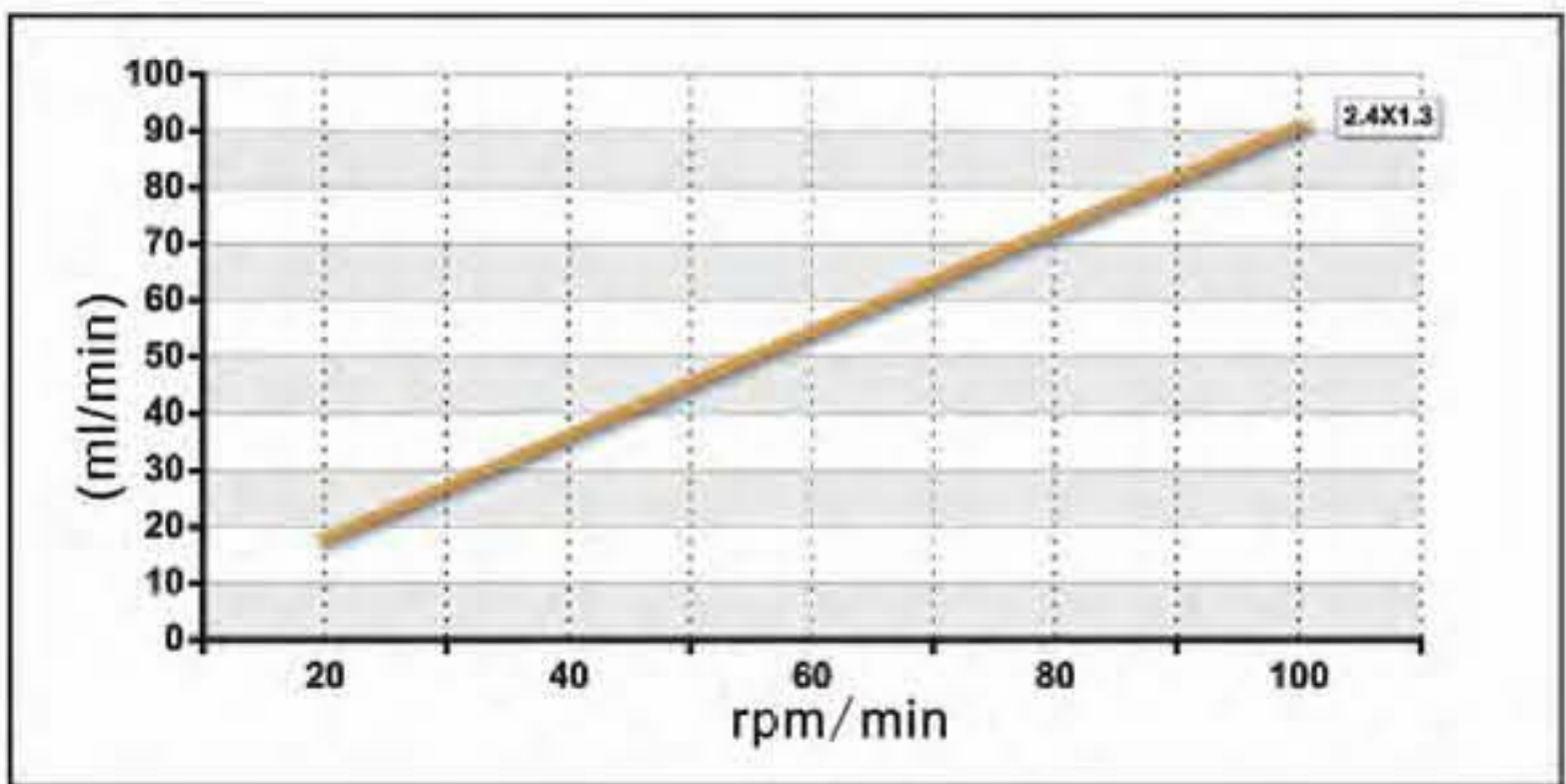
DMD25



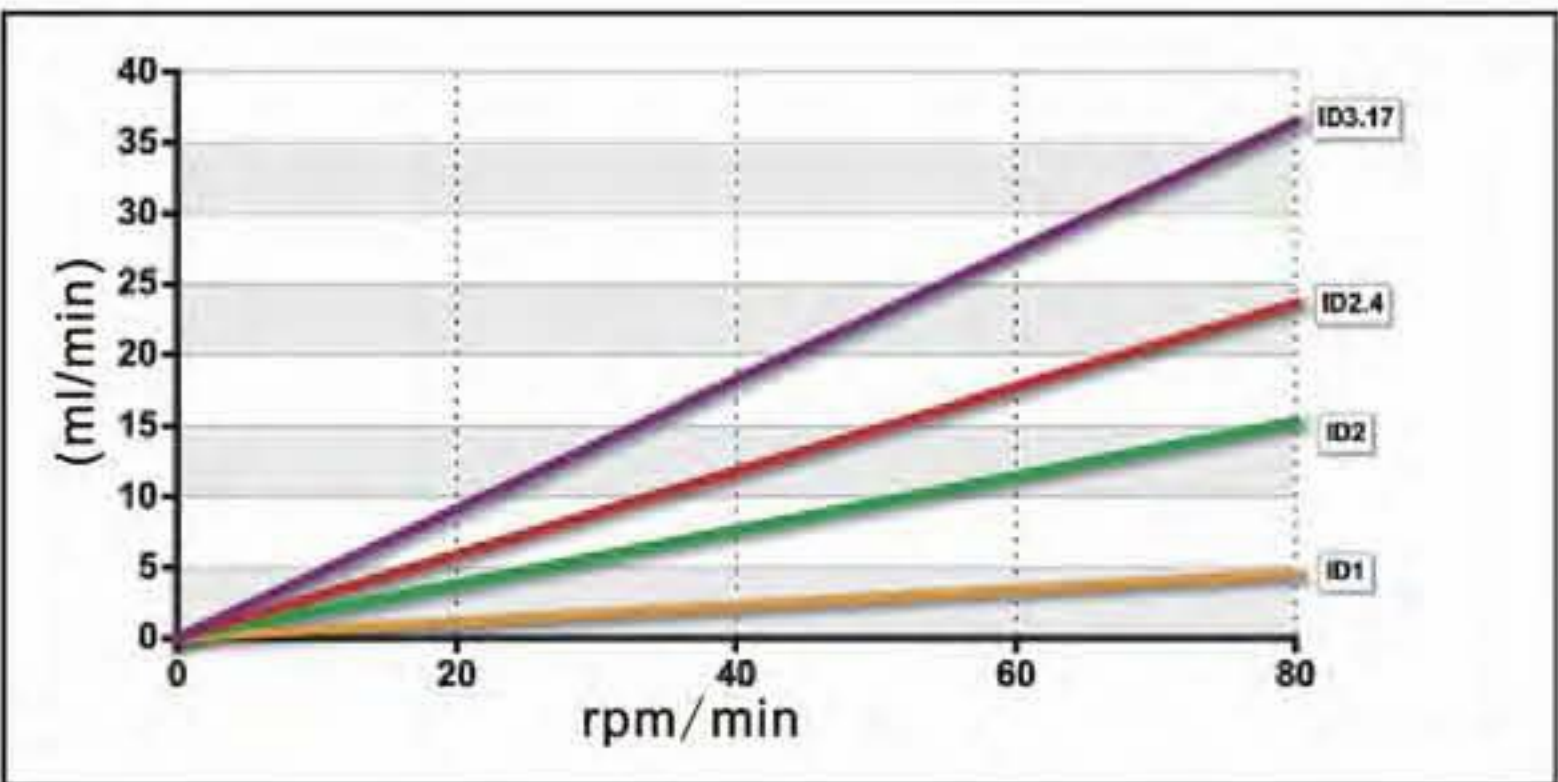
YZ35



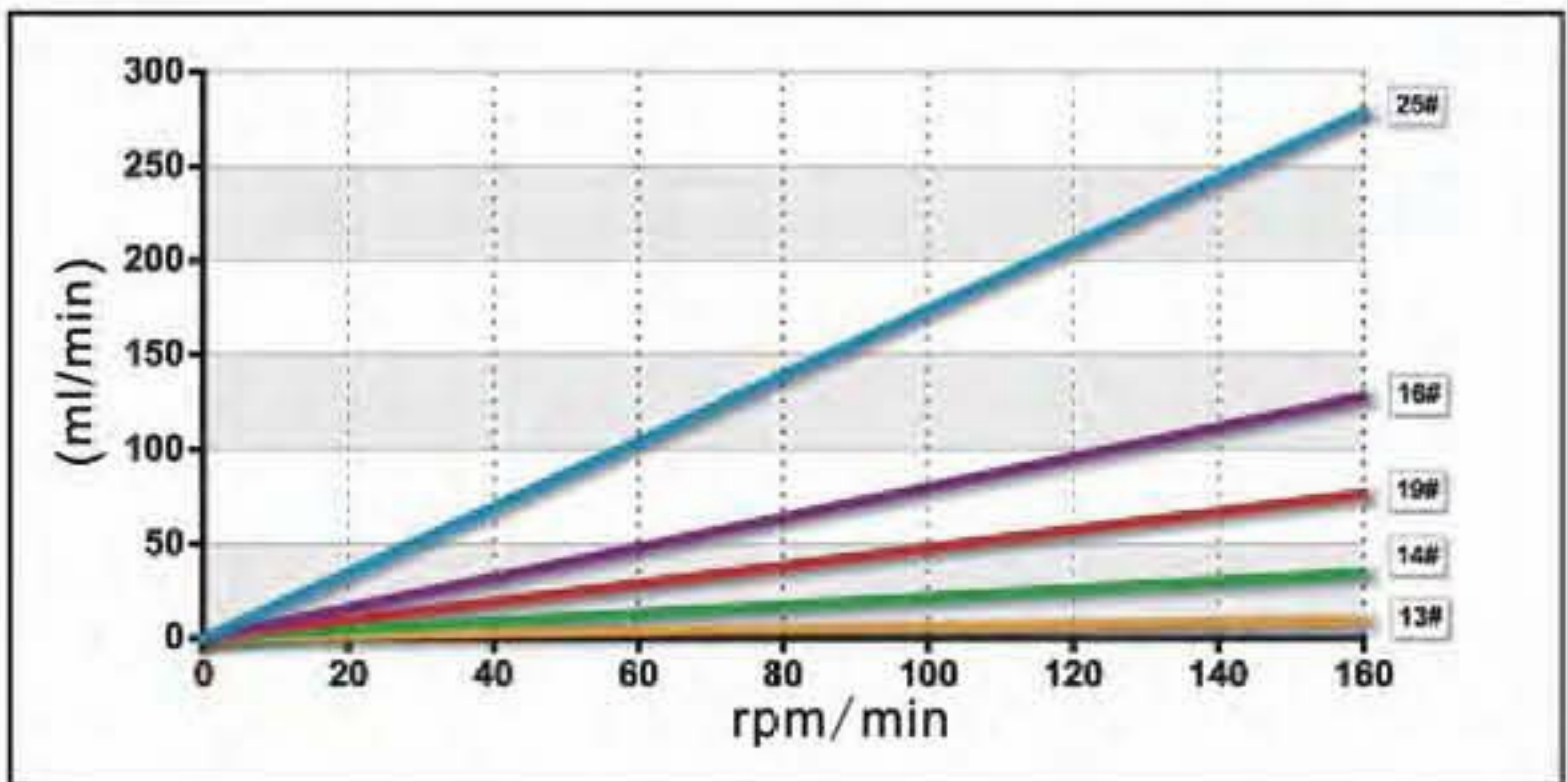
MC10



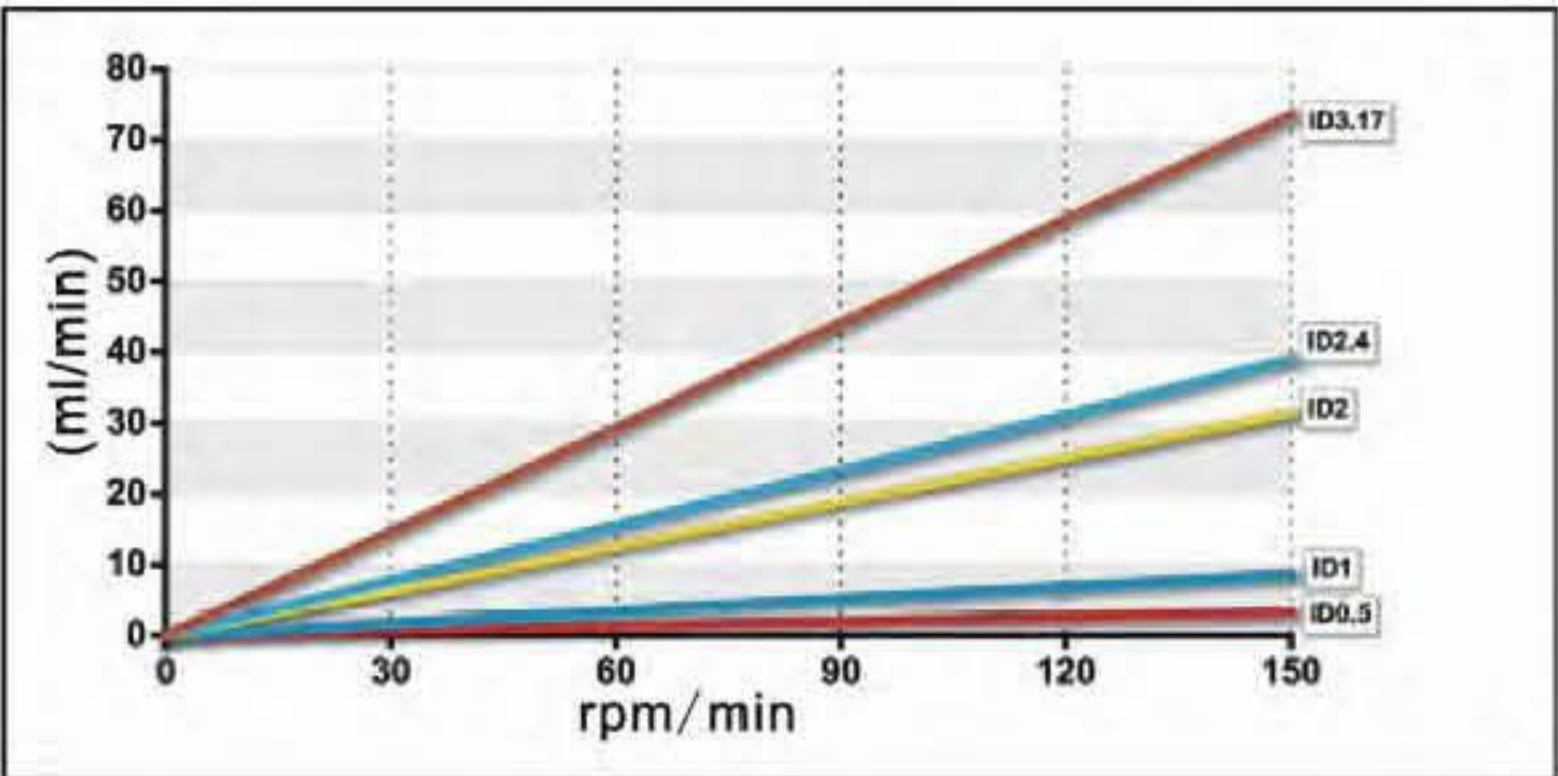
FZ10



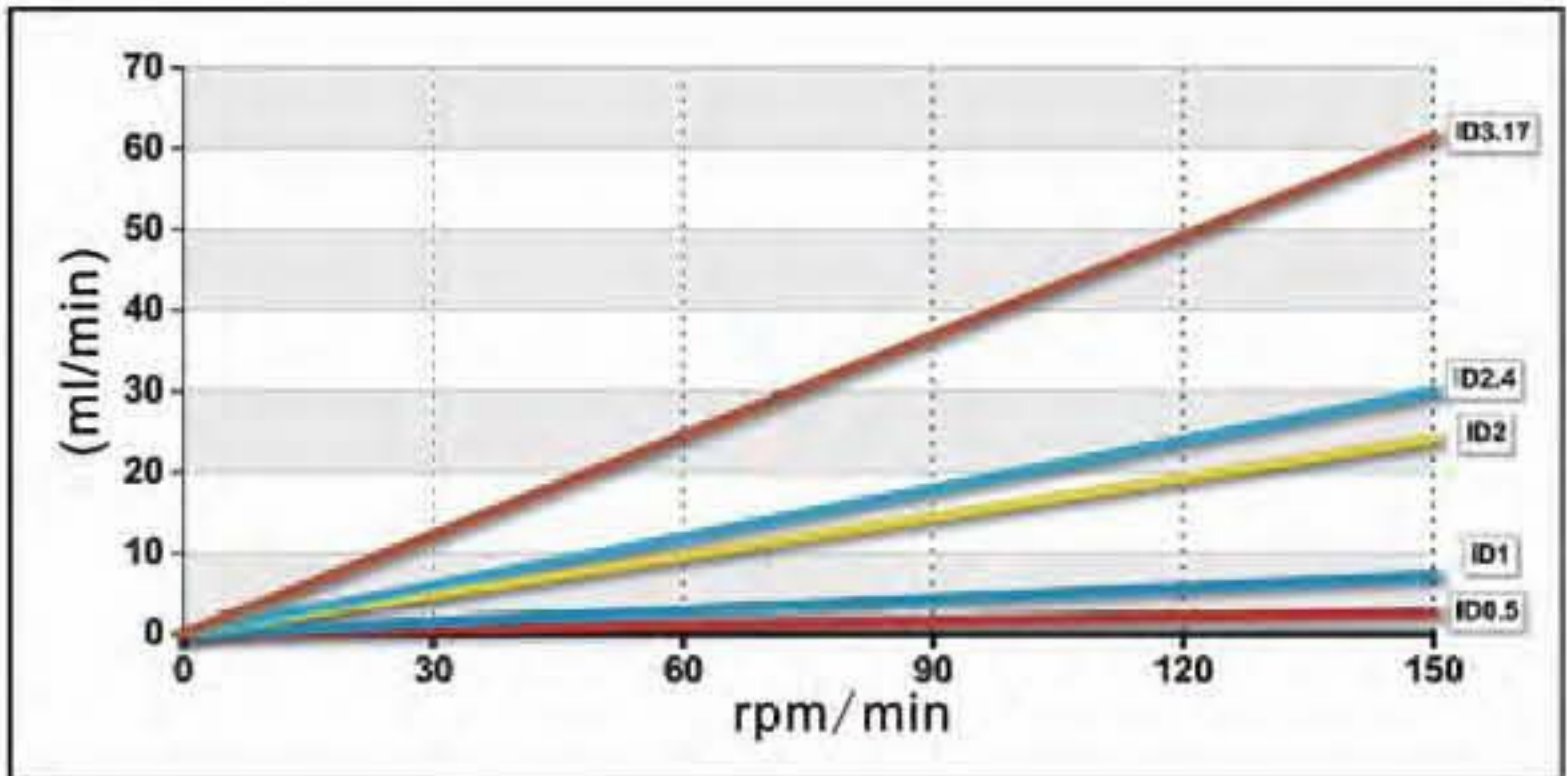
TH15



DG-6



DG-10





Lead Fluid Silicone Tubing

Designed for high-purity applications, Lead Fluid Silicone Tubing's ultra-smooth inner bore can reduce the risk of particle entrapment and microscopic buildup during sensitive fluid transfer. In-house analysis of the inner surface of Lead Fluid silicone Tubing compared to other silicone tubing shows that it is up to

three times smoother. Additionally, this smoother fluid path facilitates complete system cleaning and sterilization.



Tygon® R-3603 Vacuum Tubing

Tygon R-3603 Vacuum Tubing has extra-heavy walls that will withstand a full vacuum at room temperature (29.9" [759mm] of mercury at 73°F [23°C]) And up 27" [686mm] of mercury at 140°F [60°C].

Like standard Tygon® Laboratory Tubing, Tygon® Vacuum Tubing resists most inorganic chemicals and can be used in corrosive atmospheres.

Clarity allows monitoring for possible backups which could result in equipment damage. Tygon® Vacuum Tubing will not swell closed if vacuum pump oil should back up into it.

Low vapor pressure (low outgassing) makes it suitable for vacuum applications down to 3x 10⁻² mm Hg at 165°F (74°C). Ideal for analytical testing of gases or vapors. Well-suited for use in making manometers.



Norprene® Chemical Tubing

Features

- Long flex life in peristaltic pumps.
- Temperature range of -75°F to 165°F
- Superior chemical resistance.
- Plasticizer-free bore.
- Meets FDA criteria for food contact.
- Resists absorption of aqueous fluids.
- Virtually unaffected by chemical sanitizers

and cleaners

- Complies with FDA 21 CFR, 177.1520 criteria and is applicable for food contact applications.
- Unaffected by most commercial sanitizers and cleaners.
- Can be autoclaved for up to five cycle times without affecting its overall service life.



Pharmed® BPT Tubing

Pharmed® BPT Tubing is less permeable to gases and vapors than silicone tubing. It is ideal for cell culture, fermentation, synthesis, separation, purification and process monitoring and control. Independent tests show that PharMED® 65 Tubing is safe for use in sensitive cell culture applications. PharMED® BPT Tubing has very good general chemical resistance and excellent acid, alkali and oxidation resistance. Opaque to visible and UV light, it helps protect sensitive fluids.

Continuous Service temperature range is -60°F (-51°C) to 275°F (135°C).

Features

- Outlasts silicone tubing in peristaltic pumps by up to 30 times.
- Can be autoclaved repeatedly.
- Heat welding for sterile access in closed systems.
- Documented biocompatibility to the ISO 10993 standard.



Fluran® F-5500-A Severe Environment Tubing

The physical and chemical characteristics that make it ideal for severe environments, such as dry cleaning fluid lines and solvent recovery systems, where other flexible tubes fail. Fluran® Severe Environment Tubing can be used in continuous service with temperatures as high as 400°F (204°C) and has excellent resistance to corrosive chemicals, oils, fuels, solvents and most mineral acids.

This opaque, black tubing helps protect light-sensitive materials being transferred and will

not prematurely crack and age when exposed to ozone, sun and weather. It is highly flexible and resilient, making it the ideal choice in peristaltic pumping of extremely corrosive materials. A food grade formulation is available upon request.

- Provides continuous service at temperatures up to 400°F (204°C).
- Excellent resistance to corrosive chemicals, oils, fuels and solvents.
- Resists ozone, sunlight and weathering.



Footswitch



The external footswitch controls start/stop and dispensing function, suitable for whole series of out pumps.

Infrared remote control

Suitable for dispensing pump, controls the working status such as start/stop, dispensing, rotating direction, full speed and lock.



Hand dispenser



It can realize the external control peristaltic pump of start-stop, dispensing start, and be fitted a variety of tubes. Can hang, placed and adsorption on the chassis. It adopts human engineering mechanics design, attractive appearance and convenient to use.

Peristaltic Pump Accessories Dispensing controller

LT621 dispensing controller is main matched with speed-variable pump to dispense fluid semi-automatically, simple operation, large screen displays parameters, the information is intuitive and clear.

Technical parameter

- Display: white words on blue background, large screen.
- Parameters setting: key operation.
- Dispensing time: 0.01-9999 second, the resolution is 0.01second.
- Time interval: 0.10-9999 second, the resolution is 0.01second.
- Dispensing times: 1-9999 times or infinite loop.
- Applicable manual or external control for start/stop.



Peristaltic pump controller

Lead fluid controller assembles logic control, input&output of optically coupled isolator, digital LED indicator or LCD. It adopts advanced micro-processor, integrates the basic functions of stepping motor, can control numbers of stepping motors and DC servo motors, as adopting I/O interface with optically coupled isolator, it is convenient to control equipments automatically.

Technical parameters for LT920 controller

- Main function: suitable for controlling to complex facilities, touch screen upgrades the image of instruments, easy to operate.
- Analog: twelve bits ADC and DAC.
- Input: two channels with high-speed optically coupled isolator thirteen channels with common-speed optically coupled isolator.
- Output: four channels with high-speed output, nine channels with optically coupled isolator.
- Numbers of pump: four peristaltic pumps.
- Communication: RS485 interface(MODBUS protocol), RS232 interface can download programs from PC through it.
- Display: 320×240, 5.6 inches TFT color LCD.
- Operation: 5.6 inches four line touch screen.
- Power supply: DC24V.
- Installation: embed.

Pulse damper



Pulse damper is a pressure vessel that contains upside and downside cavities. The upside cavity is full of gas, when fluid is passing by downside cavity, the pulse can be absorbed by impressed gas instantly, corresponding to steady fluid.

Shell material : 1.PE
2.PTFE

Tubing connector



Lead Fluid company provides tubing connectors in variable specifications.

Materials: Nylon, PP, 304 stainless steel, etc.

Type: direct connector, size-changing connector, "T" type connector, "Y" type connector, Luer connector.

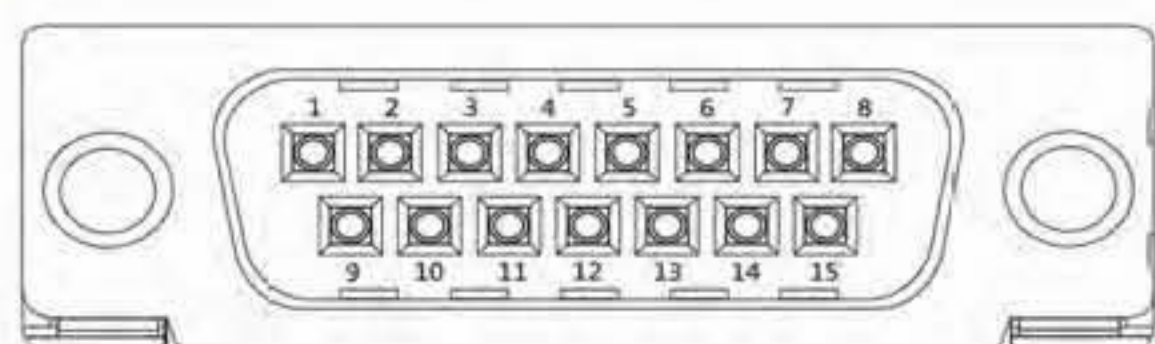
Applicable tubes:

1X1, 2X1, 2.4X0.8

13#, 14#, 19#, 16#, 25#, 17#, 18#

15#, 24#, 35#, 36#

Standard external control interface



Electrical interface specifications

In order to meet the client's need about different external control, we apply Rs485 interface to the whole series of peristaltic pumps.

Dispensing needle



Dispensing needle is mainly designed to prevent liquid-dripping when stop, it has reas-onable structure and easy to be installed.

Material: 316 stainless steel

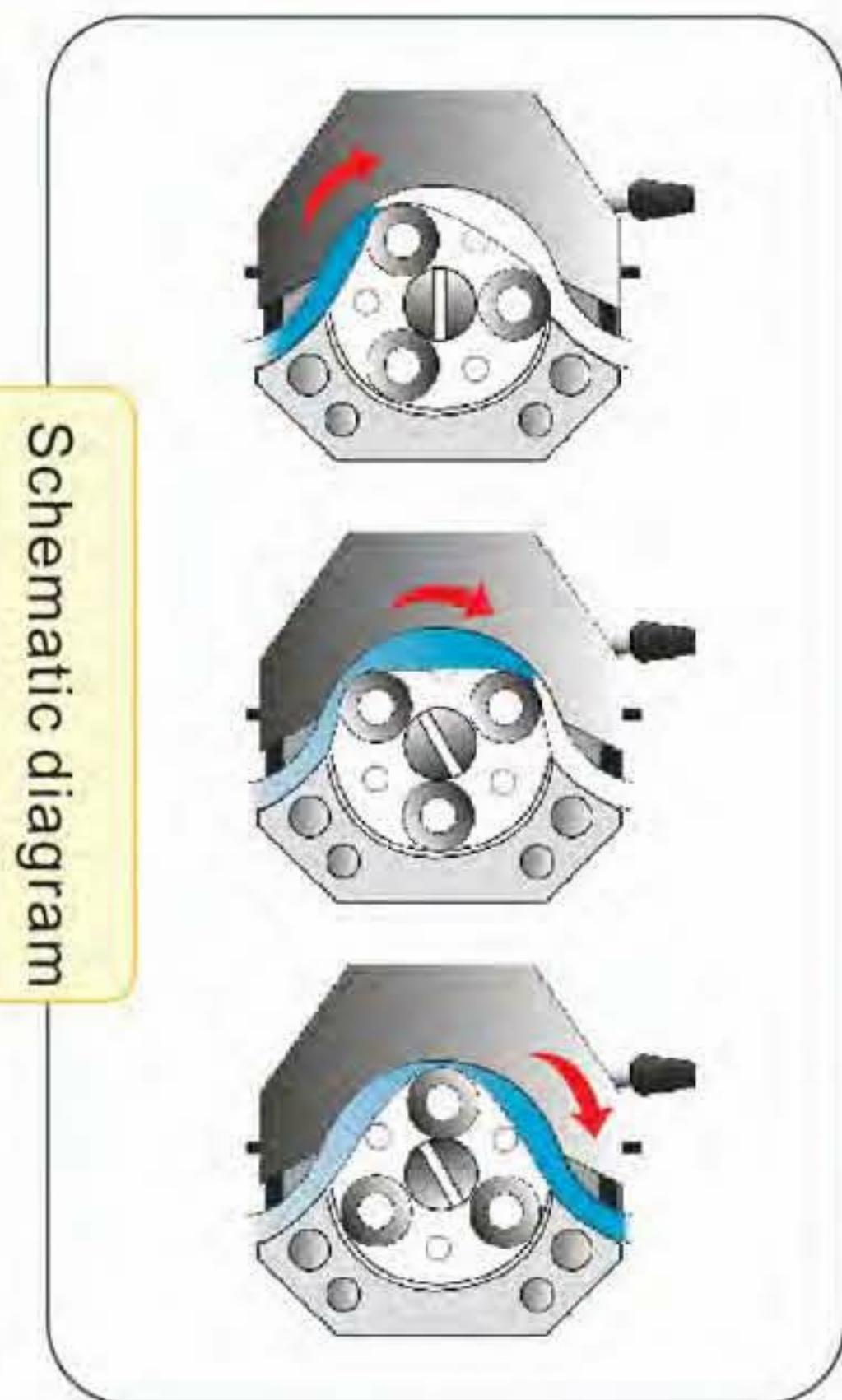
Applicable tubes:

1X1, 2X1, 2.4X0.8

13#, 14#, 19#, 16#, 25#, 17#, 18#

15#, 24#, 35#, 36#

DB15	Mark	Note
1	ADC_W	Positive of external analog input
2	B	Communication interface, B pole of RS485
3	A	Communication interface, A pole of RS485
4	VCC_W	External DC power input
5	DAC	Analog voltage signal output
6	CW_W	External input signal to control direction
7	PWM	Pulse signal output
8	COM	Ground of external power
9	AGND	Negative of analog signal input
10	+12V	Positive of internal +12V power source
11	GND	Ground of Internal power source
12	CW	Direction signal output
13	RS_W	External start/stop signal input
14	PWM_W	Pulse signal input
15	RS	Start/stop signal output



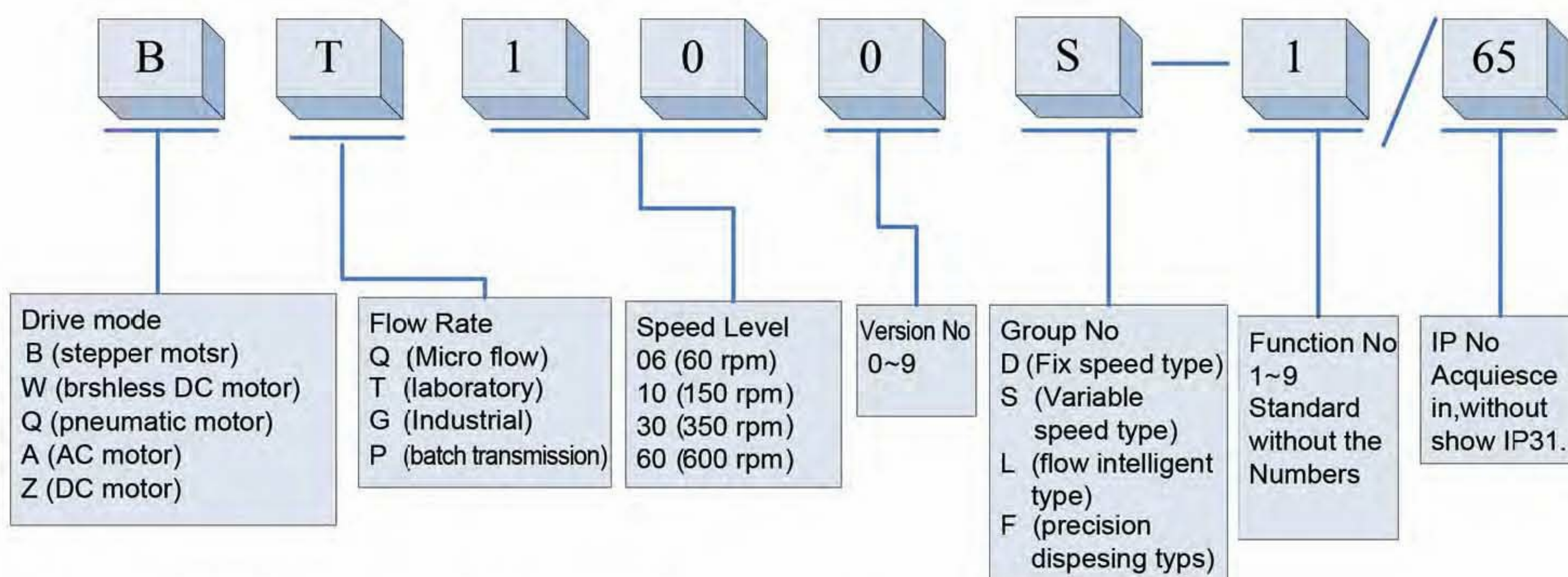
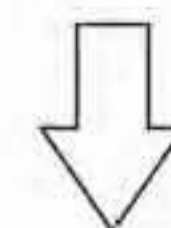
Introduction of Working Principle and Selection of Peristaltic pump

The most significant advantage of peristaltic pump is to use tubing as pump chamber, the pump and fluid don't pollute with each other. Only need to change another tubing when it cleans, it can greatly save high time cost of dismounting and maintance.

Peristaltic pump can transmit fluid in following industries: food processing, pharmzcy, chemical process, laboratory studies, agriculture and water treatment. Specific applications including: distribution, sampling, measurement, filtering, fermentation. In a short, as long as it is fluid, peristaltic pump can pump Peristaltic pump is an ideal choice, as it can pump the fluid of abrasive & corrosive many cases.

For one best peristaltic pump, the key is that choosing suitable pump head, tubing and drive. The special application should choose the function of peristaltic pump. For the specific need, we can provide pump head, tubing materials and tubing size with different specifications. Different combination can deal with different liquid transmission requirements.

Naming structure chart of Lead Fluid Peristaltic Pumps



How to select suitable Lead Fluid Peristaltic Pump

Applying requirements	Main items	Solution
Flow rate(ml/min)	Flow range 0.00016-720ml/min	Choose BT10**drive+YZ15/YZ25/DG pump head+suitable tubing
	Flow range 0.006-1600ml/min	Choose BT30**drive+YZ15/YZ25 pump head+suitable tubing
	Flow range 0.006-2900ml/min	Choose BT60**drive+YZ15/YZ25 pump head+suitable tubing
	Flow range 10-13000ml/min	Choose WG600**drive+YZ35 pump head+suitable tubing
Functions of peristaltic pump	Timing transmission, LED displays speed, Speed-variable & constant transmission	BTXXS drive+pump head+suitable tubing
	Timing transmission, flow rate, volume accumulating	BTXXL drive+pump head+suitable tubing
	Dispensing	BTXXF drive+pump head+suitable tubing

Channel number	Minimum flow, 1-12channels	BT10**drive+DG pump head+suitable tubing
	Minimum&small flow, 1-4channels	BT10**drive+YZ15 pump head+suitable tubing
	Minimum flow 1-2channels	BT30**/BT60drive+YZ15/YZ25 pump head+suitable tubing
Chemical properties of fluid	Acid, alkali, organic compounds	Select right tubing via checking chemical consistency chart of tubing
Control manner	Local control&remote control	All series of Lead Fluid pumps can satisfy both local control and remote control

Customers special requirements or any other questions, please call engineers of LeadFluid, we will provide you satisfied answers.

General questions about peristaltic pump

1. What kind of patented technology Lead Fluid drive adopts that can not find in other manufactures?

Lead Fluid drive has patented technology:

- (1) Color LCD display and touch screen control,
- (2) Easy dispensing function,
- (3) Intelligent temperature control,
- (4) Infrared remote control,
- (5) MODBUS communication protocol,
- (6) Intelligent expert guide system.

2. What about the flow accuracy of peristaltic pump?

Adopt calibrated flow of the pump, the flow error is lower than $\pm 0.5\%$, it has the accurate measurement function, volume rate error lower or equals to $\pm 0.25\%$.

3. How to reduce the impulse of peristaltic pump?

- (1) In the same flow, choose thinner tubing: With thinner tubing pump, the flow of each turn is smaller, the pulsation amplitude is smaller.
- (2) Use the pulse damper, air compress can absorb impulse.
- (3) Add the number of roller: increase the rate of impulse frequencies; reduce the amplitude of impulse.
- (4) Use two pump heads, stick stagger angle: using pulse cross complementary eliminate pulse.
- (5) Adopt the back pressure: output with pressure make the tubing transformed to absorb impulse.

4. What's the practical application of easy dispensing function?

Laboratory and industry production usually need timing and quantitative charging, this function can control time of each charging and the fluid volume in a certain time, then realizes timing and quantitative charging.

5. What kind of external controls does peristaltic pump adopt?

Except the voltage, electric current control and TTL electrical level control, communication interface has two kinds: RS232 and RS485. Dispensing pump also has infrared remote control.

6. Can the peristaltic pump accept the remote control in industry sites? Which kind of communication protocol?

Yes. Adopt international standard MODBUS communication protocol. MODBUS is a common language applies in electronic controller. Through this protocol, they can communicate between electronic controller and electronic controller via internet and other equipments. It has become common industry standard. If you have it, equipments from different manufactures can be connected with industrial network.

7. What's the meaning of intelligent expert guide system? What's its useful?

Provide information for user, guide new users to proper operate peristaltic pump and get the test data exactly.

8. What kinds of dispensing functions does Lead Fluid have? What features?

Three kinds of dispensing; (1) Fluid volume dispensation: input fluid volume parameters dispensing by fluid volume. Input flow volume dispensing by flow volume, time calculate by peristaltic pump. It is suitable for careless time. (2) Time dispensation: Input time dispensing volume by time. Input liquid volume dispensing by liquid volume, flow volume calculate by peristaltic pump. It is suitable for time demand. (3) Copying dispensation. Set a quantitative to copy dispensing. It is suitable for general accurate situation, to dispensing a volume one by one, simple operation.

9. What kinds of materials to use in Lead Fluid peristaltic pump YZ pump head? What chemical properties?

Lead Fluid peristaltic pump YZ pump head adopts PPS pump case, 304 stainless steel roller; resistance to organic solvents and other corrosion liquid, solid and durable.

10. Can one drive loads several pump heads?

Yes, several easy-load pump heads or stand pump heads could be loaded by one drive, DG pump head can be multi-channels (up to twelve) with no overload.