



Peristaltic pump
Syringe pump

LEAD FLUID

TECHNOLOGY



flow peristaltic pump-syringe pump-gear pump professional manufacturer

www.leadfluid.com.cn



Lead Fluid Technology Co., Ltd. was established in October 1999. It is a high-tech joint-stock company, mainly engaged in Peristaltic Pump, Syringe Pump, gear pump and related precision control of fluid research and development, production and sales. We undertake all types of intelligent flow control system design, transformation, debugging and technical advice.

Lead Fluid Peristaltic Pump products won the support of Hebei innovation fund in 2012 year. At the end of 2014, the new Peristaltic Pump had successfully passed quality acceptance by the Hebei innovation fund project. In September, 2015, Lead Fluid successfully obtained the high-tech enterprises appellation authorized by Hebei province.

Focus on the core technology, pursue of excellence in quality.

Based on honest, cohesion and innovation, set up an industry Sixteen example. year's aggressive development, became one industry leaders. Baoding Lead Fluid Technology Co., Ltd., endeavor to become industry leaders, to supply innovative delicate pumps for the transmission of the flow.



certificate of patent



CE certification



ISO9001 certification



RoHS certification





The Secretary of Baoding Municipal Committee visit Lead Fluid to investigate and study



The leader of the Technology Bureau of Baoding city visit Lead Fluid to investigate and study



The agent of the France visits Lead Fluid



The agent of the Taiwan visits Lead Fluid



The client of Germany



Team Cooperation
Do your best everytime



food, liquid drug filling

glue soluting addition glass fiber coating

industrial washing machine metallurgy

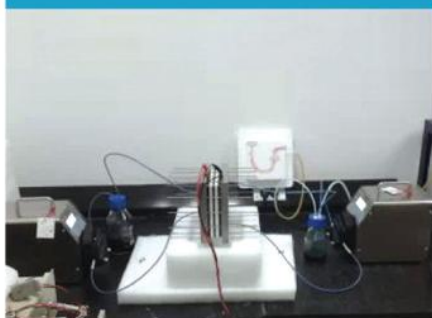
**Lead fluid peristaltic pump
typical application**



injection machine
indium addition



Lab Application



juice filling

lampblack-generator



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BT300S	0.006 ~ 1600(ml/min)	15-16
BT600S	0.006 ~ 2900(ml/min)	15-16
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BT600F	0.006 ~ 2900(ml/min)	21-22
BT101F	0.0001~720(ml/min)	23-24
BT301F	0.006 ~ 1600(ml/min)	23-24
BT601F	0.006 ~ 2900(ml/min)	23-24

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BT100F-1	0.00011~1700(ml/min)	25
WT300F	0.06~4000(ml/min)	26

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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.



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	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	>16kgf	>20kgf	>16kgf	>16kgf	>20kgf
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, 480 * 272 resolution, color 65k; 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 way down along the priming, 1 way down along the trigger to stop;				
Communication interface	RS485, MODBUS protocol;				
Dimension (L X W X H)	245x195x133mm	290x205x141mm	245x195x133mm	245x195x133mm	290x205x141mm
Weight	3.2kg	4.4kg	3.2kg	3.2kg	4.4kg
Applicable power	AC90V-264V/20W				
working temperature	5-40°C				
Relative humidity	<80%				



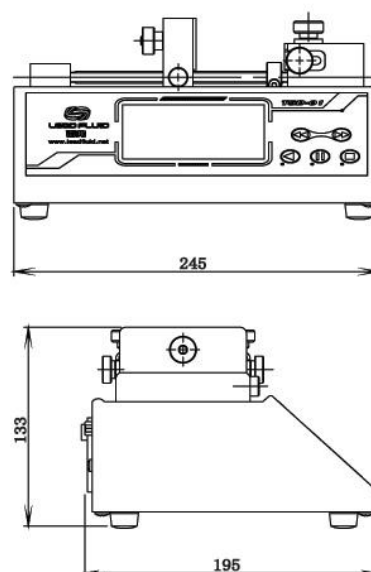
Single Channel



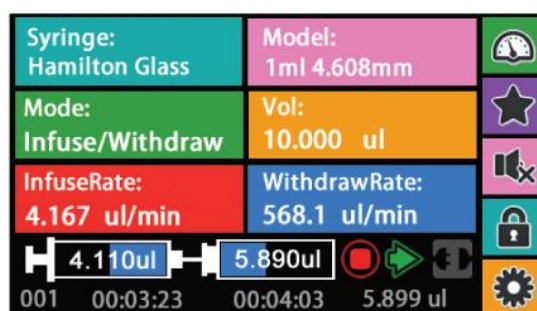
double

Selection of reference

Syringe size	Syringe ID(mm)	TYD01-01 TYD01-02	TYD02-01 TYD02-02	TYD03-01
		flow range(nl/min ~ ml/min)		
10μl	0.485	0.184-0.027		0.037-0.005
25ul	0.729	0.417-0.626		0.083-0.125
50ul	1.03	0.833-0.125		0.166-0.025
100ul	1.457	1.667-0.250		0.333-0.050
250ul	2.304	4.169-0.625		0.833-0.125
500ul	3.256	8.326-1.248		1.665-0.249
1ml	4.699	17.342-2.601		3.468-0.520
5ml	11.989	112.890-16.933		22.578-3.386
10ml	14.427	163.469-24.754		32.694-4.904
20ml	19.05	285.027-42.754		57.004-8.550
30ml	21.59	366.090-54.913		73.219-10.982
60ml	26.594	555.459-83.318		111.093-16.663

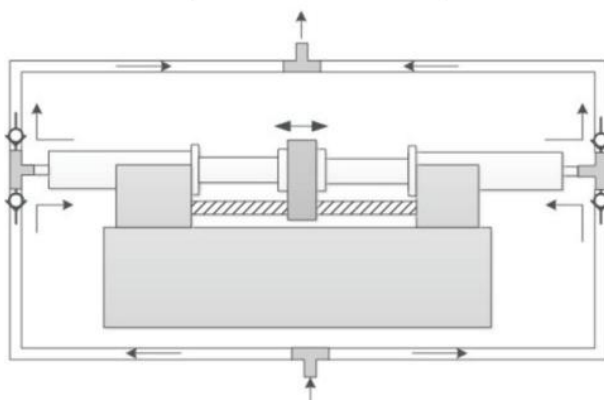
 Appearance size
(TYD01-01)


Display panel and operation keypads





Principle diagram



Syringe size and flow rate reference

Syringe size	Syringe ID(mm)	flow range(nl/min~ml/min)
10μl	0.485	0.184-0.027
25ul	0.729	0.417-0.626
50ul	1.03	0.833-0.125
100ul	1.457	1.667-0.250
250ul	2.304	4.169-0.625
500ul	3.256	8.326-1.248
1ml	4.699	17.342-2.601
5ml	11.989	112.890-16.933
10ml	14.427	163.469-24.754
20ml	19.05	285.027-42.754
30ml	21.59	366.090-54.913
60ml	26.594	555.459-83.318

Two-way push-pull syringe pump TSD01-01

TSD01-01 is a small flow, high precision, can be continuous transmission liquid syringe pump. 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.** High resolution color LCD, touch screen is convenient fast set parameters, multiple light clear confirmed its working state. And support for multiple syringe to choose, to meet the requirements of different experimental flow and high precision control, and protection agencies and alarm mechanism. Support injection extraction and so on five kinds of working mode. Built-in RS - 485 communication, support the MODBUS protocol, full metal shell, wide range power input, adapt to various occasions.

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.

Touch screen display operation interface



The parameters:

- Syringe size: 10 ul-60 ml.
- Work mode: infusion, withdraw, infusion/withdraw, withdraw/infusion, continuous mode.
- Display: 4.3 inch color LCD, 480 X 272 resolution, color 65 k; With screen display and transfusion volume, quantity of liquid, flow, operation direction, syringe specification, etc.; Animation display operation status.
- Operation mode: touch screen + button.
- Linear travel accuracy: error < ±0.35% (>30% of pump stroke).
- Linear force: maximum rated: > 20kgf.
- linear speed: 1 um/min - 150 um/min.
- State signal output: 1 road stop state, 1 state road direction.
- Power supply: AC90-264 - v / 20 w.
- working temperature: 5 to 40 °C; < 80% RH.
- Dimension: 290 * 205 * 141 mm
- Weight: 4.4 kg

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.



TYD02-10

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 speed	1um/min – 150mm/min	
Linear resolution	1um/min	
Linear travel accuracy	error<± 0.35% (> 30% of pump stroke)	
maximum rated Linear force	>20kgf	
Thrust regulation	1-100% arbitrary adjustable.	
Syringe size	10uL-10mL	
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, 480 *272 resolution, color 65 k. 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 way down along the priming, 1 way down along the trigger to stop.	
Communication interface	Rs485, MODBUS protocol.	
Dimension (LxWxH)	290×230×175	290×280×175
Weight	4.8kg	5.2kg
Applicable power	AC90V-264V/20W	
working temperature	5-40°C	
Relative humidity	<80%	



TYD02-04

Specific usage please consult Lead Fluid technology department

Selection of reference

Syringe size	Syringe ID(mm)	flow range(ml/min~ml/min)
		TYD02-04 TYD02-10
10μl	0.485	0.184-0.027
25ul	0.729	0.417-0.626
50ul	1.03	0.833-0.125
100ul	1.457	1.667-0.250
250ul	2.304	4.169-0.625
500ul	3.256	8.326-1.248
1ml	4.699	17.342-2.601
5ml	11.989	112.890-16.933
10ml	14.427	163.469-24.754



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 force: 1um/min-150mm/min**

The parameters:

- The software system: LF-Touch-GUI (standard). LF- LabComSoft computer control software (optional)
- Syringe specification: 5 ul - 1000 ul.
- Work mode: infusion, withdrawal, infusion/withdrawal, withdrawal/infusion, continuous mode.
- Channel number: 1.
- Max stroke Range: 70 mm.
- Stroke resolution: 0.198 um/ustep.
- Linear velocity range: 0.635 um/min to 95.25 um/min.
- The linear velocity regulating resolution: 0.635 um/min.
- Linear travel accuracy: error < plus or minus 0.5% (30%) stroke > maximum stroke.
- Linear thrust, maximum rated: > 20 N.
- Thrust adjustment: 1-100% arbitrary adjustable.
- Syringe selection: built-in syringe manufacturers, choose using model; Or custom syringe, direct input syringe diameter.
- Flow calibration: through the calibration procedure to obtain more accurate fluid volume.
- Display: 4.3 inch color LCD, 480*272 resolution, color 65 k. With screen display and transfusion volume, quantity of liquid, flow rate, direction, syringe specification, etc.. Animation display operation status.
- Operation mode: touch screen + commonly used functions button.
- Power-off memory: keeping previous parameters.
- Other features: pause and stop, the sound tip, The lock parameters, Fast forward and retreat quickly.
- State signal output: 1 road stop state, 1 road for direction.
- Control signal input: 1 way down along the priming start, 1 way down along the trigger to stop.
- communication interface: RS485, MODBUS protocol.
- Power supply: AC90-264 - v / 20 w.

- State signal output: 1 road stop state, 1 road for direction.
- Control signal input: 1 way down along the priming start, 1 way down along the trigger to stop.
- communication interface: RS485, MODBUS protocol.
- Power supply: AC90-264 - v / 20 w.
- Working temperature: 5 to 40°C.
- Working relative humidity: < 80% RH.
- Controller dimension size: 245 * 195 * 133 mm
- Drive dimension: 70*44*194mm
- Weight: 3.2kg

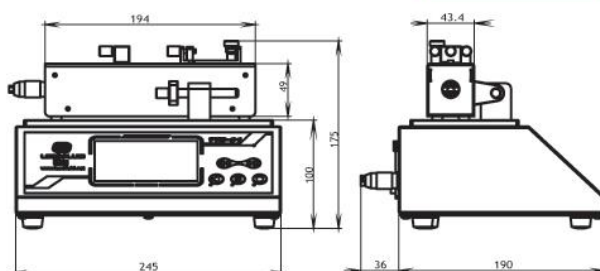
Function and Features:

- Can assemble a LF-Touch-GUI software system, stable and reliable running, powerful function. Image of the animation and icon is displayed, and colorful interface, convenient touch screen operation, the commonly used function keys, make the device more easy to use. A variety of working mode choice.
- Fission design, easy to installation and fixation.
- 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.
- RS485 communication, support the MODBUS protocol.
- External signal control start-stop and direction.
- A wide range of power input.
- Full metal shell.

Selection of reference

Syringe size	Syringe ID(mm)	Min. flow rate (nl/min)	Mix. flow rate (ml/min)
5µl	0.343	0.058	0.009
10µl	0.485	0.117	0.017
25µl	0.728	0.264	0.039
50µl	1.03	0.529	0.079
100µl	1.457	1.058	0.158
250µl	2.303	2.645	0.396
500ul	3.257	5.290	0.793
1000ul	4.606	10.580	1.587

Appearance size



NEW



Technical parameters:

flow accuracy : error \leq 1% (rated full travel)

flow repeatability : repeatability \leq 0.5%

rated travel(control the step) : 30mm(3000 steps)

linear velocity:0.005mm/s-25mm/s

rated travel time:1.2s-6000s

Control Resolution:0.01mm(1 step)

drive mechanism: lead screw and slide rail

Max driving force of the piston : \approx 76N

Sub-driving force of the piston : \approx 38N

used for syringe model : 50 UL , 100 UL , 250 UL ,

500 UL , 1 mL , 2.5 mL , 5 mL

valve type : 4 interfaces-90° valve(Standard)

3 interfaces-120° valve(Optional)

communication interface :RS485/RS232 can setup

communicate baud rate :9600/38400

transposition time of the valve : 280ms

material of the liquid: borosilicate glass 、 PTFE、 PCTFE

Max pressure of the liquid : 0.7Mpa

tube interface :1/4"-28 inner thread

syringe interface:1/4"-28 inner thread

Industrial syringe pump G3030-1S

G3030-1S is 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.

Signal input:2 gates TTL (inner Opto-couplers isolation , used to restart after pause) Signal input(drive current > 16mA)

Signal Output : inner Opto-couplers isolation of OC gate , (TTL) Used to indicate Work instructions state

device parameter setting : 7 groups DIP switch

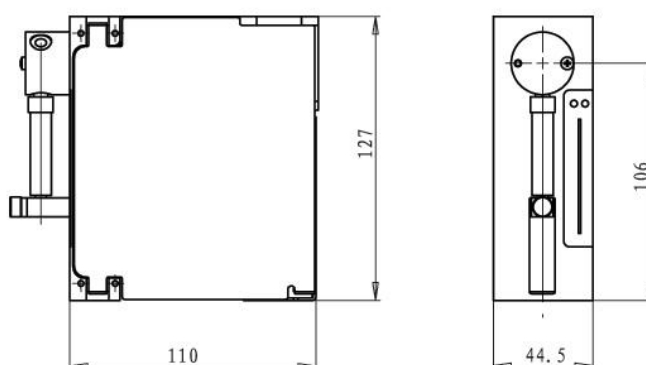
Dimension(L×W×H) : 110×44.4×127(mm)

Adapter power : 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
4 interfaces-90° valve	1/4"-28UNF	PTFE/PCTFE

Dimension



syringe



coupling

syringer model and flow

character	great pressure excellent chemoresistance	long-living excellent chemoresistance	longer-living poor chemoresistance
size	heavy load syringe PTFE-Seals	improved syringe PTFE-Seals	Low friction syringe PTFE-Seals
50ul	2607615	2647617	2647618
100ul	2607715	2647717	2647718
250ul	2607815	2647817	2647818
500ul	2607915	2647917	2647918
1ml	2607015	2647017	2647018
2.5ml	2607035	2647037	2647038
5ml	2607075	2647077	2647078

couping

m o d e l	screw Connection	suitable tube
008NC32-YC5U	1/4"-28UNF	1/8" (3.2mm)
008NC16-YC6U	M6	1/16" (1.6mm)
008NC16-YC5U	1/4"-28UNF	1/16" (1.6mm)
008NC32-YC6U	M6	1/8" (3.2mm)

locking cone

m o d e l	Pipe diameter
008CZ16	1/16" (1.6mm)
008CZ32	1/8" (3.2mm)

washer

model	screw Connection	Pipe diameter
4132032	1/4"-28UNF	1/8" (3.2mm)

PTFE tube

m o d e l	inner diameter	Pipe diameter
008T32-150-10	1 . 6 m m	3 . 2 m m
008T16-050-20	0 . 5 m m	1 . 6 m m
008T16-100-20	1mm	1.6mm



locking cone



washer



PTFE tube

NEW



Technical parameters:

- The flow range: 9-2700 - ml/min
- Speed range: 30-3000 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 86-286 v / 50 w
- Protection grade: Ip31
- Dimension: 223 * 150 * 195 mm
- Weight: 3.68 kg

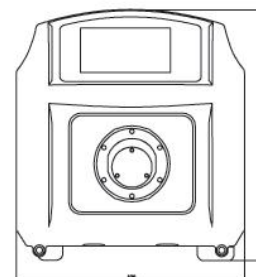
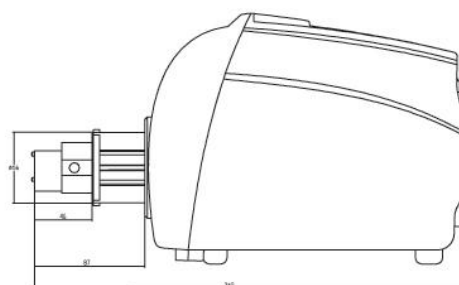
The micro gear pump CT3001F

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.

Function characteristics:

- LF-EasyChange universal design, strong expansibility, support for multiple pump head installation and use
- LF-Touch-GUI software system, stable and reliable operation, powerful functions. Image of the animation and icon is displayed, and colorful interface, convenient, touch screen operation, the commonly used function keys, make the device more easy to use.
- It is suitable for transmission more viscous, high pressure liquid.
- No pulse transmission, low noise.
- The magnetic coupling is designed, easy to maintain.
- Brushless servo drive, high efficiency, no maintenance.
- Color LCD display, touch screen operation.
- Flow qty display, flow rate controllable.
- A variety of work mode.
- Flow calibration wizard, ensure the accuracy of fluid volume.
- Intelligent temperature control function.
- External control signal control, physical isolation, analog control.
- RS485 communication, support the MODBUS protocol
- Streamlined plastic shell.
- Wide range of power input, adapted to different environment.

Appearance size



Selection of reference

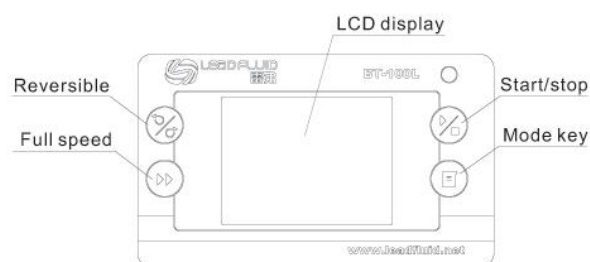
Pump head model	Gear material	Transfer pressure(Mpa)	Single channel Flow rate(ml/min)
MG204XD0PT00000	PEEK	0.8	14-900
MG204XD0TT00000	PTFE	0.8	14-900
MG209XD0PT00000	PEEK	0.8	30-1800
MG209XD0TT00000	PTFE	0.8	30-1800
MG213XD0PT00000	PEEK	0.3	46-2700
MG213XD0TT00000	PTFE	0.3	46-2700

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:	<0.2%		
Power supply:	AC220V ± 10% 50/60Hz(standard); AC110V± 10% 50Hz/60Hz(optional).		
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



BT100L/300L/600L Drive with different pump heads combination

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

Drive type	Pump head	Channel number	Tubing(mm)	Single channel Flow rate(ml/min)
BT100L	DG (6rollers)	1, 2, 4	Wall0.8~1, ID≤2.4	0.00016~26
	DG (10rollers)	1, 2, 4	Wall0.8~1, ID≤2.4	0.00011~20
	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#	0.006~420
	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#	0.17~720
	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
BT300L	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
BT600L	YT25	1	15#24#35#36#	0.16~1600
	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.

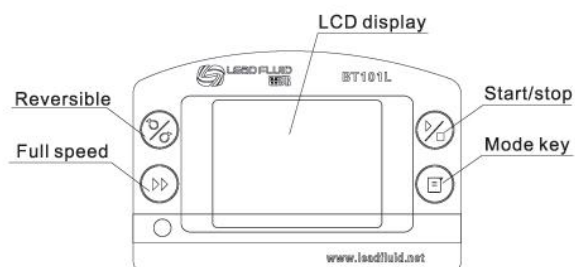
Function and Feature

- 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.



- 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.

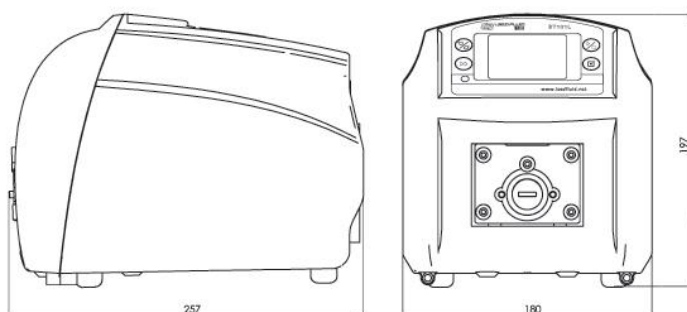
Display Panel and Operating Keypads



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 :	AC220V ± 10% 50/60Hz(standard) ; AC110V± 10% 50Hz/60Hz(optional).		
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≤2.4	0.00016~26
	DG(10rollers)	1, 2, 4	Wall0.8~1, ID≤2.4	0.00011~20
	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
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 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.
- Can input the electrical level 5V, 12V or 24V.
- RS485 interface, MODBUS protocol is available, easy to connect other equipments.



DW head series

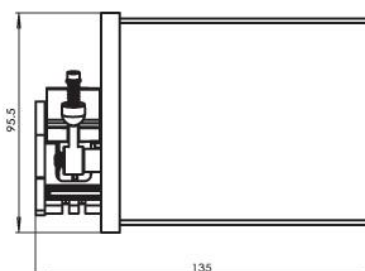
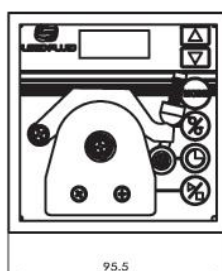


FZ10 head series



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:	AC220V \pm 10% 50/60Hz(standard) ; AC110V \pm 10% 50Hz/60Hz(optional).
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



80S Applicable Pump head and tubing, flow parameters

Drive type	Pump head	Channel number	Tubing(mm)	Flow rate(ml/min)
BQ80S	FZ10	1	Wall 0.8~1, ID \leq 3.17	0.05~40
	DW10-1	1	Wall 0.8~1, ID \leq 3.17	0.005~32
	DW10-2	2	Wall 0.8~1, ID \leq 2.54	0.005~19
	DW10-3	3	Wall 0.8~1, ID \leq 3.17	0.005~32
	DW15-1	1	13#14#16#19#25#	0.005~64

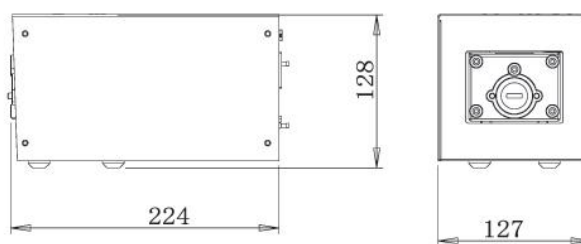
BT50S/BT102S Micrometer Speed-Variable Peristaltic Pump Introduction

- 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	AC220V \pm 10% 50/60Hz(standard); AC110V \pm 10% 50Hz/60Hz(optional).	
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)	Flow rate(ml/min)
BT50S	DG	1、 2	Wall0.8~1 , ID≤2.4	0.00011~13
	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≤2.4	0.00011~26
	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 setup 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, RTU, ASCII, TCP three modes can be chosen .easy to connect any equipments.
- Optional footswitch, convenience for using.

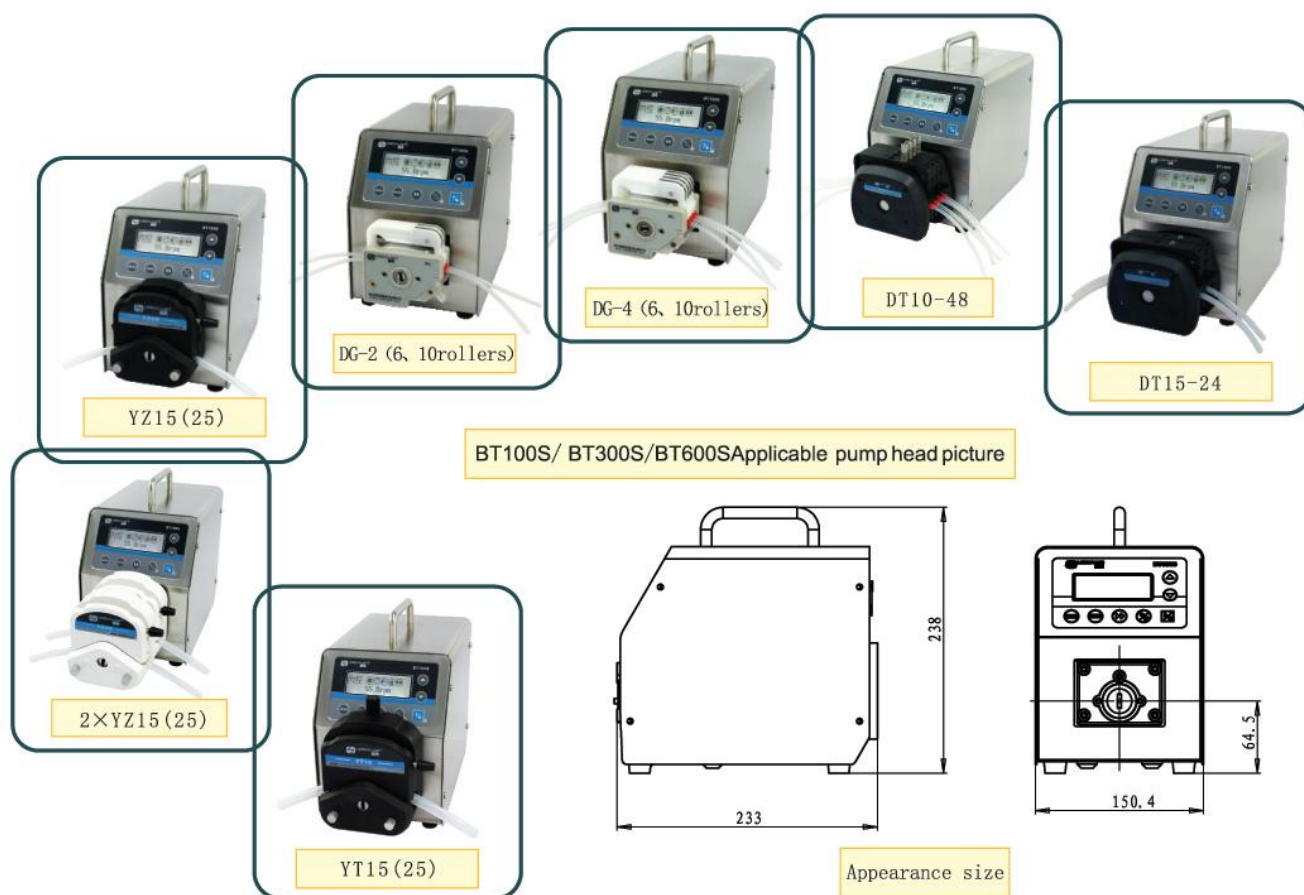


CE

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:	AC220V ± 10% 50/60Hz(standard), AC110V ± 10% 50Hz/60Hz(optional).		
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)	Flow rate(ml/min)
BT100S	DG (6rollers)	1、2、4	Wall0.8~1, ID≤2.4	0.00016~26
	DG (10rollers)	1、2、4	Wall0.8~1, ID≤2.4	0.00011~20
	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#	0.006~420
	YZ25	1、2	15#24#	0.16~420
	YT15	1、2	13#14#16#19#25#17#18#	0.006~570
BT300S	YT25	1、2	15#24#35#36#	0.16~720
	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.

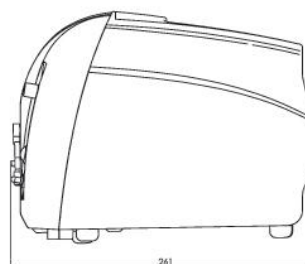
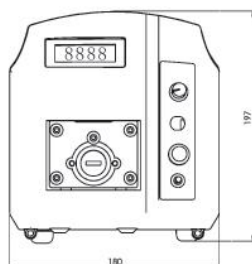
Function and Feature

- Four-figure digital LED indicator displays working speed.
- The LED indicator displays the internal , external control mode.
- Mask keypad operation.
- 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	AC220V \pm 10% 50/60Hz (standard) , AC110 \pm 10% 50Hz/60Hz (optional) .		
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

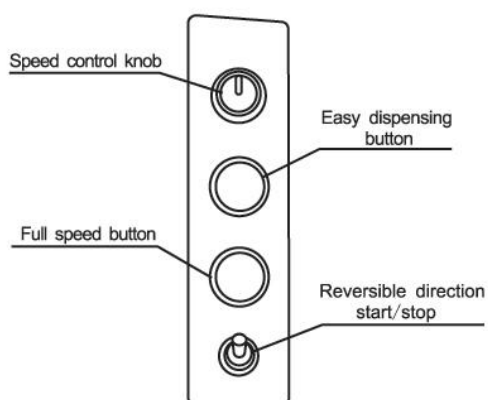
Appearance size



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≤2.4	0.00016~26
	DG (10rollers)	1, 2, 4	Wall0.8~1, ID≤2.4	0.00011~20
	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



Display Panel and Operating Keypads

DG-1 (6, 10rollers)



DG-2 (6, 10rollers)



DG-4 (6rollers)



YT15 (25)



YZ15 (25)



DT10-18





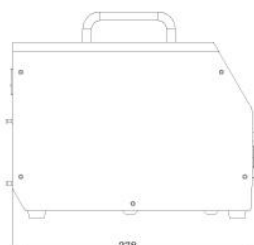
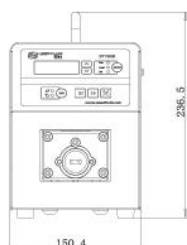
BT100S-1 Basic Speed –Variable Peristaltic Pump

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

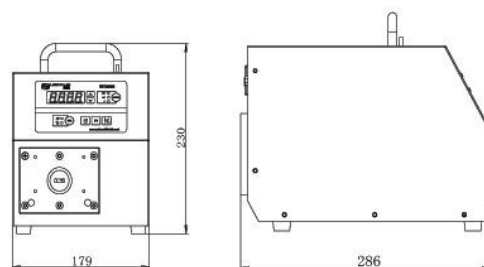
- Flow range: 0.00011-1500ml/min
- Speed accuracy: < 0.5%
- Speed range: 0.1-150rpm.
- Speed resolution: 0.1-100 rpm, the speed resolution is 0.1 rpm , 100-150 rpm, the speed resolution is 1 rpm
- Power supply: AC 220V±10%,50Hz/60Hz (standard)
AC 110V±10%,50Hz/60Hz (optional)
- Power consumption: < 40W
- External control:
Input electrical level 5V, 12V (standard),24V(o-Ptional).
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℃
- Relative humidity: < 80%
- IP grade: IP31
- Dimensions (LxWxH) 278mmx150mmx236mm
- Weight: 6.5 kg



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≤2.4	0.00016~26
	DG (10rollers)	8, 12, 16, 24	Wall0.8~1, ID≤2.4	0.00011~20
	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#	1~1700
	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

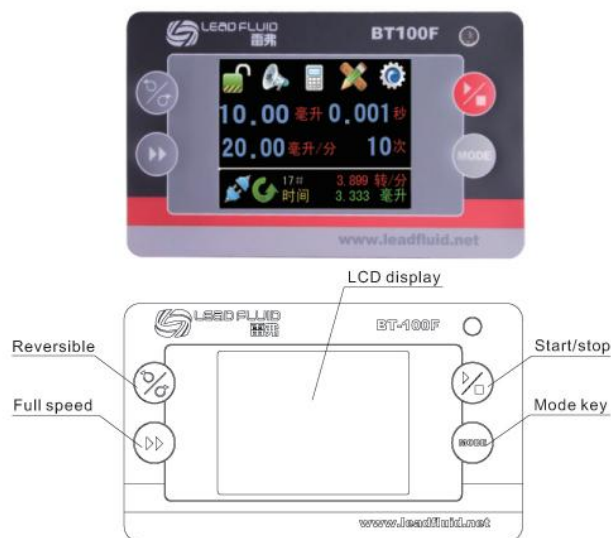
WT600S-65



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

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 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, 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	AC220V ± 10% 50/60Hz(standard), AC110V± 10% 50Hz/60Hz(optional).		
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≤2.4	0.00016~26
	DG (10rollers)	1、 2、 4	Wall0.8~1 , ID≤2.4	0.00011~20
	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	DT15-44	1、 2	13#14#16#19#25#17#	0.006~990
	YZ15	1、 2	15#24#	0.16~990
	YZ25	1	19#16#25#17#	0.05~930
	DT15-14	2	19#16#25#17#	0.05~930
	DT15-24	4	19#16#25#	0.05~610
	DT15-44	1、 2	13#14#16#19#25#17#18#	0.006~1300
	YT15	1	15#24#35#36#	0.16~1600
BT600F	YT25	1、 2	13#14#16#19#25#17#	0.006~1700
	YZ15	1、 2	15#24#	0.16~1700
	YZ25	1、 2	13#14#16#19#25#17#18#	0.006~2300
	YT15	1	15#24#35#36#	0.16~2900
	YT25			



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.

Brief introduction

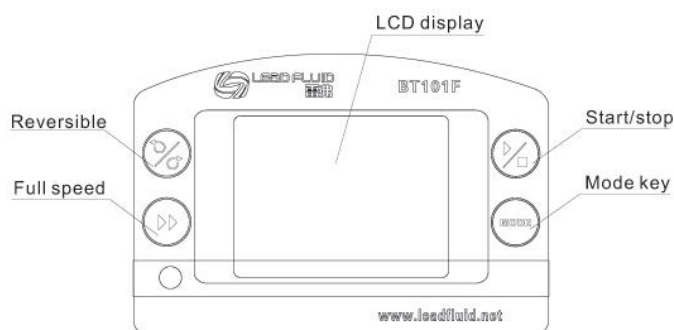


The pump adopts color LCD touch screen with intuitive and clear displaying interface, easy to operate. Mainly used for accurate measurement and distribution of fluid. If need high accuracy when dispensing, volume dispensing mode is available. If need high producing efficiency, time dispensing mode is 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	AC220V ± 10% 50/60Hz(standard); AC110V ± 10% 50Hz/60Hz(optional).		
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 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≤2.4	0.00016~26
	DG (10rollers)	1、2、4	Wall0.8~1 , ID≤2.4	0.00011~20
	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(rollers)



DG-2(rollers)



DG-4(rollers)



DT10-28



YZ15(25)

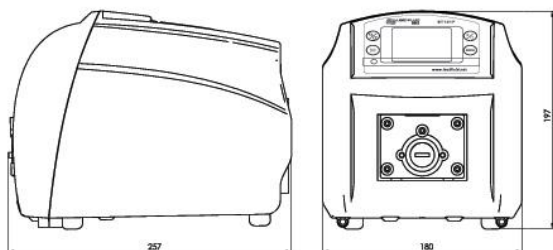


YT15(25)

BT101F/BT301F/BT601F
Drive with different pump heads combination

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





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.

- Flw range(mL/min): 0.00011~1700 mL/min
- Speed range(rpm): 0.1~150 rpm/min
- Speed resolution(rpm): 0.1rpm
- Speed accuracy: <0.5%
- Power supply: AC 220V±10% 50Hz/60Hz (standard)
AC 110V±10%, 50Hz/60Hz (optional)
- Power consumption: <60W
- External control: Input level 5V, 12V (standard),
24V (optional). xternal 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;

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≤2.4	0.00016~26
	DG (10rollers)	8, 12, 16, 24	Wall0.8~1, ID≤2.4	0.00011~20
	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



KZ25-L



YZ-15 (25)



DMD25



DG-12



4×YZ15 (25)



KZ-25



DG-24



2×YT15 (25)

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

CE

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



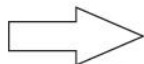
Function and Feature

- Stainless steel housing.
- Rotary encoder controls running speed.
- Applicable pump head: YZ35, 2xYZ35.
- 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 Industrial Speed-Variable Peristaltic Pump Introduction

The pump is suitable for transferring large amount of fluid in industry. Flow range: 0.4-13 L/min, speed range: 30-600 rpm. 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 diagram



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
	2×YZ35	2	73# 82#	0.4~13

The parameters

- Flow range: 0.4~13 L/min.
- Flow accuracy: <3%.
- Speed range: 30~600 rpm.
- Speed resolution: 1rpm.
- Power supply: AC220V ± 10% 50/60Hz(standard).
- 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

Patented product

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.

Function and Feature

- Flow range: 0.01-13(L/min)
- Speed range: 0.1-600rpm.
- 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.

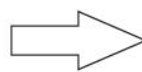


The parameters

- Flow range: 0.01~13 L/min.
- Speed accuracy: < 0.5%.
- Speed range: 0.1 ~ 600 rpm.
- Speed resolution: 0.1rpm.
- Power supply: AC220V \pm 10% 50/60Hz(standard).
- 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	< \pm 1
200mL	YZ35	82#	>500	<1.13	< \pm 1
300mL	YZ35	82#	>500	<1.7	< \pm 1
500mL	YZ35X2	82#	>500	<1.41	< \pm 1



Two channels diagram



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.

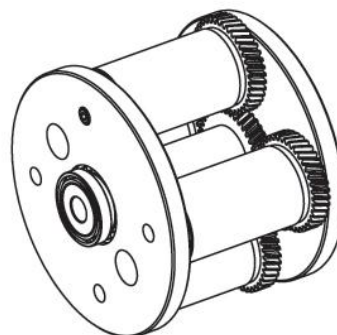
Function and Feature:

- 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:

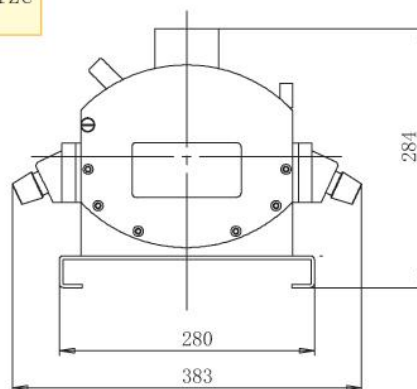
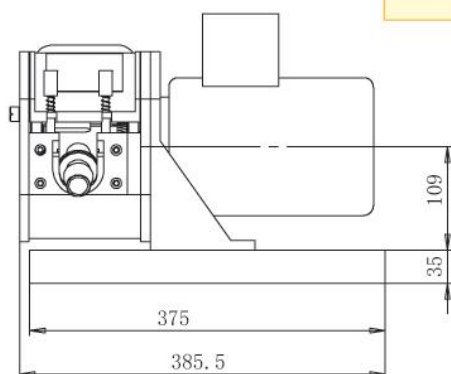
1. Flow rates: Maximum 35L/min, can reach 2m³/hour
2. Suitable tubing: 88# 92# 86# 90#
3. Shall material: Aluminium alloy
4. Roller: 304 stainless steel
5. Speed range: 0-350rpm
6. Gap adjustment: Adjustable
7. Operating condition temperature: 0 ~ 60℃
8. Chemical compatibility: Resist acid-base, organic solvent.
9. Power supply: AC 220V ±20%/400W
10. IP standard: IP54

IP54



Planetary gear design effectively prolong the life of the tube

Appearance size



DS100/DS300/DS600 Four Channels Dispensing System

Four channels dispensing system is suitable for various fluid. volume range: 0.5-500 mL. four filling channels can work at the same time. Each channel will stop working when lack of the bottle. Color LCD touch screen with intuitive and clear displaying interface, easy to operate.

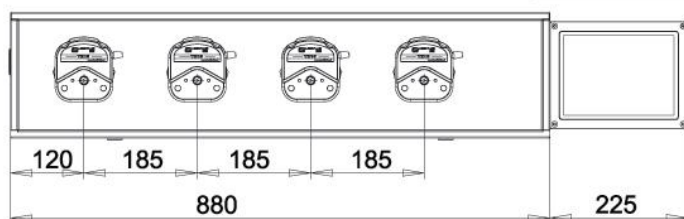


Function and Feature:

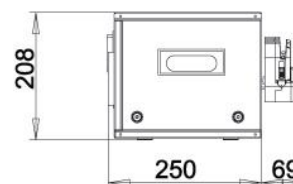
- Stainless steel housing, easy to clean, excellent resistance to the corrosion of the acid, alkali, sodium and the organic solvents.
- Color LCD touch screen with intuitive and clear displaying interface, easy to operate.
- Unique intelligent calibration system, greatly reducing the workload of users 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.
- Four each channel will stop working when lack of the bottle.

The parameters:

Technical parameters	DS100	DS300	DS600
Flow range (ml/min)	0.5-100	0.5-300	0.5-500
Speed range (rpm)	0.1-150	0.1-350	0.1-600
Speed resolution (rpm)	0.1rpm		
Speed dispensing volume	< 0.5%		
Power supply	AC220V ± 10% 50/60Hz(standard) AC110V ± 10% 50Hz/60Hz(optional)		
Power consumption	< 160W	< 200W	< 240W
External control	External bottle-lack signal and start signal		
Communication interface	RS485 communication interface, MODBUS protocol is available		
Operating condition	Temperature 0~40°C; Relative humidity <80%		
IP grade	IP31		
Dimensions (L×W×H)	940mm×230mm×247mm		
Weight	21 kg	23 kg	25 kg



Appearance size



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

Drive type	Pump head	Tubing(mm)	Single channel dispensing volume (ml/min)
DS100	YZ15	13# 14# 16# 19# 25# 17# 18#	0.5-100mL
	YZ25	15# 24#	0.5-70mL
DS300	YZ15	13# 14# 16# 19# 25# 17# 18#	0.5-300mL
	YZ25	15# 24#	0.5-200mL
DS600	YZ15	13# 14# 16# 19# 25# 17# 18#	0.5-500mL
	YZ25	15# 24#	0.5-370mL

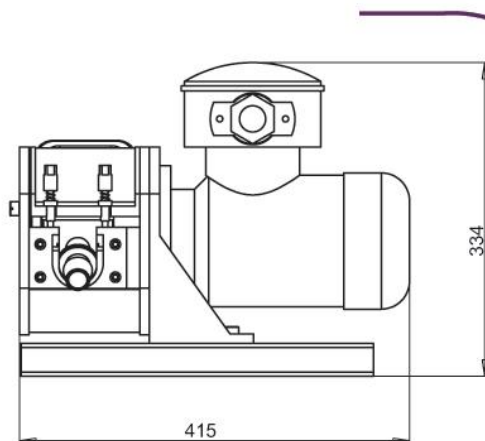
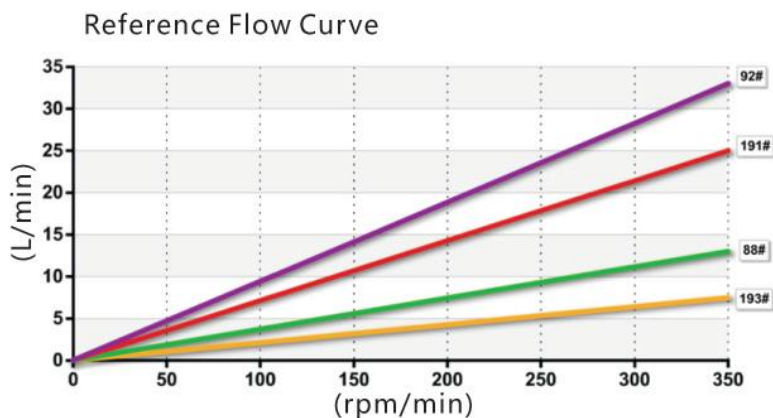


The AC Explosion-proof Electric Machine Peristaltic Pump

FP300S-A3

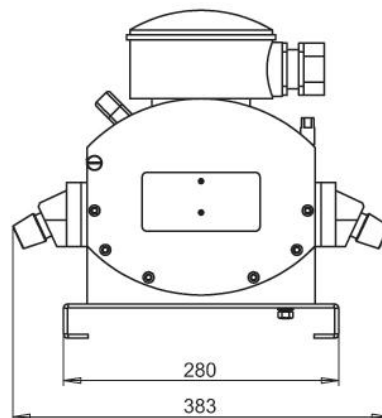
- AC slow explosion-proof motor driver, separation design, driver and frequency converter.
- Frequency converter infinitely adjustable-speed, the speed resolution is 0.1HZ.
- Stable operation.
- Can be installed a variety of pump head.
- High torque design, Stable operation.
- Flow range : Maximum 35L/min
- Table structure, operation and convenient to use
- High IP65 protection grade, suitable to complex working environment.
- Suitable for high precision of the liquid transmission
- Must be used with frequency converter

Appearance size



Technical parameters

- Speed range: 30~350rpm
- Adjust speed: Frequency converter infinitely adjustable-speed (standard converter and motor no connecting cable).
- Control function: Frequency converter control, has the start/stop, positive and negative, adjust speed, communication etc functions.
- Pump head: PL48
- Flow range: Maximum 35L/min
- Tubing: 88#, 92#, 191#, 193#
- Power supply: AC380V±10%
- Power consumption: 0.37kw
- Operating condition: Temperature 0~40°C. Relative humidity <80%
- Anti-explosion Grade: DIIBT4
- IP grade: IP55
- Dimensions (LxWxH) : 416mm×280mm×334mm
- Weight: 49 kg



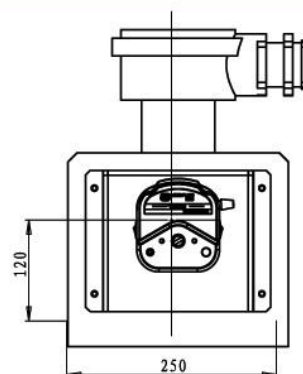
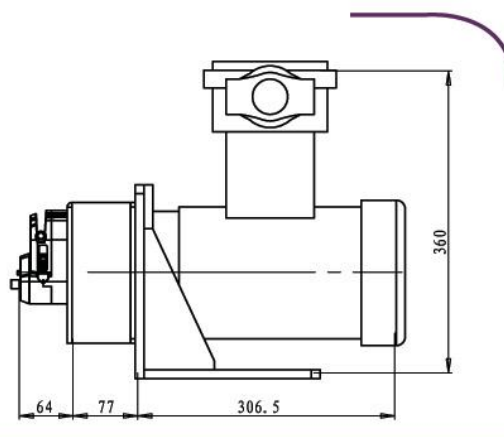


Technical reminder

Application please
consult Lead Fluid
Technology department

Technical parameters

- Flow range: 6L/min
- Speed range: 100~600rpm
- Adjust speed: Frequency converter infinitely adjustable-speed (standard converter and motor no connecting cable).
- Speed resolution: 0.1Hz (1.8rpm)
- Control function: Frequency converter control, has the start/stop, positive and negative, adjust speed, communication etc. functions.
- Power supply: Three phase 380V 50Hz/60Hz(AC220V optional).
- Power consumption: 0.37kw
- Operating condition: Temperature 0~40°C. Relative humidity<80%
- Anti-explosion Grade: DIIIBT4
- IP grade: IP55
- Dimensions (LxWxH) : 324*250*291
- Weight: 26kg



Appearance size

Applicable Pump Head and tubing

Drive type	Pump head	Channel number	Tubing(mm)	Flow rate (ml/min)
FG600S-A	YZ15	1	13# , 14# , 19# , 16# , 25# , 17# , 18#	6~1700ml/min
	YZ15*2	2	13# , 14# , 19# , 16# , 25# , 17# , 18#	6~1700ml/min
	YZ25	1	15# , 24#	170~1700ml/min
	YZ25*2	2	15# , 24#	170~1700ml/min
	KZ25	1	15# , 24# , 35# , 36#	250~6000ml/min



Technical Parameters:

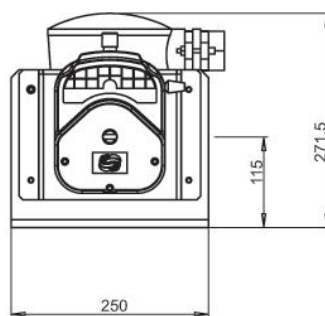
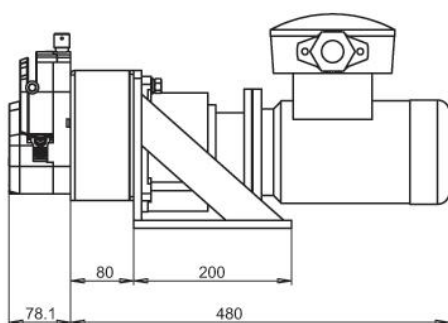
The main function

Pump Head : YZ35;

Control function : Frequency converter infinitely adjustable-speed (standard converter and motor no connecting cable);

Display function : Frequency converter according to operating frequency.

Appearance size



The AC Explosion-proof Electric Machine Peristaltic Pump

FG601S-A3

- AC slow explosion-proof motor driver, separation design, driver and frequency converter.
- Frequency converter control, has the start/stop, positive and negative, adjust speed, communication etc functions.
- Frequency converter infinitely adjustable-speed, the speed resolution is 0.1HZ.
- Stable operation.
- Can be installed a variety of pump head.
- High IP55 protection grade, suitable to complex working environment.
- 380 V can work without the frequency converter, speed is 570 RPM.

Main performance:

Anti-explosion Grade: EXd IIB4 (motor) .

Flow range: 800~12000ml/min.

Speed range: 5-50Hz (60~570rpm).

Speed resolution: 0.1Hz(1.14rpm).

Adjust Method: Keys operation.

Display function: LED display.

Power supply: Three phase 380V 50Hz/60Hz(AC220V optional).

Motor parameter: Three phase 380V/0.37KW 2800rpm.

Power consumption: <400W;

Operating condition: Temperature 0°C~40°C , relative humidity<80%;

Casing Dimensions: 560×250×271.5 mm;

Drive weight: 36kg.

Applicable Pump Head and tubing

Drive type	Pump head	Channel number	Tubing(mm)	Flow rate (ml/min)
FG601S-A	KZ25*2	2	15#, 24#, 35#, 36# (Import tubes)	250~6000ml/min
	YZ35	1	73#, 82# (all kinds material tubes)	120~12000ml/min
	YZ35	2	73#, 82# Above 100rpm for silicone tube	

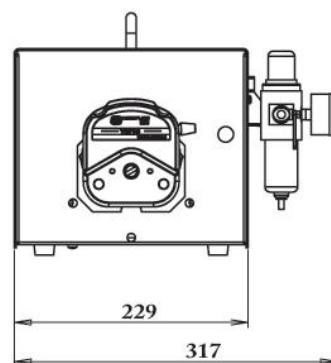
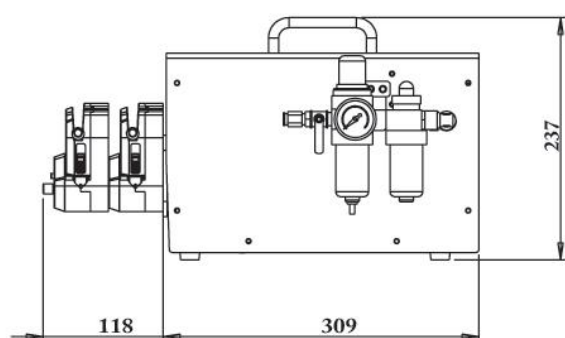
Pneumatic type explosion-proof motor peristaltic pump

FG601S-Q/FG600S-Q

- Special explosion-proof design pump head, The pneumatic motor drive, safe and reliable.
- With a start-stop control.
- High torque design, can be installed a variety of pump head.
- The table structure, convenient operation.
- Stepless speed regulation, by adjusting the air pressure or flow valve control.
- High IP65 protection grade, suitable for complex working environment.
- Suitable for liquid transport without accuracy requirement

Technical Parameters:

- Flow rate: Max 12 L/min.
- Speed range: 140~600rpm(On load, speed fluctuation than poor stability of motor drive).
- Adjust speed: Stepless speed regulation, by adjusting the air pressure or flow valve control.
- Control function: Start/stop function (standard), reversing function (optional).
- Gas source pressure: 0.1~0.7MPa.
- Gas consumption: $\geq 0.3\text{m}^3/\text{min}$.
- Operating condition: Temperature $-10^\circ\text{C} \sim 60^\circ\text{C}$, relative humidity $< 80\%$.
- IP Grade: IP65.
- Casing Dimensions: (LxWxH) 309x316x237.
- Weight: 11 kg.



Appearance size

Applicable Pump Head and tubing

Drive type	Pump head	Channel number	Tubing(mm)	Flow rate (ml/min)
FG600S-Q	YZ15	1	13#, 14#, 19#, 16#, 25#, 17#	9~1700ml/min
	YZ15*2	2	13#, 14#, 19#, 16#, 25#, 17#	9~1700ml/min
	YZ25	1	15#, 24#	250~1700ml/min
	YZ25*2	2	15#, 24#	250~1700ml/min
	KZ25	1	15#, 24#, 35#, 36#	350~6000ml/min
FG601S-Q	YZ35	1	73#, 82#	2000~12000ml/min



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.

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

YZ15/25 Series of pump head pictures



Tubing schematic diagram



White YZ15/25

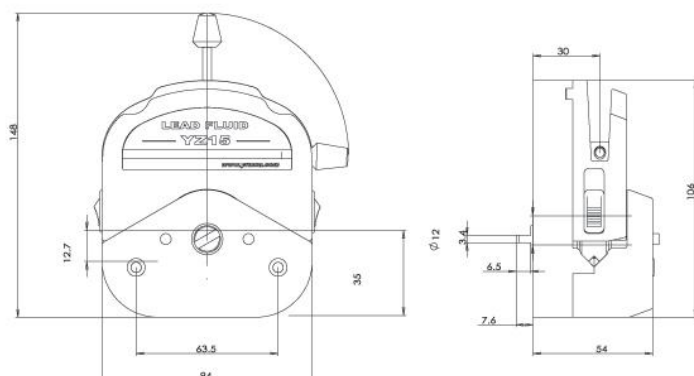


Cascade multi-pump head

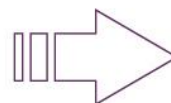


Black YZ15/25

Appearance size



Materials Introduction for YZ Series Pump Head See right



YZ, 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.

Specifications

- Flow range: 0.006~2900mL/min
- Applicable tubes: 13#, 14#, 19#, 16#, 25#, 17#, 18#, 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



Materials Introduction for YZ Series Pump Head

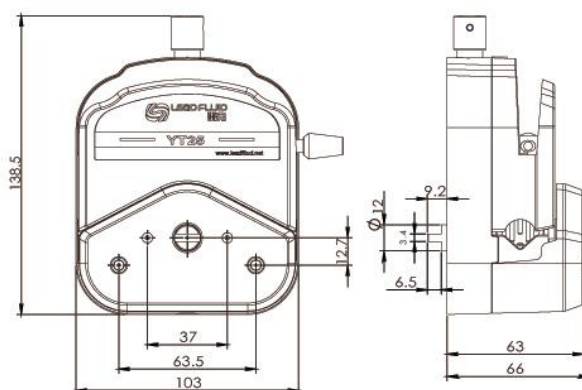
These series of pump head have PPS (polyphenylene sulfite) plastic shell, perfect comprehensive performance, its outstanding characteristic is high temperature resistance, corrosion resistance and excellent mechanical properties.

1. Excellent heat-resisting performance: melting point is more than 280°C, thermal deformation temperature is more than 260°C, can work temporarily on 260°C and work continuously under 200°C.

2. The super resistant properties for corrosion and organic solvent: One of the characteristics of PPS is good corrosion resistance, chemical stability is near to PTFE, It is stable for acid, ester, ketone, aldehyde, phenol, rouge hydrocarbon, aromatic, hydrocarbons and chlorinated hydrocarbons etc, so far, any solvent that dissolves PPS under 200°C has not been found. Meanwhile, this material has extreme resistant performance for inorganic acid, alkali and salt.

3. Strong rigidity, high surface hardness, commonly known as metal-plastic. It has excellent creep resistance and fatigue resistance under heavy load.

Appearance size



Yz35 Pump Head:

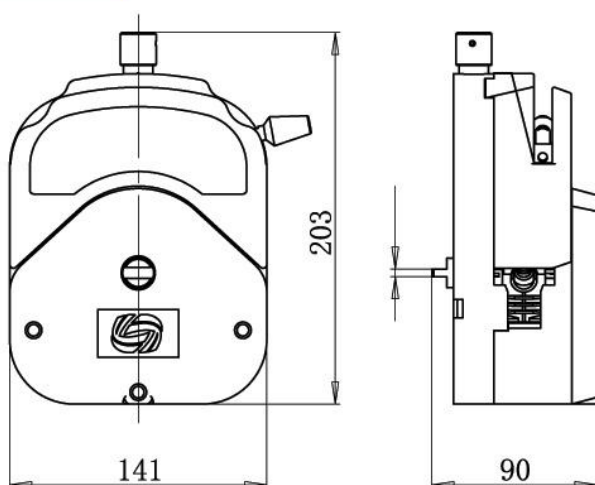
Features: Load various tubing; easy-load type, compact structure, can be mounted in tandem (up to 2). pump head with PPS material is resistance to organic solvents and other corrosion liquid, it is solid and durable.



Special note

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

Appearance size



Tubing schematic diagram

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

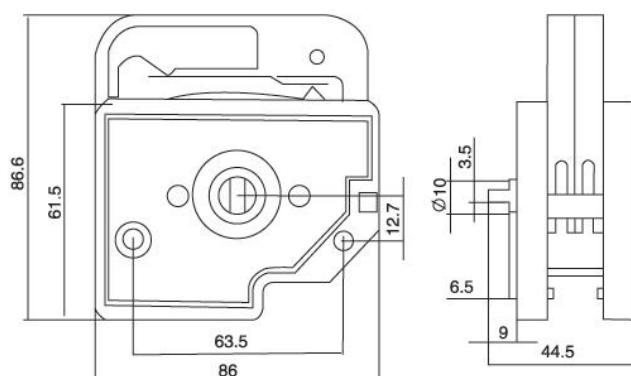
DG Series Pump Head



Special note

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

Appearance size



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



10滚轮



卡片



6滚轮



The difference of DG series pumpheads in the market nowadays

At present, the traditional method for adjusting the gap between card and roller is mainly through manual plastic ratchet, but this device causes different flow rate from every channel obviously, the main reasons: 1. Manual adjustment can not guarantee the consistency of every channel, even amplifies the difference. 2. The plastic ratchet might be loosen upon of long time working, the change of gap will effect consistence from every channel. Lead Fluid DG pump head adopts self adapting metal spring to ensure the consistency of pressure from every Channels, comparing to plastic ratchet. this device Increase the consistency of flow rate from every Channels obviously.

Lead Fluid Products



Adoptive orgnization

Other products in the market



Trigger gear

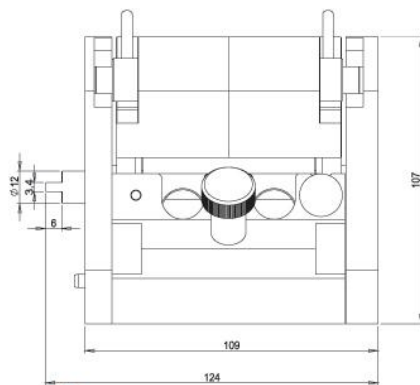
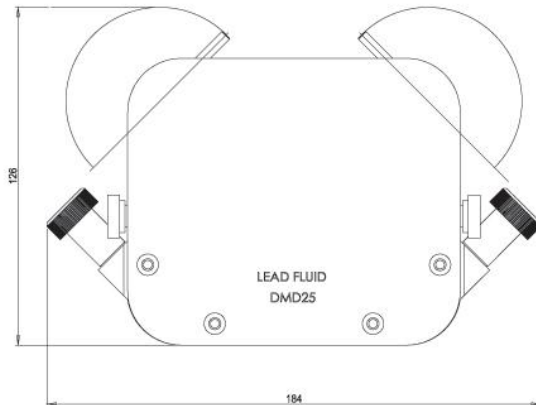


DMD25 High-Precision & Low-Pulse Pump Head

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.

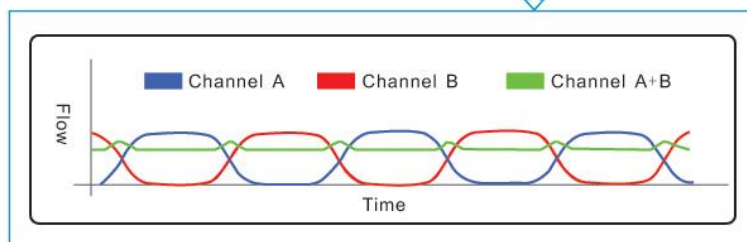
Specifications :

- Flow range: $\leq 4000\text{mL/min}$
- Speed range: $\leq 350\text{ rpm}$
- 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#



Appearance size

DMD25 working elements



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.



NEW

WMD15 reduced 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 :

low range: $\leq 1700\text{mL/min}$

peed range: $\leq 600\text{rpm}$

Applicable tubes: 13#, 14#, 19#, 16#, 17#, Optional, other tubes can be customized.

Shell material: aluminium-magnesium alloy

Roller material: stainless steel 304

Roller number: 3

Gap adjustment: fixed

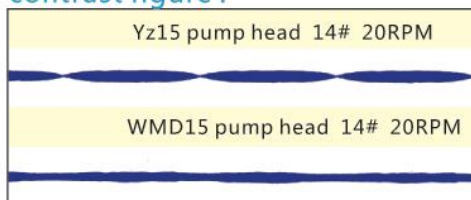
Cascade multi-pump head

Working temperature: work continuously under 100°C .

Chemical compatibility: resistant to acid, alkali and organic solvents

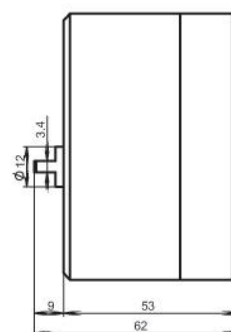
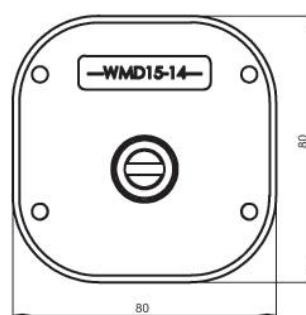
patented products

Micro pulse pump head coating contrast figure .



Special note

Pulse video please contact with Lead Fluid.



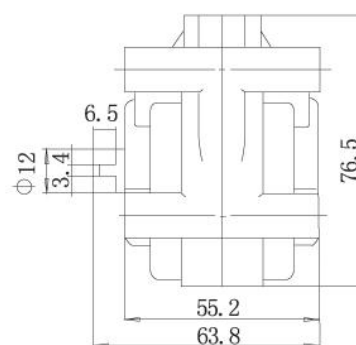
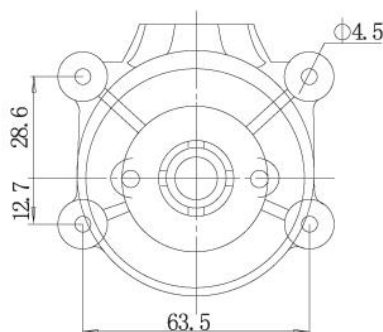
Appearance size



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.

Appearance size



Specifications:

- low range: $\leq 1200\text{mL/min}$
- peed range: $\leq 600\text{rpm}$
- Shell material: PC
- Roller material: stainless steel 304
- Roller number: 3
- Gap adjustment: fixed

KZ25 Pump Head

Kz25 pump head is suitable for the big flow transmission, up to 6800 mL/min, can load various tubing. Replacing tubing only takes several seconds, easy to operate. can be mounted in tandem (up to 2). The rollers adopt 304 stainless steel, the shell adopts transparent PC 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: ≤ 6800 mL/min
- Speed range: ≤ 600 rpm
- Shell material: PC
- Press block material: PPS
- Roller material: 304 stainless steel
- Roller number: 3
- Tubing-fixing adjustment: manual
- Gap adjustment: fixed
- Applicable tubes: 15 #, 24 #, 35#, 36#



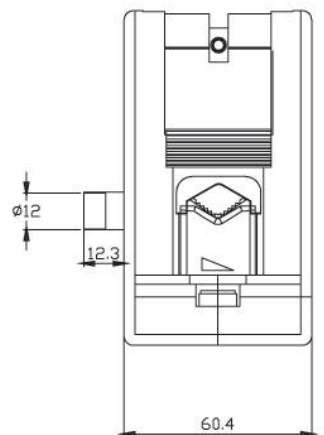
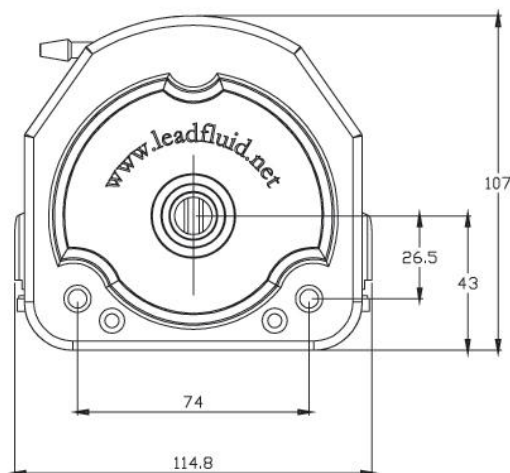
PC



PPS



AL alloy



Appearance size



flow reference table please consult Lead Fluid salesman.

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

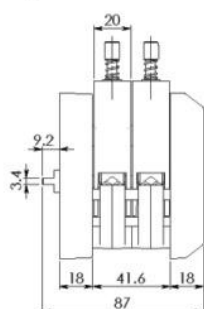
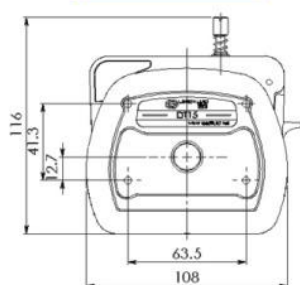


DT10-48



DT15-44

Appearance size

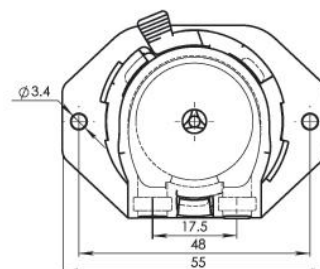
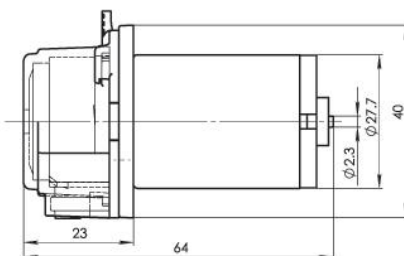


Model	Channel number	Number Of rollers	Roller materials	Housing materials	Speed range (rpm)	Tubing	Maximum flow (ml/min)	Weight (kg)
DT15-14	1	4	304 Stainless steel	PPS	600	19# , 16# 25# , 17#	1600	0.62
DT15-24	2							1
DT15-44	4							1.44
DT10-18	1	8			100	ID<3.17mm Wall0.8-1mm 13# , 14#	70	0.72
DT10-28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

MC10 Flow 0.3 ~ 80ml/min



A



Function and Feature:

Unique double rotate cassette design makes the lid easy to unload. Star configuration friction drive gives the longer life of tube. The pump head with high strength, high toughness and excellent chemical corrosion resistance, and can be whole disinfection in high temperature. This products cost-effective and also be used in bulk.

FZ10 Flow 0.57 ~ 32ml/min

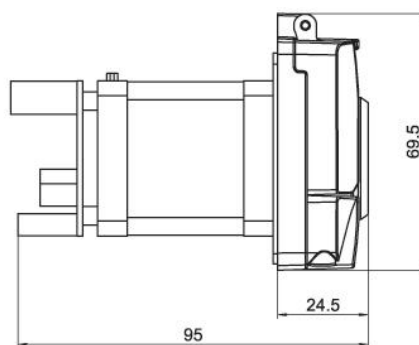
Function and Feature:

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

B



patented products

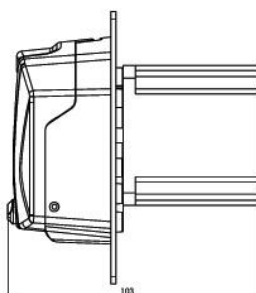
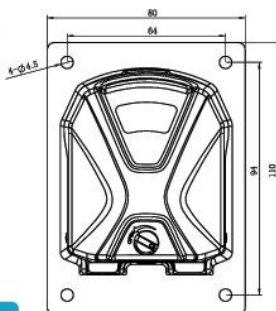


Kt15 Flow 0.06 ~ 172ml/min



patented products

C



Function and Feature:

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

Dw10 Flow 45ml/min(1, 3, 6 Channel) 26ml/min(2, 4 Channel)

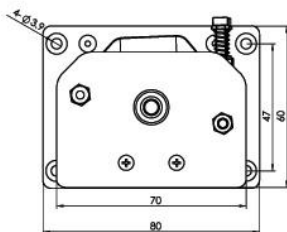
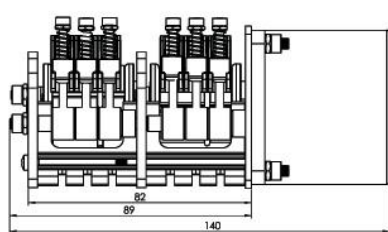
Dw15 Flow 120ml



Function and Feature:

adopts Spring-Loading structure to fix the tubing. It can provide the long life tubing and high precision flow rate. Though adjust press tubing device, we can get suitable pressure. The tubing easy and fast loading, variable tubing is suitable for this pump head. It has good intensity, high toughness, exterior structure compact and beautiful, and the material is healthy and non-toxic, have excellent resistance to chemical corrosion, suitable for small flow applications, can be in equipment, instruments, laboratory equipment to use, especially suitable for COD online detecting instrument.

DW10/15 Series Pump head

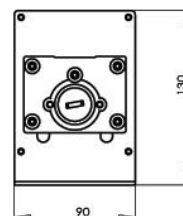
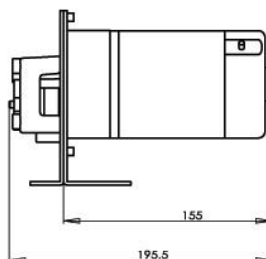


Flow 1.8~3000ml/min AC/DC



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.

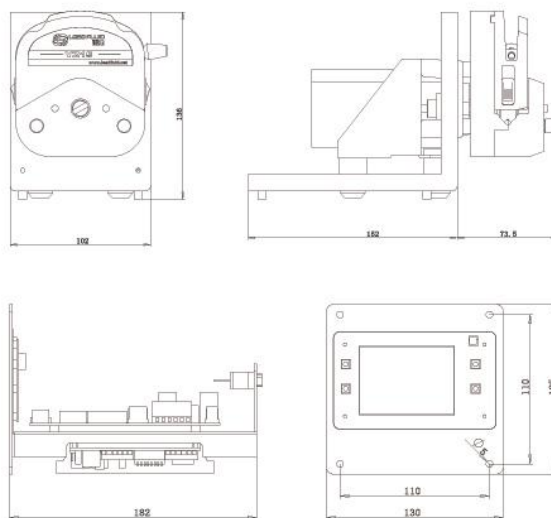


Applicable Pump head flow parameters

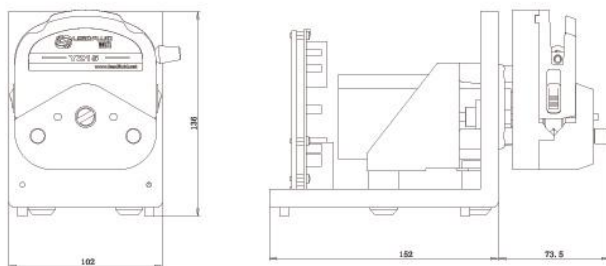
Pump head	DG	YZ15/25	BZ15/25	YT25	DT15
10rpm(min)	0.56ml/min	0.6ml/min	0.6ml/min	16 ml/min	4.7 ml/min
100rpm(max)	26 ml/min				
500rpm(max)		1400 ml/min	1000 ml/min	2500 ml/min	1300 ml/min

Flow : 0.6~3000ml/min fission installation

- ◆ Flow range: 0.006~2300ml/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: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: 0.25~6000ml/min

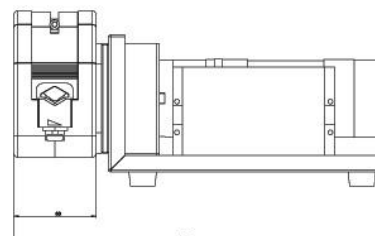
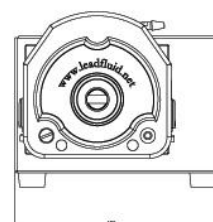
- ◆ Flow range: 2.5~6800ml/min.
- ◆ Base plate installation, brushless DC motor.
- ◆ Operates smoothly, no vibration.
- ◆ Various external signal control .
- ◆ Speed range :50-600rpm.
- ◆ Suitable for transferring viscous liquid.



H

Applicable head

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

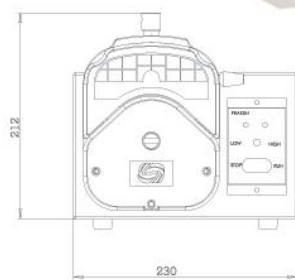
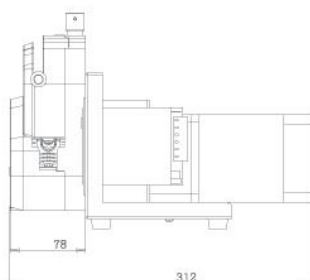


I

Flow: 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.

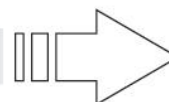
Tubing Specifications

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	2.06	2.4	2.79	3.17	1.0	2.0	3.0
Tubing pressure (Mpa)	Continuous										
	Interval										

Tubing NO	13#	14#	19#	16#	25#	17#	18#	15#	24#	35#	36#
Tubing Section (1:1)											
Wall thickness (mm)	1.6							2.5			
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 pressure (Mpa)	Continuous										
	Interval										

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:

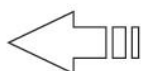
Chemical compatibilities of tubing are some good chemical properties the tubing appears when transferring fluid. The normal tubing only general touch with chemical material, but peristaltic pump's tubing touch with chemical material under working conditions, so the chemical compatibility level is different 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 is 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 expended, 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:

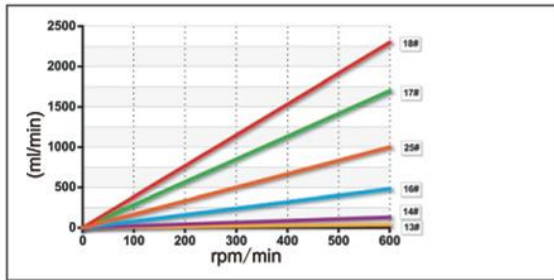
Different tubes have different abilities of roller extruding, friction resistance. Different tubing type pipe, pump head, operation speed, the life are different. Choose the long life, thick wall tubing, big flow pump, run in lower speed can be obtained more long service life.

Flow range:

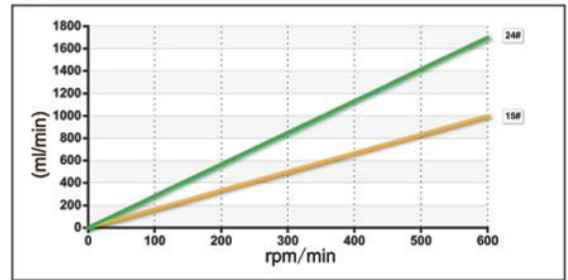
Each tubing is corresponding fixed flow range. We according to our customers needs of flow range choose corresponding tubing.

Reference Flow Curve Of Peristaltic Pump Head Suitable Tube

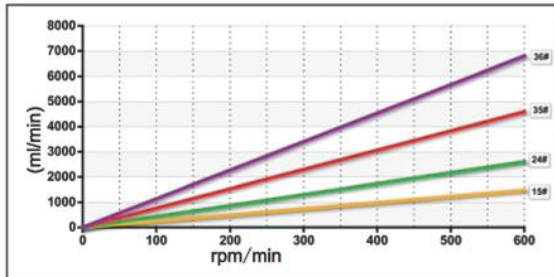
YZ15



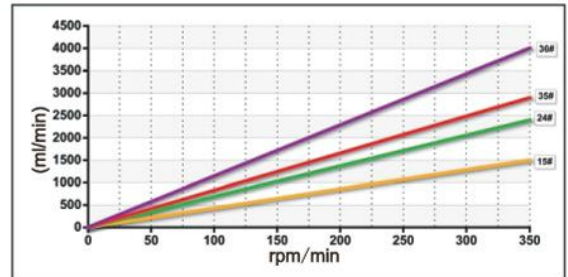
YZ25



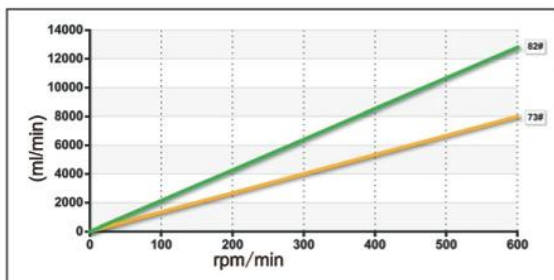
KZ25



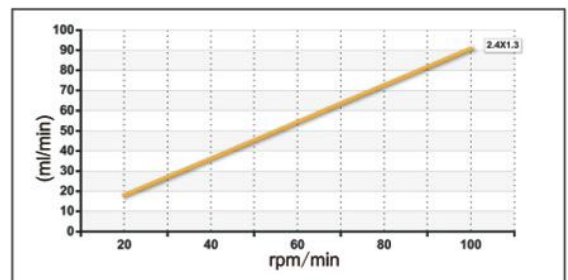
DMD25



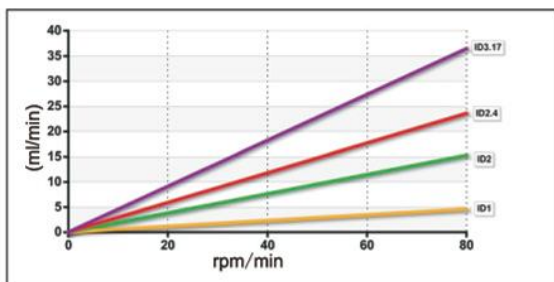
YZ35



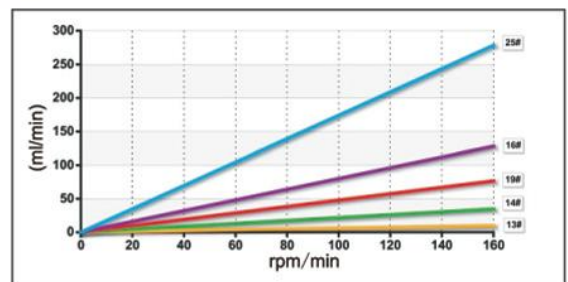
MC10



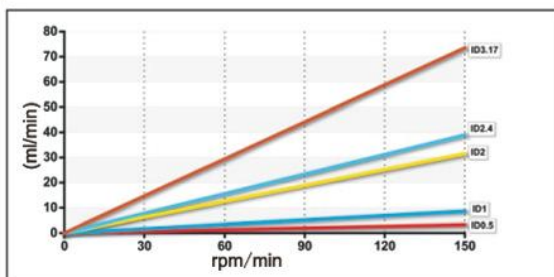
FZ10



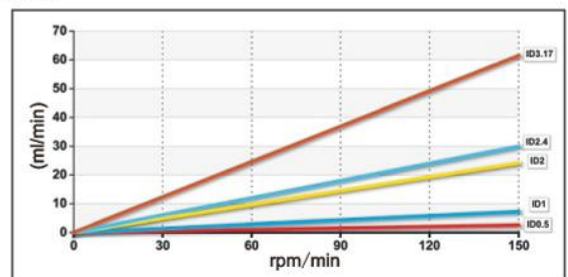
TH15

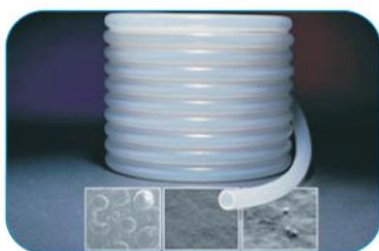


DG-6



DG-10

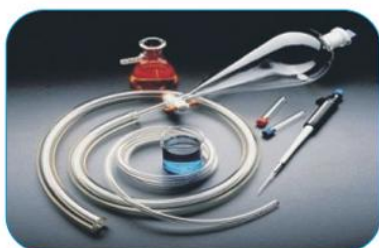




Lead Fluid Silicone Tubing

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.

Peristaltic Pump Accessories Dispensing controller



FK-10 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 index

- 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: 0.10-9999SECOND, the resolution is 0.01second.
- Dispensing times: 1-9999 times or infinite loop.
- Applicable manual or external control for start/stop.

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.



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 index 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.

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.

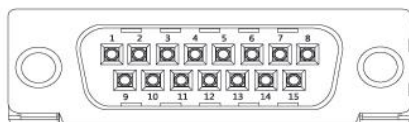
Applicable tubes:

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 reusable structure and easy to be installed.

Material: 304 stainless steel

Applicable tubes:

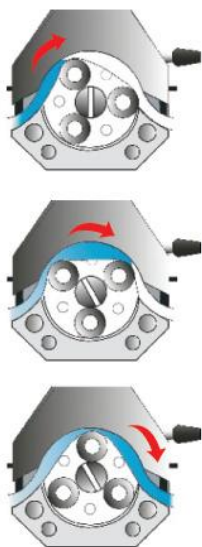
1X1, 2X1, 2.4X0.8

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

15#, 24#, 35#, 36#

DB15NO.	English Annotations	Instructions
1	ADC_W	Input positive terminal of external analogue signal
2	B	Communication interface, B terminal of RS485
3	A	Communication interface, A terminal of RS485
4	+24V_W	Input terminal of external voltage +24v
5	DAC	Output terminal of analog-voltage
6	CW_W	Input terminal of external direction signal
7	PWM	Input terminal of pulse
8	COM	External public land
9	AGND	Input negative terminal of external analogue signal
10	+12V	Output terminal of internal +12V power
11	GND	Internal power land
12	CW	Output terminal of external direction signal
13	RS_W	Input terminal of external start/stop signal
14	PWM_W	Input terminal of external pulse signal
15	RS	Output terminal of external start/stop signal

Schematic diagram



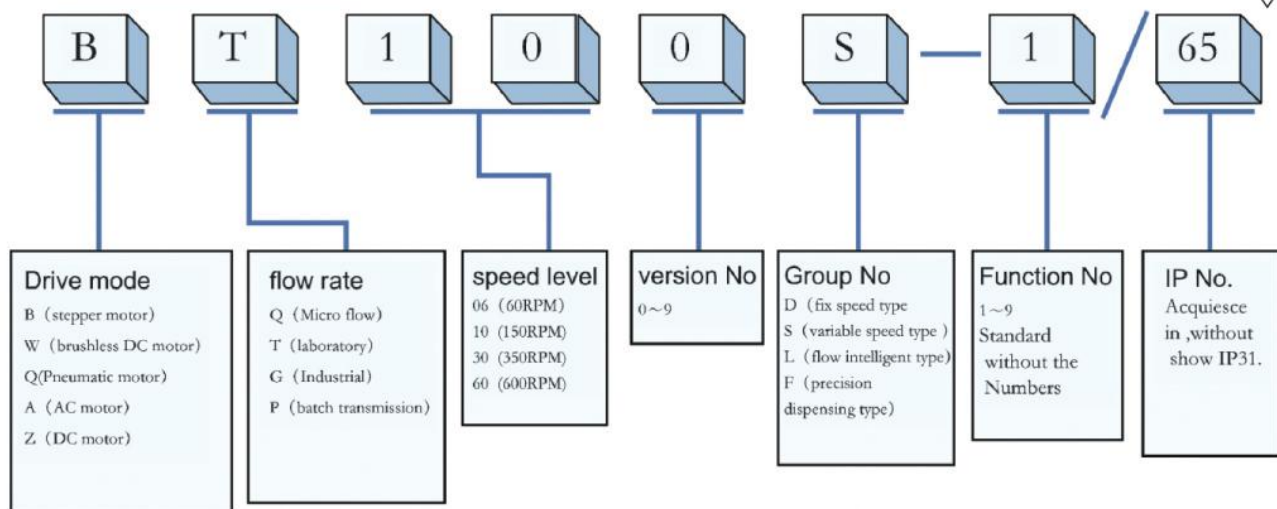
Introduction of Working Principle and Selection of Peristaltic pump

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 0.00016-575ml/min	Choose BT10**drive+YZ15/YZ25/DG pump head+suitable tubing
	Flow range 0.006-1340ml/min	Choose BT30**drive+YZ15/YZ25 pump head+suitable tubing
	Flow range 0.006-2300ml/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	BT***S drive+pump head+suitable tubing
	Timing transmission,flow rate, volume accumulating	BT***L drive+pump head+suitable tubing
	Dispensing	BT***F 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 flow1-2channels	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 flowvolume, 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 pumpYZ 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?

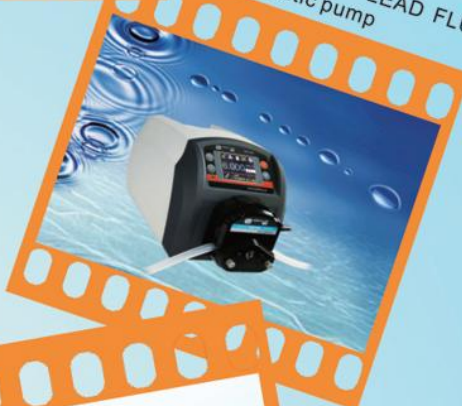
Yes,several easy-load pump heads or stand pump heads could be loaded by one drive,DG pump head can be multi-channels(up to twelve)with no overload.

Welcome to browse the website to see the video of the peristaltic pump

Propaganda for the BQ80S
LEAD FLUID peristaltic pump



Propaganda for LEAD FLUID
flow peristaltic pump



Propaganda for LEAD FLUID
syringe pump



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