

FL02/F15 For High-precision filling

Precision $\pm 0.3\%$

Suitable for **100 μ L** and above filling volume

ZHUNZE F series peristaltic pump products-using ZHUNZE invention patent technology-flow fine tuning-2017107041415

Reference table for filling applications

Example of filling quantity	Recommended drive	Using tubing	Recommended rpm	Filling time	Repeatability error
100 μ L	F15	13#	< 400rpm	0.25S	< $\pm 0.2\%$
200 μ L	F15	13#	< 400rpm	0.5S	< $\pm 0.2\%$
300 μ L	F15	13#	< 400rpm	0.75S	< $\pm 0.2\%$
500 μ L	F15	14#	< 400rpm	0.4S	< $\pm 0.3\%$
1mL	F15	14#	< 400rpm	0.7S	< $\pm 0.3\%$
2mL	F15	14#	< 400rpm	1.3S	< $\pm 0.3\%$
3mL	F15	16#	< 400rpm	0.6S	< $\pm 0.3\%$
5mL	F15	16#	< 400rpm	1S	< $\pm 0.3\%$
10mL	F25	15#	< 400rpm	1S	< $\pm 0.3\%$
20mL	F25	24#	< 400rpm	1.3S	< $\pm 0.3\%$

Note: The above recommendations are based on a time of less than 1.5 seconds. If longer time is allowed, the tubing can also be selected as a smaller size, For more data, please call our company for further inquiries.



NEW UPGRADE

The upgraded pump head optimizes the tube loading method and is faster

Pump head uses a locking function of the wrench structure support any direction of installation



Precision display

100 μ L

Unit: μ L

99.9
100.2
99.8
100
100
100.1
100
100.2
100
100.2
100
100
100.2
100
100.1
100
100.1
100
100.1
100
100.1

Precision display

200 μ L

Unit: μ L

200
200
200
199.8
200.2
200.1
199.9
200.1
200
200.1
200
199.9
200
199.9
200.1
200
200.1
200
199.7

Precision display

1000 μ L

Unit: μ L

999.9
999.8
1000
1000.1
1000.2
999.9
1000.1
1000.1
1000.1
999.8
1000
1000.1
999.6
1000
999.8
999.9
999.7
999.9
999.8

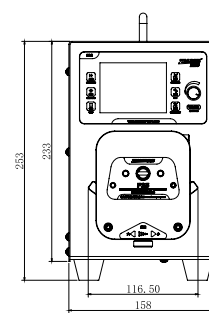
Precision display

15mL

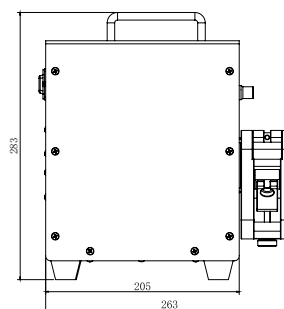
Unit: μ L

15.0146
15.001
15.0201
15.0192
15.0411
15.0349
15.0459
15.053
15.0526
15.0478

Size (mm)



Front



Side

Characteristics

1. This product is a dedicated peristaltic pump for filling, and with the F series pump head of the quasi-select company, it can realize the continuous adjustment of the filling volume, reduce the error between the channels, and compensate the flow.
2. 3.5-inch 320*240 high-brightness LCD display, all operating parameters are displayed on the same screen, the operation is simple and easy to understand.
3. Adopt "dual CPU" control, drive and control separation, fast operation speed, stable operation, high transmission accuracy, precise one-key filling function, repeat accuracy up to $\pm 0.3\%$.
4. It has the functions of automatic flow correction, sound reminder, stepless speed regulation, start-stop, reversing and other functions. It is equipped with a full-speed button and has quick filling and emptying functions.
5. It has two working modes: distribution mode and transmission mode; three distribution modes: flow distribution, time distribution and copy distribution; the suction angle can be set arbitrarily within 720° .
6. Abundant external control functions are available. For example, the DC12V output is convenient for direct connection to a variety of sensors, capacitive sensors, liquid level sensors, photoelectric sensors, etc.; the product hardware reserves a variety of circuit interfaces to meet the special customization needs of customers.
7. A stepping motor is used to control the rotation speed, which is not affected by the load change, high torque, low power consumption, and strong adaptability.
8. Excellent driving circuit performance, good heat dissipation, low working noise, stable operation, and power-down memory function. The internal circuits are all three-proof treatment, anti-interference, wide voltage design, suitable for complex power supply environment.
9. This product has got handles, easy to carry; various pump heads can be installed.
10. The pump head adopts the ZHUNZE patented technology (2017107041415), which has the micro-adjust function, which can reduce the error between the channels, and can automatically compensate the flow rate with the measurement equipment.
11. Adopting the ZHUNZE utility model patent (201720657416X), roller seal, dustproof and waterproof, and extend the life of the pump head.
12. The structure has good rigidity, high stability, high precision and strong anti-interference ability.
13. Good flow reproducibility, high consistency of the forward and reverse flow rate, uniform arc make the product more reliable.

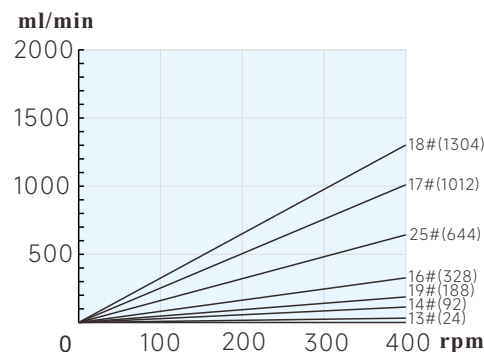
Customer case



Specifications

Drive Model		Pump head model	
FL02		F15	
Technical index		Technical index	
RPM	0.1-400rpm	Using tubing	13#, 14#, 19#, 16#, 25#, 17#, 18#
Speed resolution	0.1rpm(≤ 100 rpm); 1rpm(> 100 rpm)	Flow range	0.006-1304mL/min
Filling volume resolution	0.001-0.01mL(Different according to the tubing)	Tubing wall	1.6mm
Repeat error	$\pm 0.3\%$	Flow fine-tune	Yes
Retention error	100rpm, 1% within 68 hours(Filling special tube)	Shell material	Aluminum alloy
Display	LCD screen (3.5 inch)	Roller material	SS
Operation	Membrane keypad +Digital control knob	Roller No.	4
Working environment	Temperature, 0°C to 40°C ; Relative humidity $< 80\%$	Product No.	02161512
External speed control	0-5V (optional), 0-10V (optional), 4-20mA (standard), 0-10K (standard)	Roller seal	Yes
Type of external control	Start /stop, Direction change [TTL 5V (standard), TTL 12V (optional), TTL 24V (optional)]	Max. pressure	0.15Mpa
Port output	DC12V Power Output; DC5V TTL Output (optional)		
Communication Interface	Modbus485-RTU (Start/stop, Direction change, speed control)		
Power supply	AC220V $\pm 10\%$, 50Hz/60Hz(standard); AC110V $\pm 10\%$, 50Hz/60Hz; AC380V $\pm 10\%$, 50Hz/60Hz(optional)		

Flow reference curve



Using tubing and flow range

Tubing	Size ID*wallmm	Flow (mL/min) (0.1-400rpm)
13#	0.8*1.6	0.006-24
14#	1.6*1.6	0.023-92
19#	2.4*1.6	0.047-188
16#	3.2*1.6	0.082-328
25#	4.8*1.6	0.161-644
17#	6.4*1.6	0.253-1012
18#	7.9*1.6	0.326-1304

The roller is dustproof and waterproof, extending the life of the pump head
--Utility model patent number: 201720657416.X

After a lot of practice, the life of the pump head of the peristaltic pump mainly depends on the life of the pump head roller. The reason is that during the use of the pump head, the roller bearing will be contaminated due to factors such as tubing rupture and harsh environmental conditions, causing irreversible injury. The ZHUNZE F series peristaltic pump head roller seal can effectively prevent the roller bearing from being contaminated, greatly extending the service life of the pump head, and the roller bearings are made of corrosion-resistant stainless steel.

