# Flow Rates Peristaltic Pump







Large flow rate, high precision, intelligent control of liquid transferring.

Servo motor drive, accurate control, strong driving force.

304 stainless steel housing, the first choice for high level industrial sites.

# **Model Number**

- V6-3L/DZ25-3L
- V6-6L/DZ25-6L
- V6-12L/YZ35

|                               | Technical Specifications                |                             |   |  |  |  |
|-------------------------------|---|-----------------------------|---|--|--|--|
| Flow rate range               | V6-3L: 0.211~3600 mL/min                | Start/stop,direction signal | Passive switch signal, such as foot pedal switch    |  |  |  |
|                               | V6-6L: 0.3~6000 mL/min                  |                             | Active switch signal: 5V, 12V and 24V for option    |  |  |  |
|                               | V6-12L: 0.00069~12 L/min                | Communication interface     | Rs232, RS485 support MODBUS protocol (RTU mode)     |  |  |  |
| Speed range                   | 0.1-600 rpm                             | Output interface            | Output motor working status (Open-Collector output) |  |  |  |
| Speed resolution              | 0.01 rpm                                | Power supply                | AC 220V±10% 50Hz/60Hz (standard)                    |  |  |  |
| Flow rate resolution          | 0.01 mL                                 |                             | AC 110V±10% 50Hz/60Hz (optional)                    |  |  |  |
| Flow rate accuracy            | <±0.5%                                  | Drive dimension             | V6-3L: 223×152×200mm                                |  |  |  |
| Back suction angle            | 0-360°                                  |                             | V6-6L: 283×192×218mm                                |  |  |  |
| Outlet pressure               | 0.3 Mpa                                 |                             | V6-12L: 302×222×275mm                               |  |  |  |
| Motor type                    | Servo motor                             | Drive weight                | V6-3L: 5.02kg; V6-6L: 7.85kg; V6-12L: 13.14kg       |  |  |  |
| Display                       | Industrial grade 4.3" color LCD display | Power consumption           | V6-3L: <80W; V6-6L: <180W; V6-12L: <300W            |  |  |  |
| Control method                | Touch screen and Mechanical keypad      | Environment temperature     | 0-40℃   |  |  |  |
| Keypad lifetime               | 300,000 times                           | Relative humidity           | < 80%   |  |  |  |
| External speed control signal | 0-5V,0-10V,4-20mA                       | IP rate                     | IP31  |  |  |  |

| Product Composition and Flow Rate Range |             |           |                    |                  |                   |  |
|---|-------------|-----------|--------------------|------------------|-------------------|--|
| Drive                                   | Motor Type  | Pump Head | Tubing Size        | Speed Range(rpm) | Flow Rate(mL/min) |  |
| V6-3L                                   | Servo Motor | DZ25-3L   | 15", 24", 35", 36" | 0.1-600          | 0.211~3600        |  |
| V6-6L                                   |             | DZ25-6L   | 15", 24", 35", 36" |                  | 0.3~6000          |  |
| V6-12                                   |             | YZ35      | 26", 73", 82"      |                  | 0.69~12000        |  |





## V Series peristaltic pump has various external control interface, can meet different equipment supporting requirements.

#### External control interface definition

- 1. Analog signal input port: Choose the external control speed signal from the external control setting interface. Turn on the external control speed function, control the motor speed range through the analog signal.
- 2. Internal isolation 5VDC output.
- 3. External control start/stop, direction signal input port: active signal input.
- 4. R/S1 external control start/stop signal input port: passive signal input.
- 5. Motor running status output port: output current running status
- 6. RS232 communication interface: choose RS232 in communication setting interface, this port is effective.
- 7. RS485 communication interface: choose RS485 in communication setting interface, this port is effective.

# 1 3 7 of the motor.

### V Series peristaltic pump external control setting interface.

#### Choose external control start/stop, direction signal

- 1. Can respectively set external control start/stop or reversing switch whether effective or not.
- 2. Can choose control mode according to requirement: pulse mode or level mode.
- 3. Can set the foot switch whether effective or not.
- 4. Can choose switch value signal 's high level values according to customers' main control equipment: 5V(default),12V,24V.

#### External Control Way External control start/stop OFF ON Pulse signal ▼ Foot Pedal External control direction OFF ON OK

# Programmable external control speed setting

- 1. Can choose analog signal source according to requirements: 0-5V, 0-10V,
- 2. When the signal source is chosen, can choose maximum speed and minimum speed which corresponding to the signal source's maximum value and minimum value according to actual demand, to reach userdefined rotate speed range purpose.
- 3. Working speed limit is at the situation that the linear relation of analog quantity signal and rotating speed keeps invariant, set peristaltic pump's maximum working rotate speed. This setting can avoid production accident caused by sudden change of transfer fluid amount with the sudden change of external analog signal.

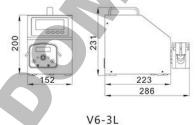
#### Analog control speed signal Whether to start 0-5V |▼ OFF ON Working speed limit 0V relative speed 0.00 rpm 10.00 rpm 5V relative speed 600.00 rpm OK

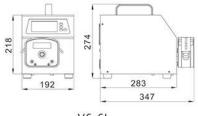
# Communication setting

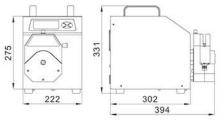
- 1. Support RS232 and RS485 interface, can be chosen in software interface.
- 2. Support various Baud rate: 2400bps, 4800bps, 9600bps, 19200bps.
- 3. Can choose standard modbus communication protocol or Shenchen communication protocol to control, modbus communication protocol is suitable to match with industrial site HMI, PLC or other upper computer which support standard modbus communication protocol; Shenchen communication protocol is suitable to match with single chip micro computer or upper computer on computer programme.



# Installation Sizes Drawing(Unit: mm)







V6-12L



V6-6L

