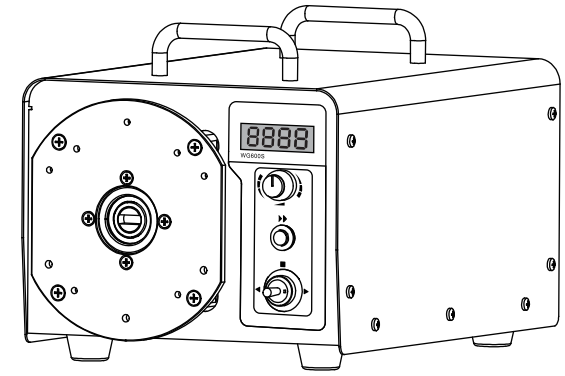
WG600S Speed Variable Peristaltic Pump Operation Manual



Version number:V1.0

Safety Precautions

Important information:

Be sure to read the manual carefully before operation!

	This icon warns: Keep fingers away from moving parts.
	This icon warns: Be careful.
	This icon warns: Be careful, the surface is hot.
	This icon warns: Be careful, electric shock hazard.
	This icon warns: To recycle this product.
	This icon warns: Personal protective equipment (PPE) must be worn.

Danger:

	Please use the same power supply as that on the nameplate of the machine, otherwise the equipment will be damaged!
	Do not disassemble the shell or modify the interior of the equipment by yourself, otherwise it may cause malfunctions or even electric shock accidents!
	When installing and disassembling the pump tube, please turn off the power first and do not approach the rotating roller to prevent fingers and clothing from getting entangled in the mechanical mechanism!
	When installing and disassembling external control devices, please turn off the power first to prevent electric shock accidents or damage to the equipment !

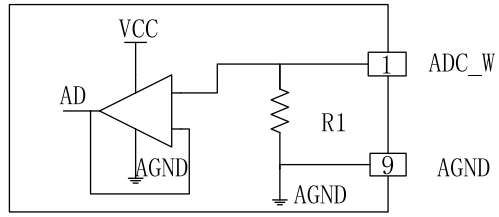
Disclaimer

We believe that the information contained in this document is correct, but if it contains any errors, Baoding Enterprise Technology Co., Ltd. is not responsible and reserves the right to modify the relevant technical specifications without prior notice.

	Note: This product is not medically certified. When used as a component in a medical device, the medical device itself must have medical certification.

Data version： V1.2

While the product is improving, the manual information may be changed without notice.

Input Analog Specifications		
Project	Parameter	
Interface Principle		
Input Impedance (<100HZ)	0-5V	R1=4KΩ
	0 -10V	R1=4KΩ
	4-20mA	R1=248Ω
Allowable Error	0-5V、0-10V、4-20mA	±1%
Resolution	0-5V	5mV
	0-10V	10mV
	4-20mA	16uA

Internal Output Power Specifications	
Project	Parameter
The Output Voltage	DC12V ± 1V
Allowable Output Current	< 130mA

External input Power Specification	
Project	Parameter
Allowable Input Voltage	DC5-25V
Allowable Input Current	> 350mA

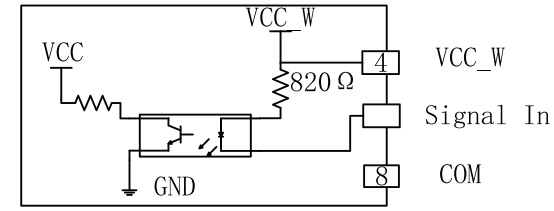
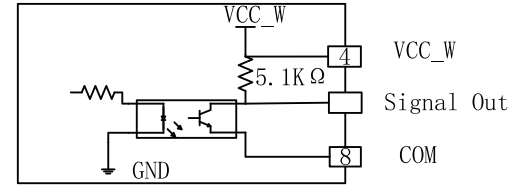
	Please connect the protective area of the machine to the ground, otherwise there is a risk of electric shock, electromagnetic interference, or induced static electricity!
	If it is used to transport dangerous liquids, special operating procedures must be developed for this liquid, and personnel must also be prevented from being injured during use.
	This product is not suitable for explosion-proof environment, and it should not be used in explosive environment.

Warning:

	Before using, please confirm that the transmitted liquid will not react chemically with the tube or pump head, otherwise it will damage the tube or pump head. If unsure, please consult our engineers.
	The tube is a vulnerable part, please check it regularly.Our company is not responsible for the loss caused by tube damage, especially the leakage of toxic, harmful and valuable liquids!
	Due to the fact that the actual working environment conditions (including temperature, humidity, power supply voltage, etc.) exceed our technical specifications and the machine is damaged, our company is responsible for the paid warranty, but we will not be responsible for any other damages caused by it!
	The primary protection for the operator against injury from the moving parts of the pump is provided by the pump head safety device. Please note that safety devices vary from product to product, depending on the model of pump head. See pump head section in manual.
	If the pump was running before the power failure, the pump will automatically start when the power is turned back on.

Contents

External Control Input and Output Performance

<table>
<tr><th colspan="3">Input Switch Value or OC Gate Specification</th></tr>
<tr><td>Project</td><td colspan="2">Parameter</td></tr>
<tr><td>Input Interface Principle</td><td colspan="2"> 
</td></tr>
<tr><td>Single Signal Input ON Current</td><td colspan="2">5.5mA < Ion < 15mA</td></tr>
<tr><td>Single Signal Input OFF current</td><td colspan="2">Ioff < 1.5mA</td></tr>
<tr><td>Signal Input Method</td><td colspan="2">switch (closed, open) or NPN transistor OC gate</td></tr>
<tr><td rowspan="3">External Control Input Voltage</td><td>5V</td><td rowspan="3">Input loop requires no series resistors</td></tr>
<tr><td>12V</td></tr>
<tr><td>24V</td></tr>
<tr><td>Isolation Method</td><td colspan="2">Optoelectronic isolation</td></tr>
<tr><th colspan="3">IOutput Specification</th></tr>
<tr><td>Project</td><td colspan="2">Parameter</td></tr>
<tr><td>Principle of Output Interface</td><td colspan="2"> 
</td></tr>
<tr><td>Output Method</td><td colspan="2">NPN transistor OC gate with internal pull-up</td></tr>
<tr><td>Isolation Method</td><td colspan="2">Optoelectronic isolation</td></tr>
</table>

◆Flow Rate Chart of the Pump

Driver Model	Suitable Pump Head	Channel Number	Suitable Tube (mm)	Single-Channel Flow Rate(L/min)
WG600S	YZ35	1	73# 82#	0.4～13.2
	2×YZ35	2	73# 82#	0.4～13.2

Note: The above applicable pump head, the number of suitable channels and the flow rate of a single channel are all obtained from the test of purified water with a Enterprise tube under normal temperature and pressure conditions in the laboratory. This data is for reference only, due to pressure in actual use, temperature, medium characteristics, tube material and other specific factors, the specific situation needs to consult our engineers.

◆Suitable Pump Heads for Peristaltic Pump Drives

YZ35

Peristaltic Pump Introduction

Peristaltic pump is a safe and reliable fluid transmission equipment, the fluid only contacts with the inner wall of the tube line, through squeeze the tube to realize the fluid transmission. Its unique no-valve, no-seal, tube line integrated transmission design, Ensure the cleanliness of the fluid, reduce the risk of leakage, and make the fluid more reliable, safe and clean way of transmission.

Working Principle

The tube fits between the roller and the pressure block, forming a seal at the point of contact when squeezed. As the roller rotates and advances along the tube, the sealing contact advances with it. As the rollers pass, the tube returns to its original shape, creating a vacuum that draws in liquid. Before the roller reaches the end of the pressure block, a second roller starts compressing the tube at the beginning of the pressure block, isolating the fluid between the two compression points. As the first roller clears the pressure block, the second roller continues to expel the liquid through the discharge port of the tube.

At the same time, a new partial vacuum is created behind the second roller, sucking in more liquid from the inlet. There is no back flow and siphoning, and the pump effectively seals the tube when not in use, so there is no need for a separate valve.

Description

WG600S industrial speed variable peristaltic pump is suitable for large-flow liquid transmission in industrial occasions. Adopts DC brushless motor drive, maintenance-free, more powerful, can cascade double pump head. With the basic functions of forward and reverse rotating, start/stop, full speed (wash) and speed regulation, it can adjust the rotational speed through external analog, control start/stop and rotating direction, and meanwhile, it has added the time dispensing function. And it adopts MODBUS protocol in RS485 communication, which is easier to connect with other control devices such as computers, HMIs, PLCs, etc. Stainless steel shell, corrosion-resistant.

WG600S flow range: 0.4-13.2L/min, speed range 30-600rpm.

Technical Parameters

WG600S Technical Parameters

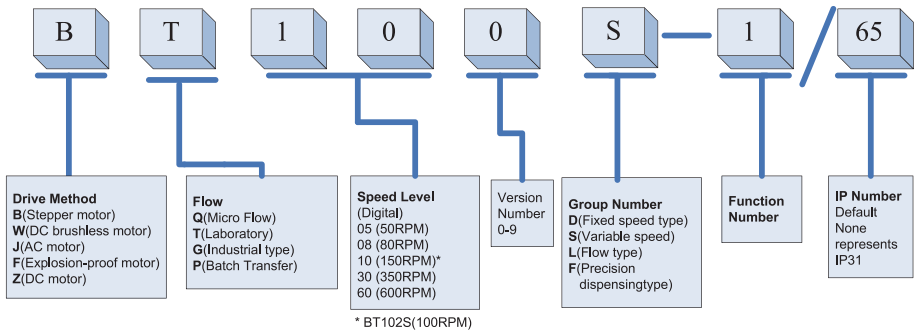
Functions

Suitable Pump Heads	YZ35, 2× YZ35
Key Functions	Control speed, rotation direction, start and stop, full speed, working mode, state memory (power-off memory), dispensing operation and other parameters.
External Control Functions	Foot switch control, external control start/stop, external control forward and reverse rotating, 5-24V wide range input, photoelectric isolation, analog 0~5V/0~10V/4~20mA software setting switching.
Communication Functions	RS485, support Modbus communication protocol, optional WI-WIFI remote control.
Display Functions	Displays the current speed
Direction Control	Free adjustment of forward and reverse rotation direction.

Performance

Flow Range	0.4~ 13.2L/min
Speed Range	30~ 600 rpm
Speed Resolution	1 rpm, accuracy error less than ±3%
Dispensing Range	0.1～999 Second
Adjustment Method	Mask key operation
Display Method	Four digital LED nixie tube display
Applicable Power Supply	AC 110V
Wattage	<300W
Working environment	Temperature 0- 40°C Relative humidity<80%
Dimensions	356×232×224 mm
Drive Weight	13kg
Degree of Protection	IP31
Degree of Pollution	2

Naming Rules



* BT102S(100RPM)

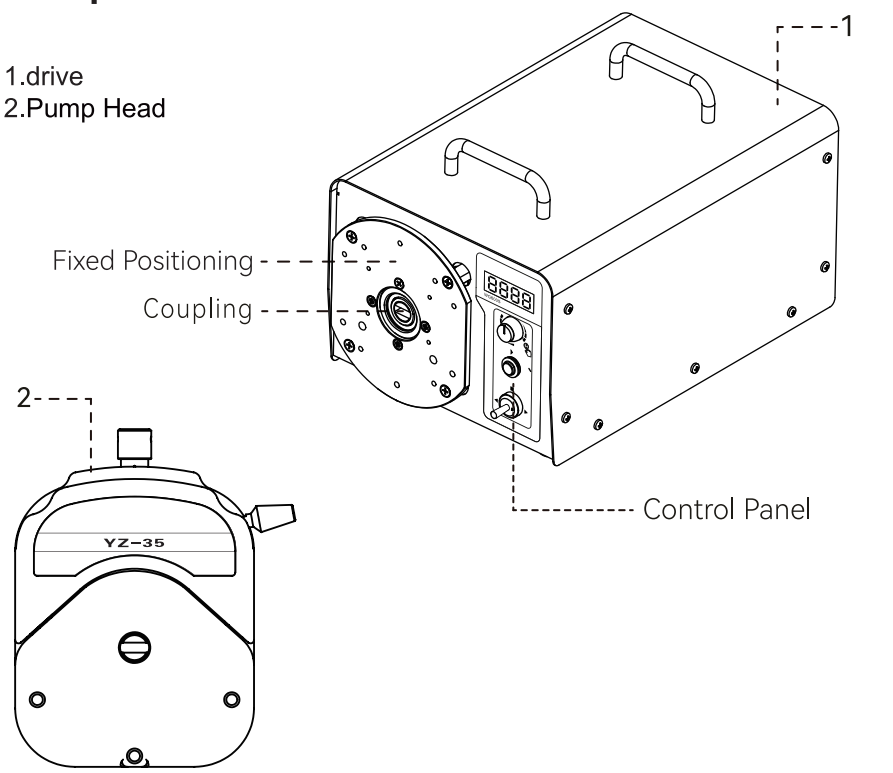
Applications

- The pump body does not touch the liquid.
- No valve blockage.
- The inner surface is smooth and easy to clean.
- The suction lift can reach up to 8 meters of water column.
- Low shear force, can be used to transfer emulsions or liquids containing foam, cells, etc.
- Suitable for transporting liquids containing gases, magnetic beads, or suspensions containing small particles.
- It is suitable for accurate metering and quantitative feeding, and high filling accuracy can be obtained by selecting appropriate tube diameter and filling efficiency.
- Suitable for transporting viscous liquids.
- The liquid only comes into contact with the tube
- If use food and medical grade tube, this pump can be used for food and medical transmission and filling.
- Replacement tube of special material to transfer abrasive liquids.

Functions and Features

- The current speed and working mode are displayed on four digital nixie tube.
- Key operation.
- With forward and reverse rotating, start and stop, full speed and speed regulation functions.
- Easy time dispensing control.
- The speed range is 30-600rpm, speed resolution is 1rpm, and the speed accuracy error is less than ± 3%.
- External analog controls speed. External control signal controls start and stop, forward and reverse rotating, and the signal is optoelectronic isolation.
- The circuit board is sprayed with conformal coating to achieve the effect of dustproof and moistureproof.
- Super anti-interference characteristics, wide voltage design, suitable for complex power supply environment.
- The stainless steel shell is easy to clean and effectively protects against the corrosion of various acids, alkalis, salts and organic solvents.

Components and Interfaces



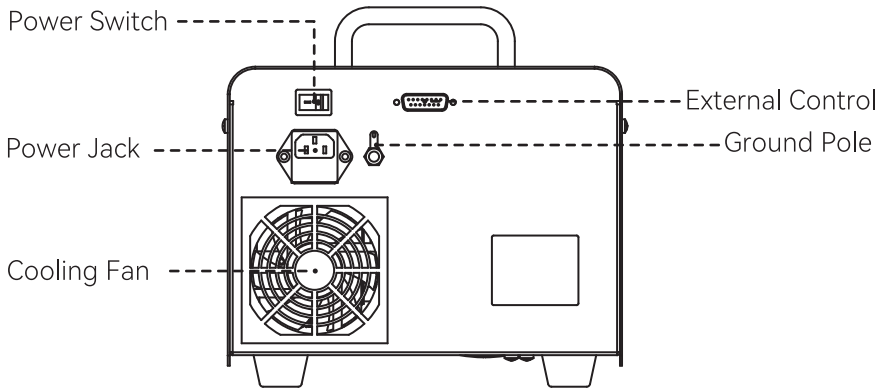


Figure 1 Components and Interfaces

> Note: There are no parts in the pump that can be repaired by the user. If the user repairs by himself, the warranty of the pump will be invalid. If there is a fault that cannot be solved after checking the software and connecting the external hardware, please contact the Lead Fluid, and do not repair by yourself.

Dimensions

Unit: mm

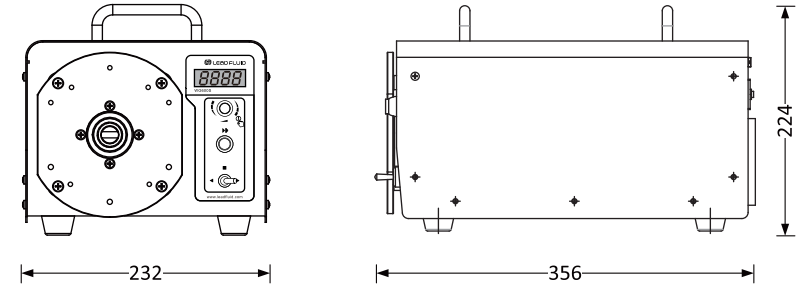


Figure 23Dimensions of WG600S

Ordering Information

Product Model	Description	Order Number
WG600S		

Table 5 Ordering Information

Optional Accessories Table

Accessories list	Description	Order Number
Foot switch		1060200100017

Table 6 Table of Optional Accessories

◆Malfunction Solutions

NO.	Malfunction Type	Malfunction Description	Solutions
1	Hardware	No display	1. Check whether the power cord is connected properly. 2. Check whether the fuse is blown. If it is blown, please contact the manufacturer for replacement.
2	Hardware	The motor does not rotate	1. Check whether the flow or speed is set too small, such as 0.1rpm.
3	Hardware	Drive is trembling	1. Check that the pump head screws and plate rod are tightened.
4	Hardware	The motor rotates in only one direction	1. Check that the direction keys are working properly. 2. Check whether the external control direction signal is normal.
5	Hardware	Key does not work	1.Whether it is locked.
6	Hardware	Noisy when the pump is running	1. Around 70 rpm and 120 rpm, it belongs to the resonance frequency of the motor, and it is normal for the sound to be loud. 2. Check that the pump head screws and plate rod are tightened.
7	Hardware/ Software	Communication does not work	First check the software: 1. Whether the mode is communication mode. 2. Reset the machine address. 3. Check if there are two machines on the bus using the same address. If the problem is not resolved, continue to check the hardware: 4. Check if the connection is correct 5. Check whether the external control power supply supplies power.
8	Hardware/ Software	External controldoes not work	First check the software: 1. Whether the mode is external control mode. If the problem is not resolved, continue to check the hardware: 2. Check if the connection is correct. 3. Check whether the external control power supply supplies power.

Table 6 Malfunction Solutions Reference Table

Note: This product is not medically certified. When used as a component in a medical device, the medical device itself must have medical certification.

Display Panel and Operating Keypad

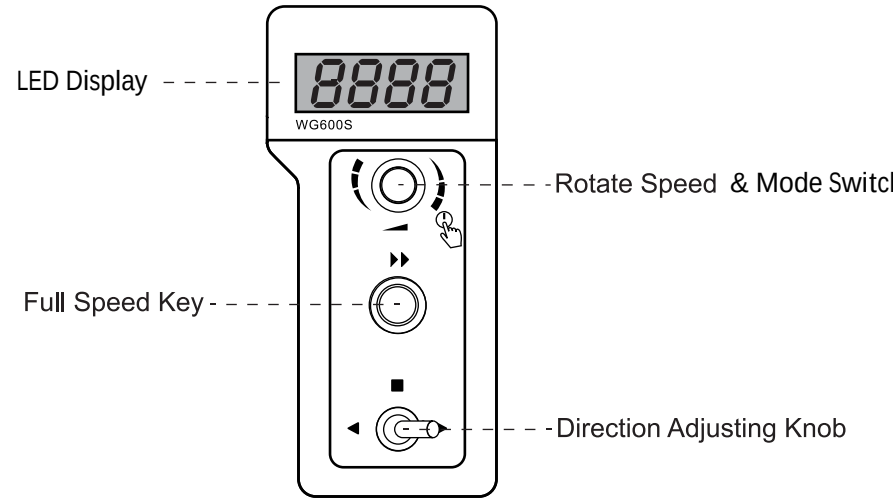


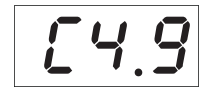
Figure 2 Display Panel

◆Nixie Tube

Displays the current speed and working mode.

The figure below shows that it is currently in internal control mode, and the speed is 215 rpm.

The figure below shows that it is currently in the time dispensing mode, and the speed is 215 rpm.



The figure below shows shat the four-digit nixie tube flicker, indicating that in the time dispensing setting interface, C4.9 indicates that the dispensing time is 4.9 seconds. The time of dispensing can be adjusted by up key and down key.

The figure below shows that the current mode is external control, and the speed is 100 rpm.

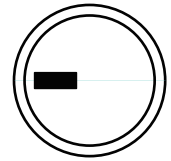
The figure below shows that it is currently in level mode, and the speed is 215 rpm.

The figure below shows that it is currently in communication mode, and the speed is 215 rpm.

The four-digit nixie tube in the figure below shows FULL, which means full speed (wash) state.

◆Keypad

- **Speed Control Knob**



A. Turn Clockwise: the value increases. Rotate one scale, the lowest digit of the value will add one. Rotate continuously, the value will add ten continuously In the dispensing time setting interface, when the time is less than 100 seconds, rotate one scale, and the time will increase by 0.1 second. When the time is greater than 100 seconds, rotate one scale, time increases by 1 second. Continuous rotating, time increases rapidly.

B. Turn Counterclockwise: The value decreases. Rotate one scale, the lowest digit of the value will decrease one. Rotate continuously, the value will decrease ten continuously. In the dispensing time setting interface, when the time is less than 100 seconds, rotate one scale, and the time will decrease by 0.1 second. When the time is greater than 100 seconds, rotate one scale, time decreases by 1 second. Continuous rotating, time decreases rapidly.

C. Press and Hold the Speed Control Knob: Mode switch function the direction adjustment knob is in the middle. When the pump is stopped, each time the knob is pressed for a long time, the control mode will switch once, as shown in the figure below:

◆Maintenance Worksheet

Regular maintenance of the pump according to the maintenance schedule will help reduce damage to pump components and ensure personal and property safety.

Maintenance Tasks	Frequency	Actions After Exception
Check if the pump leaks and damage.	1. Check before starting each time. 2. Daily visual inspection. 3. Periodic inspection during pump operation.	1. Before operating the pump, repair leaks and damage. 2. Replace parts when necessary. 3. Clean up all spilled liquid.
Check for abnormal temperature or noise during pump operation.	1. Daily visual inspection. 2. Periodic inspection during pump operation.	1. Check and replace worn parts.
Do you need to replace the tube	1. Check the condition of tube at most every three days	Please replace the tube in the following situations: 1. When the flow rate is lower than 75% of the original value. 2. When the tube has burst and is badly worn. 3. When the user-defined replacement cycle is reached.
Check pump head and rotor assembly.	1. Regularly check the wheel flexibility every week. 2. Check when replacing tube. 3. Once a year complete inspection for wear and tear, check bearing clearance and function.	1. Worn and damaged surfaces can lead to premature tube failure, replace worn parts promptly

Table 4 Maintenance Work List

☻Special Instructions

Please check the model specifications before using tubes and other consumable products. Please note that once unpacked and used, returns and exchanges are no longer accepted unless there are quality problems.

◆Drive Spare Parts

Spare Parts	Model	Spare Part Number
Blown fuses	3A	3020200100006
Power cable	250V 10A	3022300200016

Table 3 Drive Spare Parts

◆Daily Maintenance

- Regularly check the tube for breakage or loss of elasticity.
- There is a cooling fan behind the peristaltic pump, please do not cover it to avoid affecting heat dissipation.
- Peristaltic pumps can not be flushed with water, if the pump tube rupture during operation, the liquid in the pump head should be dried or dried in time.
- Do not use chemical solvents to clean the peristaltic pump and pump head surface.

⚠	Note: Always disconnect the pump from the mains power before opening the pump head cover to change tubes, or performing any assembly, disassembly or maintenance activities.

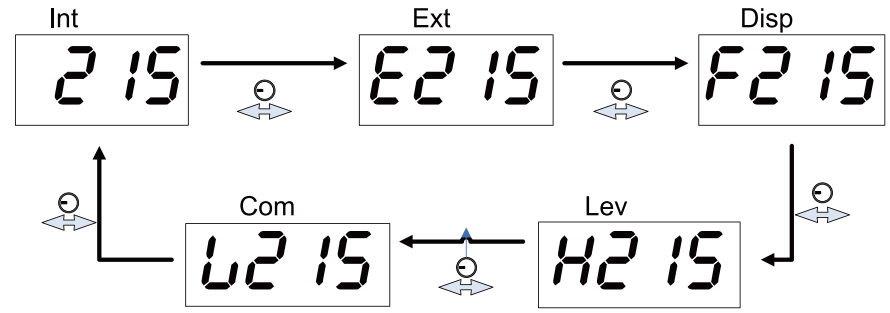


Figure 10 Mode Switching

- Full Speed Key

Press this key to switch between the highest speed and the original state.

- Direction Adjustment Knob

A:Turn to the left: the motor rotates counterclockwise.
B:Pull to the middle: the motor stops running.
C:Turn to the right: the motor rotates clockwise.

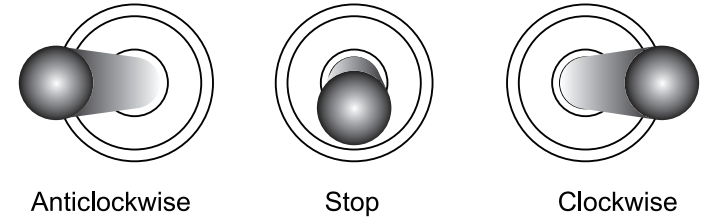
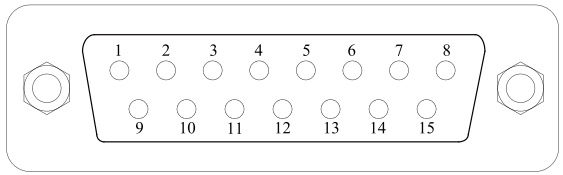


Figure 11 Direction Adjustment Knob

External Control Interface Description



DB15 number	English Notes	Description
1	ADC_W	Positive end of external analog signal input
2	B	Communication interface, B-end of RS485
3	A	Communication interface, A-end of RS485
4	VCC_W	External power input terminal
5	DAC	Analog voltage output terminal
6	CW_W	External direction signal input terminal
7	PWM	Pulse output terminal
8	COM	External public areas
9	AGND	The negative terminal of the external analog signal input
10	+12V	Internal+12V power output terminal
11	GND	Internal power supply ground
12	CW	Internal direction signal output terminal
13	RS_W	External start stop signal input terminal
14	PWM_W	External pulse signal input terminal
15	RS	Internal start stop signal output terminal

Table 1 Definition of External Control Pins

Note: Follow the legend pins to provide the correct signal. Do not exceed the specified range of the signal value. Please pay attention to the specified voltage range when connecting to an external power supply, otherwise it may cause permanent damage and will not be covered by the warranty.

Note: Follow the legend pins to provide the correct signal. Do not exceed the specified range of the signal value. Please pay attention to the specified voltage range when connecting to an external power supply, otherwise it may cause permanent damage and will not be covered by the warranty.

Note: Low voltage signals must be isolated from mains power. Use a separate shielded ground input wire.

Note: Use a qualified protective wire sleeve at the end of the multi-strand cable, otherwise there will be a risk of damage to the equipment.

- Turn on the power switch, press the speed control knob to switch the mode to communication mode.

- Turn the direction adjustment knob to one side to control the various functions of the pump through communication.
- Turn the direction adjustment knob to the stop position, and the pump will stop running.

Malfunction and Maintenance

◆Warranty and After-sales

☻Three years free warranty for the whole drive.

1. The scope of warranty is the complete drive, and the pump head, tube and its consumables are not covered by the warranty.
2. The starting method of the warranty period is calculated from the purchase date shown on the customer's valid purchase certificate.
3. If there is a quality problem within the warranty period, Enterprise is responsible for free repair and replacement.
4. If there are problems caused by human factors such as water ingress, falling, improper use, etc., Enterprise is free of manual repair fees, and only charges for material costs.

Note: Use this mode when the dispensing is controlled by an accessory called dispensing controller.

◆Communication Mode

RS485 communication supports MODBUS protocol, which can control various functions of the pump. For specific parameter addresses and support instructions, refer to the communication technical standard of Enterprise.

- With the power supply disconnected, refer to Figure 20 or Figure 21 for wiring. Then connect the DB15 interface to the back interface of the pump.

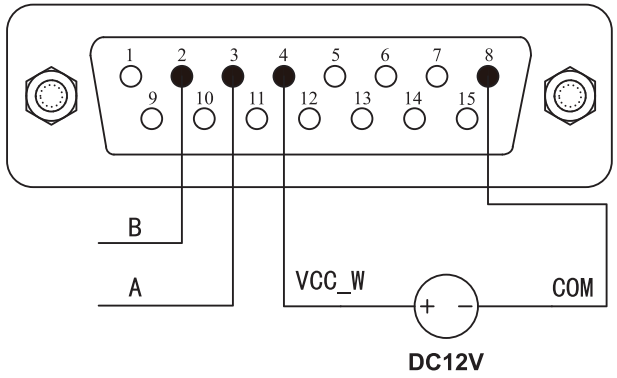


Figure 20 Communication External 12V Power Supply Wiring Diagram

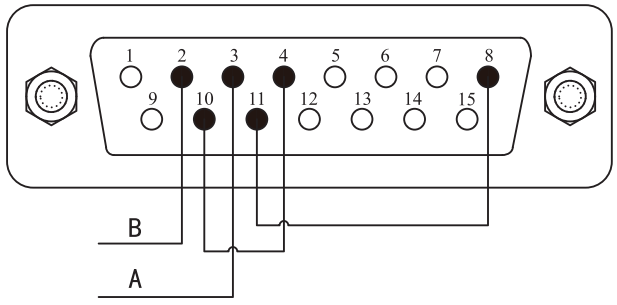


Figure 21 Communication Internal 12V Power Supply Wiring Diagram

Note: Low voltage signals must be isolated from mains power. Use a separate shielded ground input wire.

Note: Use a qualified protective wire sleeve at the end of the multi-strand cable, otherwise there will be a risk of damage to the equipment.

Installation Instruction

◆Before Operation

- Please compare the packing list to check whether all accessories are wrong or damaged when you open the outer package of the pump. Please contact Enterprise or agent in time, if you find any problems.
- Read the operation manual carefully, and keep it at hand, or keep it in a fixed place for reference at any time.
- Place the pump on a level table with the rear at least 20 cm away from obstacles.

◆Install Pump Head and Tube

For detailed installation steps, please refer to the operation manual of the corresponding pump head!

Install YZ35 pump head

- Align the flat shaft of the pump head with the groove of the drive coupling and push in. Then turn the pump head so that the screw holes of the pump head are aligned with the screw holes of the pump head bracket of the drive and push in. After fitting the pump head and its bracket, put three fixing screws into the fixing holes of the pump head and tighten them.

Install the Tube

Pull the pump head lever to open the pump head, put the tube into the pump head smoothly and straighten it, pull the lever in the opposite direction to the horizontal position, and the tube is installed.

Power Connection

Plug the supplied power cord into the power socket on the rear of the drive.

⚠	Note: Make sure all power supply wires are rated for equipment wattage.
⚠	Note: The pump must be located so that it can be easily disconnected from the power source when the equipment is in use.
⚠	Note: Please use the same power supply as that on the nameplate of the machine, otherwise the equipment will be damaged!

Operation Instructions

◆Internal Control Mode

The operation of the pump is controlled by the knobs on the front panel of the pump.

- Turn on the power switch, the LED nixie tube will display numbers, and the ring light of the full speed key will light up.
- In the stop state, long press the speed control knob to switch the mode to the internal control mode.
- Turn the knob to adjust to the speed to be set.
- Turn the direction adjustment knob to the side of the direction to be run, and the pump starts to run.
- Press full speed key and the pump will run at maximum speed.
- Turn the direction adjustment knob to the middle, and the pump stops.

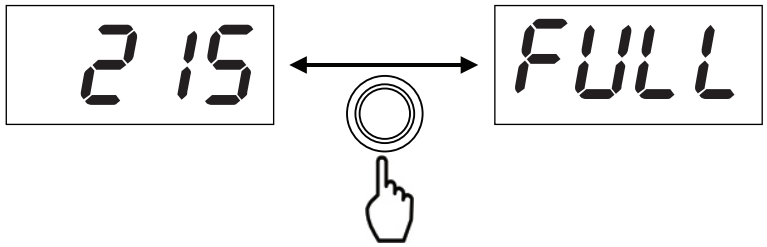


Figure 12 Full Speed Switching

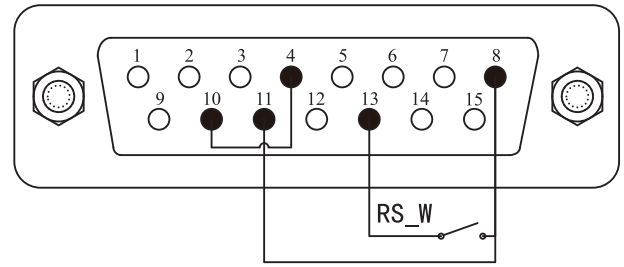


Figure 19 Internal 12V Power Supply Wiring Diagram in Level Mode

⚠	Note: Follow the legend pins to provide the correct signal. Do not exceed the specified range of the signal value. Please pay attention to the specified voltage range when connecting to an external power supply, otherwise it may cause permanent damage and will not be covered by the warranty.
⚠	Note: Low voltage signals must be isolated from mains power. Use a separate shielded ground input wire.
⚠	Note: Use a qualified protective wire sleeve at the end of the multi-strand cable, otherwise there will be a risk of damage to the equipment.

- Turn on the power switch, the LED nixie tube will display numbers, and the ring light of the full speed key will light up.

- In the stop state, press the speed control knob to switch the mode to the level mode.
- Rotate the knob to adjust to the speed to be set.
- Turn the direction adjustment knob to the side
- of the direction you want to run.
- Connect the switch of external RS_W, the pump will run according to the set speed. Disconnect the switch of external RS_W, the pump will stop run.
- Turn the direction adjustment knob to the stop position, and the pump will stop running.

second, rotate the knob counterclockwise by one scale, the time decreases by 1 second. When the knob is turned clockwise/counterclockwise continuously, the time increases/decreases rapidly. The time range is 0.1-999 seconds.

- Press the full speed key again to exit the dispensing time setting
- interface.
- Turn the direction adjustment knob to the side of the direction to be run, and each time the full speed key is pressed, the dispensing is performed once.
- During the dispensing process, turn the direction adjustment knob to the
- stop position to stop the dispensing process.
- Dispensing can also be started with a foot switch.

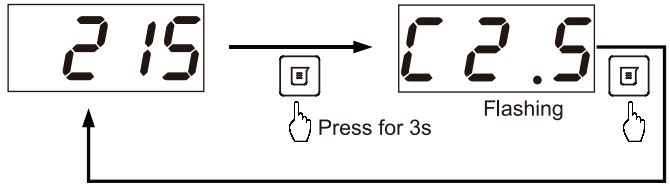


Figure 17 Dispensing Mode

◆Level Mode

The external high and low levels control the start and stop of the pump and the direction and speed are controlled by keys on keypad.

• When the power is cut off, connect the circuit according to figure 18 or figure 19, and connect the DB15 interface to the back interface of the pump.

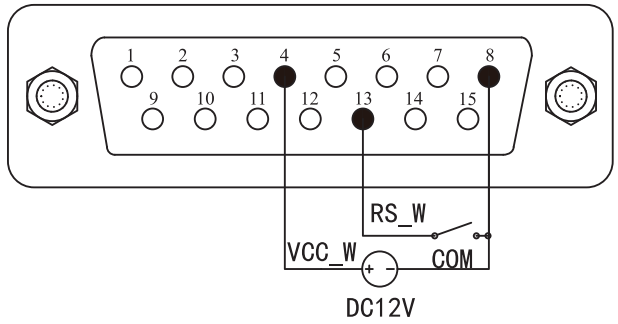


Figure 18 External 12V Power Supply Wiring Diagram in Level Mode

◆External Control Mode

The speed is controlled by the external input analog quantity. the start/stop and direction are controlled by switch quantity signal. The knob on the control panel do not work.

• With the power supply disconnected, refer to Figure 13 or Figure 14 for wiring. Then connect the DB15 interface to the back interface of the pump.

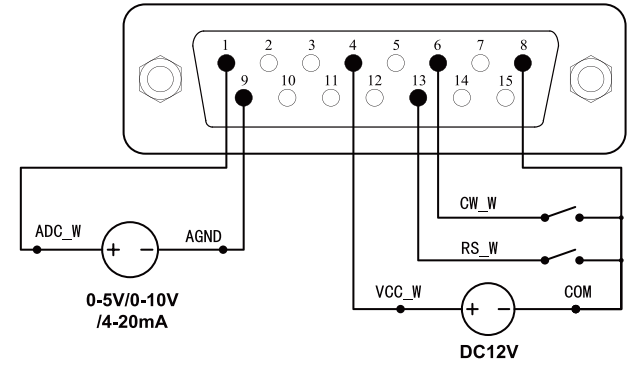


Figure 13 Wiring Diagram for Connecting External DC12V Power Supply in External Control Mode

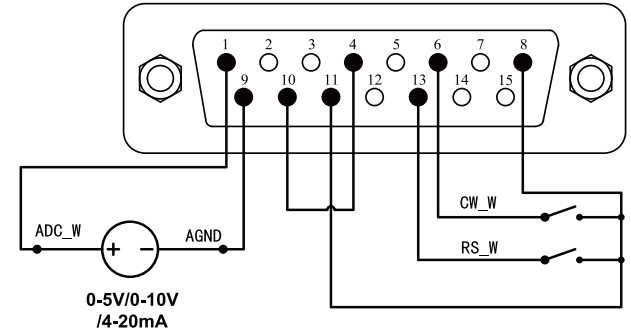


Figure 14 Wiring Diagram for Connecting Internal DC12V Power Supply in External Control Mode

⚠	Note: Follow the legend pins to provide the correct signal. Do not exceed the specified range of the signal value. Please pay attention to the specified voltage range when connecting to an external power supply, otherwise it may cause permanent damage and will not be covered by the warranty.
⚠	Note: Low voltage signals must be isolated from mains power. Use a separate shielded ground input wire.
⚠	Note: Use a qualified protective wire sleeve at the end of the multi-strand cable, otherwise there will be a risk of damage to the equipment.

- Turn on the power switch, the LED nixie tube will display numbers, and the ring light of the full speed key will light up.
- In the stop state, long press the speed control knob to switch the mode to the external control mode.
- Connecting the switch of the external RS_W, turn on the analog power supply, the pump will change the speed with the change of the analog value, disconnect the switch of the external RS_W, the pump will stop running.
- Disconnect the CW_W switch and the pump runs in clockwise direction. Connect the CW_W switch and the pump runs in counterclockwise direction.

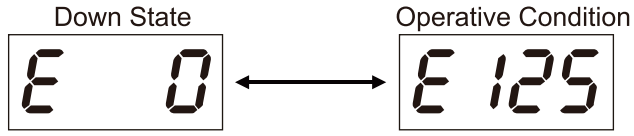


Figure 15 External Control Mode

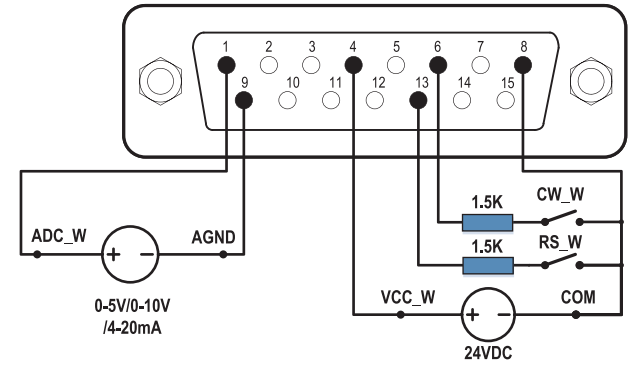


Figure 16 Wiring Diagram for Connecting External 24V Power Supply in External Control Mode

⚠	Note: If you want to use an external 24V DC power supply to control the start, stop and direction of the pump, you need to use a 1.5K resistor in series with RS_W and CW_W, as shown in figure 14, otherwise it will cause damage to the internal circuit of the pump.

◆Dispensing Mode

Liquid volume dispensing is performed by setting the time. Every time the dispensing key is pressed, the pump will run once according to the set time, and stop automatically after the set time is reached.

- Turn on the power switch, the LED nixie tube will display numbers, and the ring light of the full speed key will light up.
- Press and gold the speed control knob to switch the mode to the time dispensing mode.
- Put the direction adjustment knob in the middle, press and hold the full speed key for 3 seconds under the stopping state, the four digital nixie tube flash at the same time, and enter into the interface of dispensing time setting.
- Rotate the speed control knob to change the time of dispensing, when the time is less than 100 seconds, rotate the knob clockwise by one scale, the time increases by 0.1 second, rotate the knob counterclockwise by one scale, the time decreases by 0.1 second. When the time is more than 100 seconds, rotate the knob clockwise by one scale, the time increases by 1