

Shenchen Precision Pump Manual of OEM-KTB002



Baoding Shenchen Precision Pump Co.,Ltd.



Note:

- Please read the manual carefully before operating the product.



Warning:

- Connect the power cord to the wall socket directly, and avoid using the extended electric wire.
- If the power cord or plug had wear and other damage, please disconnect the plug. (Hold the plug instead of the wire)
- If following situations happened, please turn off the power supply and disconnect the plug. (Hold the plug instead of the wire)
 1. Fluid splash on the pump.
 2. You think the pump need to maintain or repair.
- The user's power socket must have ground wire, and have reliable grounding.

Note: The foot pedal switch and other external control plugs must be connected or disconnected in the power-off status to prevent the external control interface from being burned.

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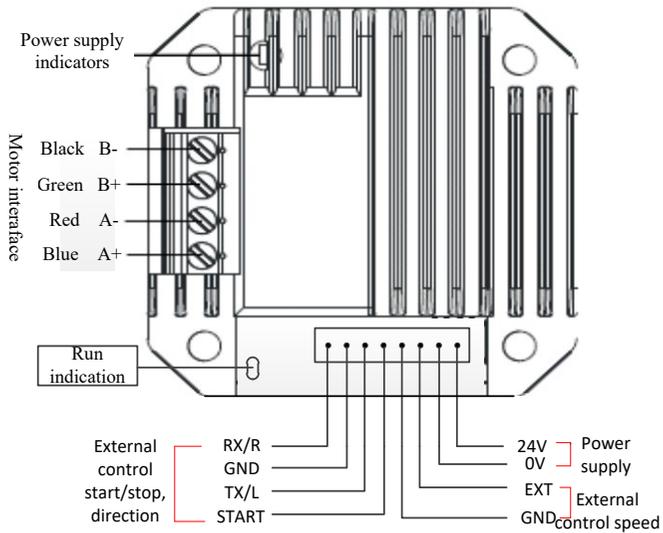
1. Product Introduction

The control module of the mainboard has the function of 4-20mA external analog speed regulation, passive switch control start/stop, direction.

Suitable pump head: KT15 series flip type pump head.

2. Product Interface Definition

2.1 Mainboard control module wiring diagram



**2.2 Main board interface instruction**

Name	Definition	Note
24V	Power supply positive terminal	DC24V
0V	Power supply negative terminal	
EXT	External control speed analog signal input	4-20mA external control analog signal
GND	Analog signal ground	
START	External control start/stop interface	Low level start (start when short-circuited to GND and stop when disconnected)
TX/L	Direction signal (counterclockwise)	Low level is valid; TX/L and GND short-circuited, run counterclockwise; RX/R and GND short-circuited, run clockwise;
GND	External control start/stop, direction ground	
RX/R	Direction signal (clockwise)	

2.3 Operation instruction

- Start/stop: START short-circuited to GND to start, disconnected to stop running (only the direction signal short-circuited to GND, the pump will start);
- Direction: TX/L short-circuited to GND to run in counterclockwise; RX/R short-circuited to GND to run in clockwise;
- External control analog speed: EXT is positive terminal of the analog signal 4-20mA, GND is the negative terminal of the analog signal.



3. Technical Specification

Speed range	0.1-400rpm
Control method	Switch signal to control the start/stop, direction
Speed control	External analog speed regulation 4-20mA
Power Supply	DC24V ≥ 36W
Environment temperature	0-40°C
Environment humidity	≤80% RH no condensation
Work environment	Keep away from heating device, avoid dust, oil, corrosion gas and strong vibration site

4. Main Functions and Features

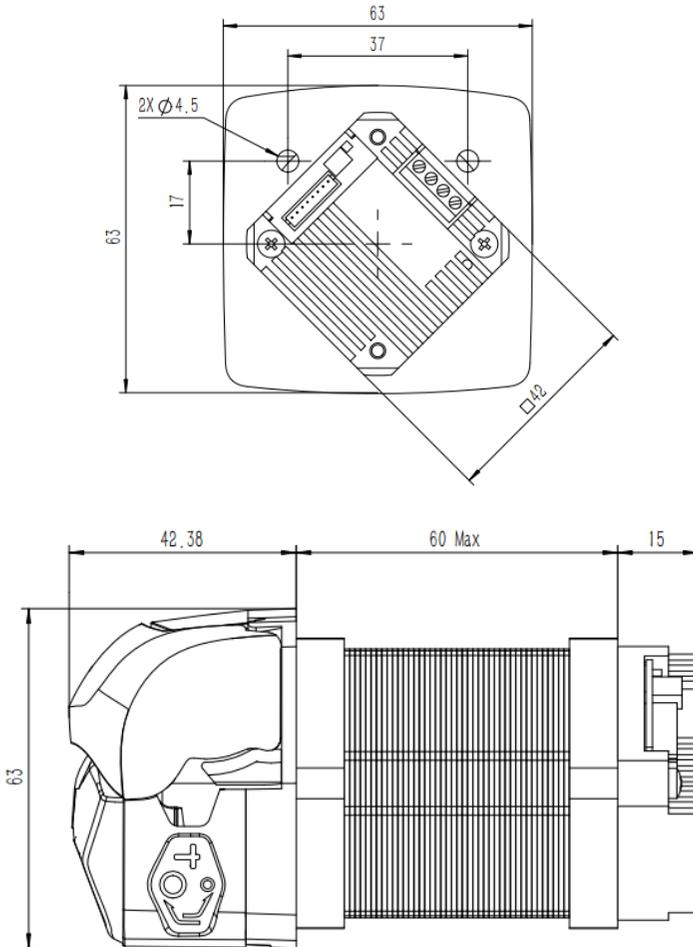
- 4.1 Simple to operation.
- 4.2 External analog speed control signal is 4-20mA.
- 4.3 External switch signal controls the start/stop and direction, convenient remote control.

5. Pump Head Instruction

For details, please refer to *Shenchen Pump Head Instruction Manual*.

6. Dimension Drawing

(Unit:mm)



7. Maintenance

- Check the running status of machine before starting it, ensure that the power supply of the device is reliably grounded. Normal operation can be put into use. The external wiring of the equipment must be operated in the power-off state to prevent burning the equipment.
- Check if it is damage for the tubing and the equipment is leakage, please ensure that liquid in the tubing is discharged to the container or discharge pipe; Wipe the leaked liquid around the pump in time and correct any possible faults in time. Keep the rollers of pump head clean and dry, otherwise it can quicken the tubing wear (it also can damage the tubing cause of solid substances in the liquid), reduce the useful life of tubing and lead the rollers to damage in earlier; If the pump head in water accidentally, use soft cloth and other absorbent soft cloth to wipe dry to prevent damage to the pump head. If liquid splashed on the pump, please turn off the power supply and unplug the power wiring; Check whether liquid is in inner, if it enters equipment, please contact manufacture.
- The factors affecting the flow are as follows:
 - 1) The inner diameter and wall thickness of tubing may have some deviations due to its tolerance and different bathes.
 - 2) Different liquid properties
 - 3) It will decrease flow rate when input port and output port change small or there are suction and lift.
 - 4) The speed of DC/AC motor will change according to load, temperature and humidity.

That may make influence on product flow accuracy, please leave a margin when choose tubing.



- This product has no waterproof measures. Please take protective measures when using in water environment. When the product does not use for a long time, please clean it and keep it in dry and ventilated environment.
- Pump head can not resist organic solvent (Except for special indication) and strong corrosion liquid, please be attention when use it.
- The data tested in a short time in this manual may change for using a long time.
- The current will over the rated running current when DC/AC motor starts or blocks, it may be about 3-5 times the rated operating current;
- This product does not have special certification such as medical certification. When it needs to be used in special fields such as medical and military, please self-certify. Load changes will also cause changes in operating current. Therefore, please conduct margin design for power supply power
- The company shall not bear the direct and indirect losses caused by the malfunction or improper operation of this product.



8. Warranty and After-sales Service

We support 1 year warranty for the pumps, subject to the exceptions below. Our company shall not be liable for any loss, damage, or expense directly or indirectly related to or arising out of the use of its products. This warranty does not obligate our company to bear any costs of removal, installation, transportation, or other charges which may arise in connection with a warranty claim.

If the pump fails during the warranty period, after confirmation by our technical department, we will provide spare parts free of charge. Customers will need to bear the shipping cost.

Exceptions:

- The warranty shall not apply to repairs or service necessitated by normal wear and tear or for lack of reasonable and proper maintenance.
- All tubing and pumping accessories as consumable items are excluded.
- Electrical surge as a cause of failure is excluded.
- Chemical attack is excluded.
- Improper operation or man-made damage as a cause of failure is excluded.

MADE IN CHINA

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