K KAMOER KCM-ODM

Kamoer KCM-ODM Stepper Peristaltic Pump Instruction Manual

Model: KCM-ODM

1. Product Overview

The Kamoer KCM-ODM is a compact stepper peristaltic pump designed for precise liquid dosing applications. It features a 12V/24V power input, adjustable flow rate from 10 to 452 mL/min, and comes equipped with a driver board (2802 Controller) for direct use. The pump utilizes Pharmed BPT tubing (4.8mm ID × 8.0mm OD) and a 3-rotor design for consistent performance. Its integrated controls allow for easy adjustment of flow speed and direction.

Image 1: Kamoer KCM-ODM Stepper Peristaltic Pump with integrated driver board.

2. Specifications

Feature	Detail
Voltage	DC 12V/24V
Flow Rate	10~452 mL/min
Tubing Material	Pharmed BPT (4.8mm ID × 8.0mm OD)
Working Temperature	0~40°C
Relative Humidity	<80%
Rotor Type	3 rotors
Driver Board	Integrated 2802 Controller
Pump Head Material	Silicone (food-grade)
Dimensions (Package)	7.09 x 4.92 x 4.69 inches
Weight (Package)	1.92 Pounds

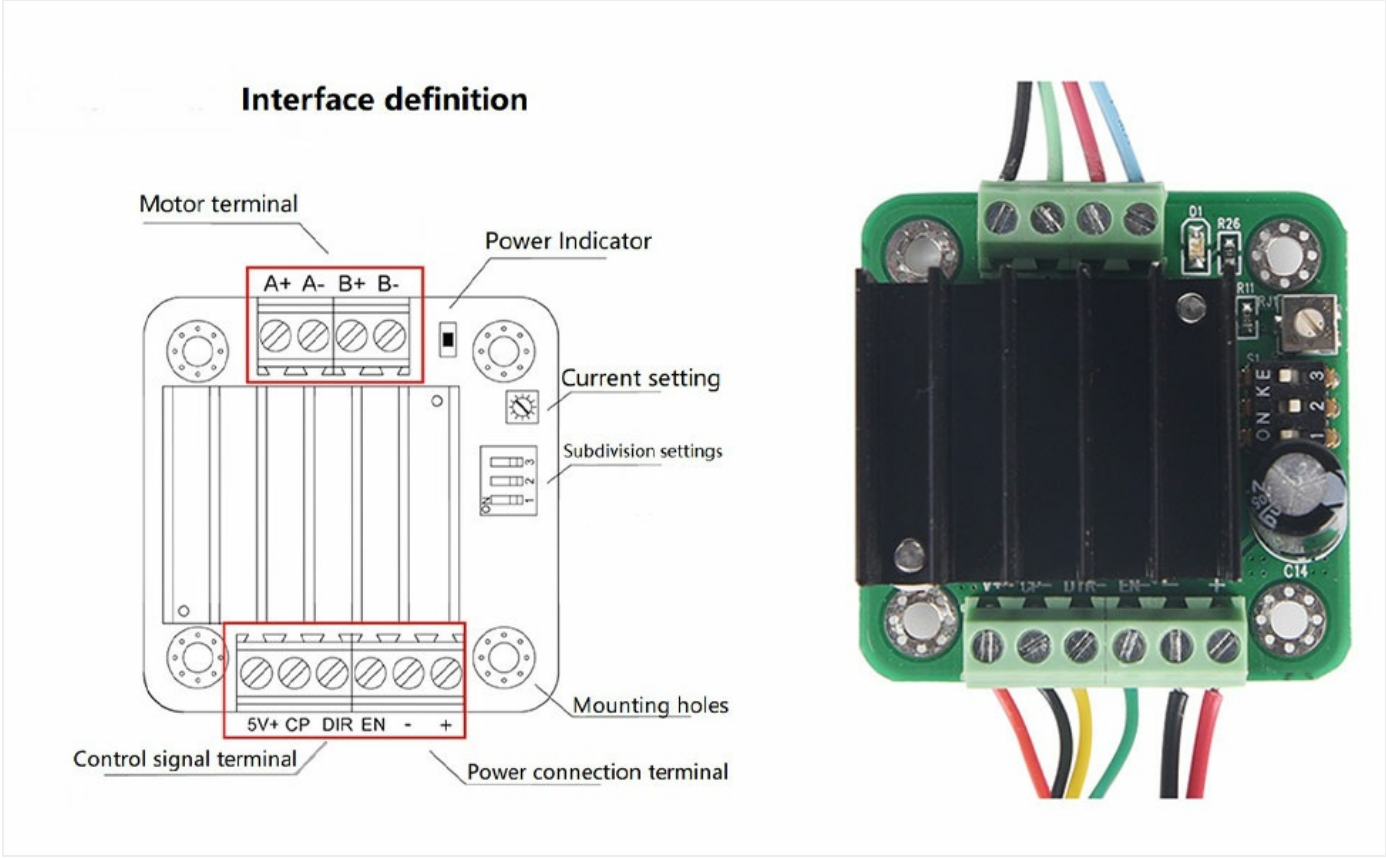

Image 2: Close-up view of the 3-rotor pump head and BPT tubing.

3. Setup and Installation

The KCM-ODM pump comes pre-assembled with its driver board, simplifying installation. Ensure the pump is placed on a stable, level surface in an environment within the specified working temperature and humidity ranges.

3.1 Electrical Connection

Connect the pump to a DC 12V or 24V power source. The integrated 2802 Controller is designed for direct wiring. Refer to the wiring diagram for proper connections.

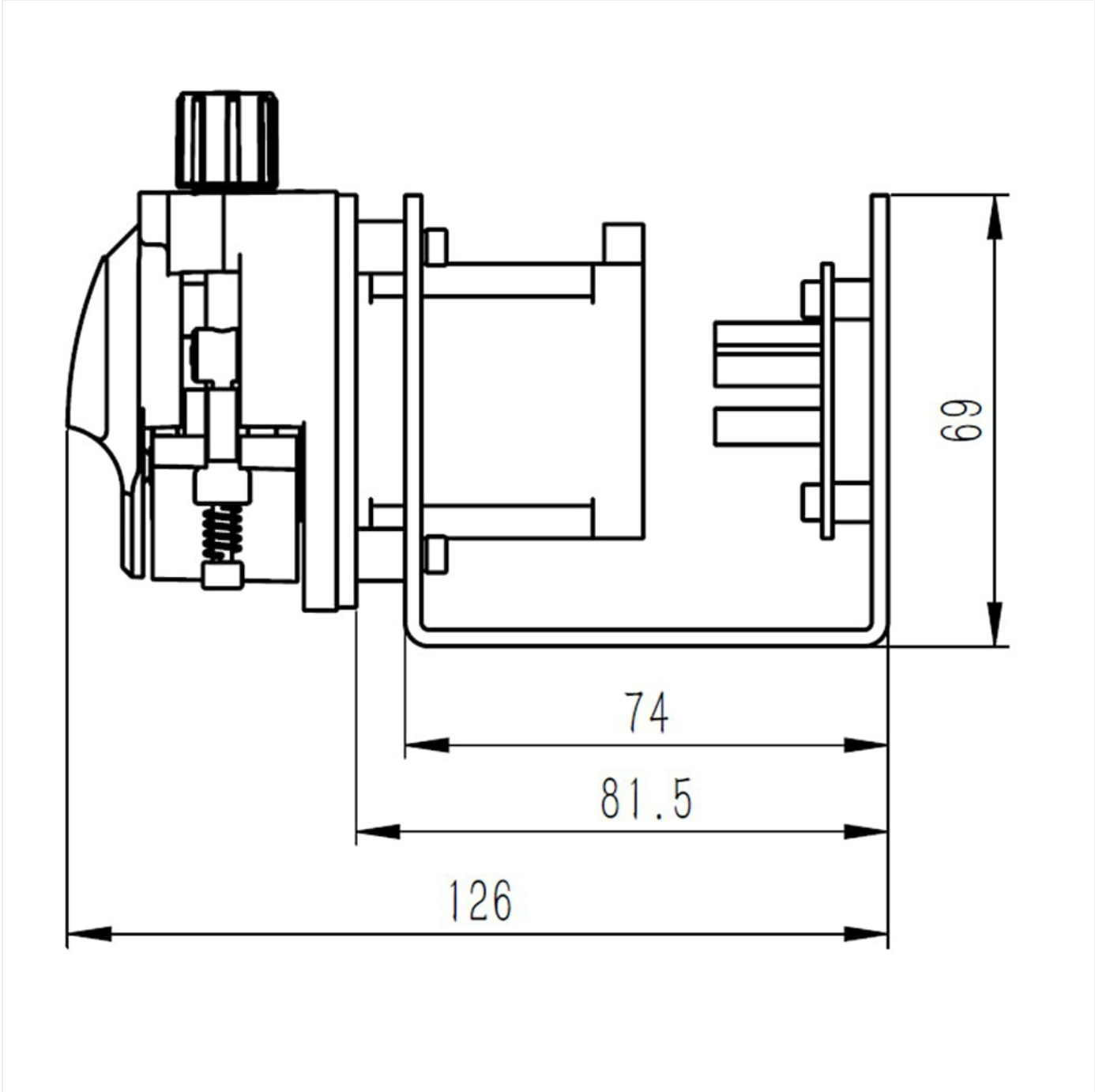

Image 3: Wiring diagram for the KCM-ODM controller and driver.

Note on Resistors:

- For 5V interface voltage: No resistor needed; connect directly.
- For 12V interface voltage: Connect a 1K resistor in series.
- For 24V interface voltage: Connect a 2.7K resistor in series.

3.2 Tubing Connection

Connect the inlet and outlet tubing to your liquid source and destination. Ensure all connections are secure to prevent leaks. The pump uses threaded joints for reliable connections.

Image 4: Detail of the threaded joint for tubing connection.

4. Operation

The KCM-ODM pump features intuitive controls for easy operation.

Image 5: KCM-ODM pump with labeled control buttons and speed knob.

1. **Start/Stop:** Use the **green button** to start or stop the pump.
2. **Flow Direction:** Use the **red button** to change the direction of liquid flow. This operation should be performed when the pump is paused.
3. **Speed Adjustment:** Rotate the **black knob** to adjust the flow speed. The current speed setting will be displayed on the integrated LED digital display.

Always monitor the liquid flow and adjust the speed as needed for your specific application. Ensure the tubing is properly primed before starting operation to avoid airlocks.

5. Maintenance

Regular maintenance ensures the longevity and optimal performance of your Kamoer KCM-ODM pump.

- **Tubing Replacement:** Peristaltic pump tubing is a wear-and-tear component. Regularly inspect the tubing for signs of wear, cracks, or degradation. Replace the tubing as necessary to maintain accurate flow rates and prevent leaks. The lifespan of the tubing depends on the pumped liquid, operating pressure, and frequency of use.
- **Cleaning:** If pumping corrosive or viscous liquids, flush the tubing with an appropriate cleaning solution or distilled water after use. Ensure the exterior of the pump and control board are kept clean and dry.
- **Storage:** When not in use for extended periods, disconnect the power and store the pump in a clean, dry environment away from direct sunlight and extreme temperatures.

6. Troubleshooting

This section addresses common issues you might encounter with your KCM-ODM pump.

Problem	Possible Cause	Solution

Problem	Possible Cause	Solution
Pump does not start	No power, incorrect wiring, faulty power adapter.	Check power connection and adapter. Verify wiring according to the diagram (Image 3).
No liquid flow or inconsistent flow	Tubing kinked or blocked, air in tubing, worn tubing, incorrect speed setting.	Inspect tubing for obstructions. Prime the tubing to remove air. Replace worn tubing. Adjust speed using the black knob.
Speed adjustment knob is stiff or stuck	Mechanical obstruction, internal issue.	Ensure no external debris is obstructing the knob. If the issue persists, contact support.
Pump is noisy	Improper mounting, worn components, foreign object.	Ensure pump is securely mounted. Inspect for any loose parts or foreign objects. If noise is excessive, contact support.

7. Applications

The Kamoer KCM-ODM peristaltic pump is suitable for a variety of applications requiring precise and controlled liquid transfer, including:

- Filling and packaging systems
- Laboratory experiments and research
- Chemical dosing in industrial processes
- Food and beverage dispensing
- Medical and pharmaceutical applications (e.g., secretion analysis, blood cell analysis)
- Environmental monitoring (e.g., water quality sampling)

Image 6: Examples of Kamoer peristaltic pump applications.

8. Warranty and Support

For warranty information or technical support, please contact Kamoer Fluid Tech (Shanghai) Co., Ltd. or your authorized distributor. Keep your purchase receipt for warranty claims.

Image 7: Product certifications.