

# Product Manual

Kamoer Fluid Tech(Shanghai) Co., Ltd.

Version : A/0

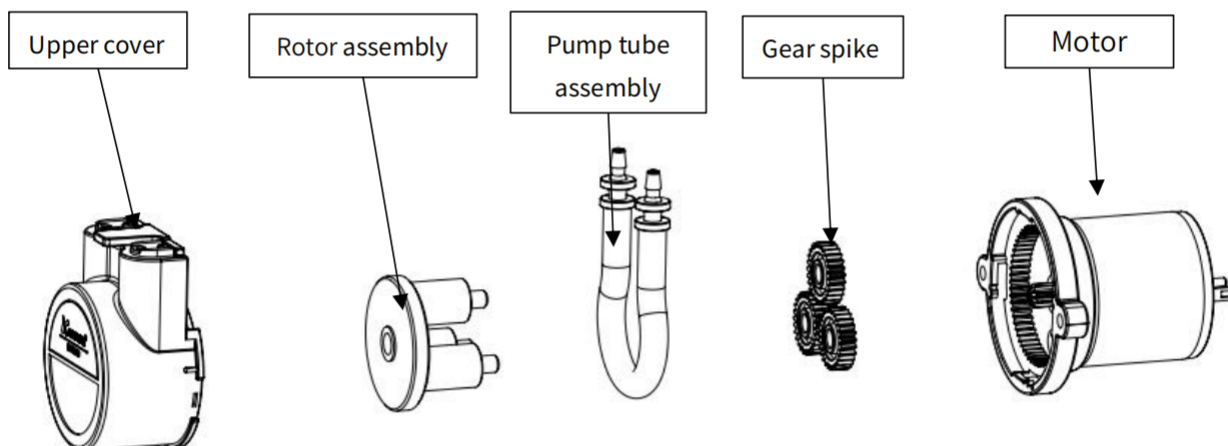
Product name	Micro Peristaltic Pump
Product model	KPK200
Execution date	2024.05.11
Company name	Kamoer Fluid Tech (Shanghai) Co.,Ltd.

## A、 Product Overview

### 1. Product picture



### 2. Product assembly drawing



### 3. Model Explanation

KPK200	SV	3	B	16	Null
Model	Motor model	Rotor	Tube type	Tube No.	Installation



## 3.1 Motor model



SW 12V DC Brushed  
SV 24V DC Brushed



12B 12V DC Brushless  
24B 24V DC Brushless

## 3.2 Rotor

3 rotors

## 3.3 Tube type

B: BPT pump tube

## 3.4 Tube number

16#: 3.2mm x6.4mm

## 3.5 Installation method

Empty: Standard installation

## 3.6 Product Material

Pump head model	Upper cover	Base	Gear	Rotor	Connectors
KPK200	PC	POM	PTE	PET	PP

# 4. Performance characteristics, typical applications

## 4.1 Performance characteristics

◆ KPK200 series peristaltic pumps are equipped with DC brush and DC brushless , 24V/12V motors, and can provide different voltage options


◆ The pump tube uses imported BPT (B) with a wall thickness of 1.6mm , which can be adapted to pump tubes of different materials to meet different liquid transmission needs.

◆ Matching hose and hard pipe joint fixing methods to meet the needs of different application scenarios

◆ Simple structure, small size , high cost performance

◆ The transmission mode is gear transmission, the reduction ratio is 1: 8 , and the reliability is high.



 Precise And Reliable Fluid Transfer	<b>Product Manual</b>		File No.: CPBZ- KPK200 -01
			Version No.: A0
	<b>Name :</b> Micro Peristaltic Pump	<b>Model :</b> KPK200	<b>Effective Date:</b> 2024-05-11

4.2 Typical Applications

- Food and drink
- Medical diagnosis
- Analytical Instruments
- Inkjet printing ink
- Washing cleaning
- Environmental protection equipment
- Experimental research
- Industrial machinery
- White goods
- Biochemical analysis

◆ If the hose is resistant to liquid media, it is necessary to check the chemical compatibility or conduct an immersion test. Improper hose selection may cause the hose to be damaged quickly.

◆ The working environment of the product should not exceed 45°C and the humidity should not exceed 70% (no condensation). A bad working environment will cause premature damage to the product.

◆ Liquid leakage accidents caused by hose rupture depend on the liquid medium and your specific application conditions.

◆ High overload may cause premature damage to the product

◆ After long-term use, the pump tube may deviate slightly, which does not affect the use of the product

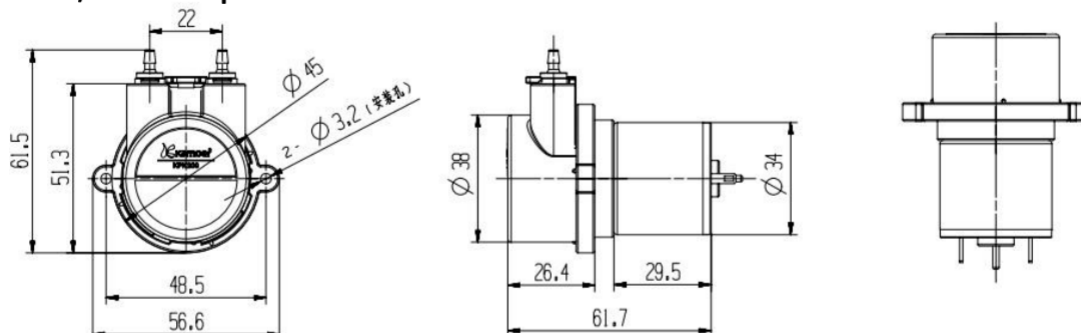
5. Product certification, intellectual property

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Utility Model	Design
Accepted	Accepted

## B、DC Brushed Product Specifications

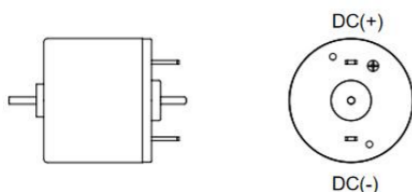
### 1. KPK200-SV/SW3B16 product dimensions



### 2. Technical parameters

Items		Technical Parameters
Basic Parameters	Motor Type	Brushed DC Motor
	Flow range	≥170ml/min
	Power	≤10W
	Control method	Switching control
	Weight	Approx. 135g
	Rated voltage	12V/24V
	Pump tube life	B : 1000h
	Motor life	800h
Reference noise value		In a quiet room with an ambient noise level of 3.5 dB, the product is 50 cm away from the noise tester and the noise level is ≤68dB
Pump Tube Flow	Reference flow rate (unit: ml/min)	
	Pump tube code	B16
	Inner diameter x outer diameter	Metric: 3.2 mm x 6.4 mm Imperial: 1/8 in x 1/4 in
	Pump tube material	BPT
	12V/Current: 0.8A	≥170ml/min
	24V/Current: 0.4A	≥170ml/min
Additional Notes		The above parameters are measured without pressure using pure water at 20°C room temperature and standard atmospheric pressure. In practice, the flow rate will have certain errors depending on the different media, outlet pressure, DC motor speed error, etc. The data is for reference only. In addition, it can be customized according to customer needs ;

### 3. Motor control

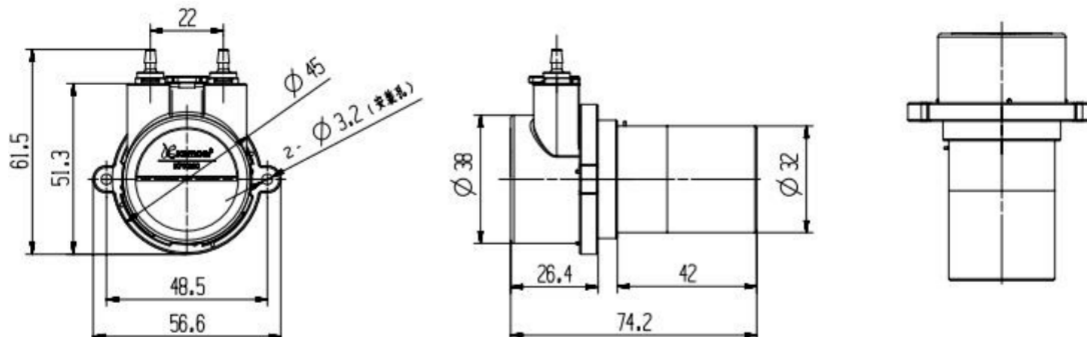


Note: According to the motor wiring diagram, the positive pole of the power supply should be connected to the positive pole and the negative pole should be connected to the negative pole.



## C、DC Brushless Product Specifications

### 1. KPK200 -12B/24B3 B16 product dimensions



### 2. Technical parameters

Item		Technical Parameters
Basic Parameters	Motor Type	Brushless DC Motor
	Flow range	≥150ml/min
	Power	≤10W
	Control method	Switching control/PWM speed regulation
	Weight	Approx. 150 g
	Rated voltage	12V/24V
	Pump tube life	B : 1000h
	Motor life	2000h
	Reference noise value	In a 35dB ambient noise room, the product is 50cm away from the noise tester, and the noise is ≤68dB
Pump tube flow	Reference flow rate (unit: ml/min)	
	Pump tube code	B16
	Inner diameter x outer diameter	Metric: 3.2 mm x 6.4 mm Imperial: 1/8inx1/4in
	Pump tube material	BPT
	12V/Current: 0.8A	≥150ml/min
	24V/Current: 0.4A	≥150ml/min
Additional Notes		The above parameters are measured without pressure using pure water at 20 °C room temperature and standard atmospheric pressure. In practice, the flow rate will have certain errors depending on the different media, outlet pressure, DC motor speed error, etc. The data is for reference only. In addition, it can be customized according to customer needs.





## Brushless motor wiring method

1- The red wire is the positive pole of the power supply, the black wire is the negative pole of the power supply, the white wire is the speed control wire, the yellow wire is the signal feedback wire (for measuring speed), and the green wire is the commutation wire (suspended in the air for reverse rotation, connected to the negative pole of the power supply for forward rotation).

2- Speed regulation port: PWM and 0-5V two speed regulation modes, speed regulation range 11%-100%, PWM frequency 10KHZ-30KHZ; amplitude: 5V, duty cycle 0-10% motor does not rotate, 11%-100% speed regulation range; 0-5V voltage speed regulation, 0-0.5V motor does not rotate, 0.6V-5V speed regulation range.

3- Yellow line speed feedback, connected to oscilloscope probe or host computer. 1 pulse/revolution.

4- Run at full speed, the red and white wires are connected to the positive pole of the power supply, and the black wire is connected to the negative pole

### UL1332 Material:PTFE

5- FG-24AWG-yellow Signal feedback (yellow)

6- Vcc-24AWG-red Power positive pole (red)


7- SP-24AWG-white Speed control port (white)

8- GND-24AWG-black Power negative pole (black)



9- F/R-24AWG-green Reversing port (green)



## D、Adapter Hose

Pump tube material	Characteristic	Standards compliant	Tube No.
BPT tube (B) 	Good resistance to common chemicals, acid and alkali, and oxidation, life span exceeds 1000h	RoHS FDA	16#

## E、Optional Accessories

Name	Product Image	Function Introduction
1/8 straight connector		connectable hose with inner diameter of 2.5 mm - 3.2 mm
1/8 Soft and hard joint		Externally connected to 3.0 mm and 3.2 m outer diameter hard pipe

Special statement: The company reserves the right to improve the product appearance and technical specifications. Any changes will be made without prior notice.

