Precise And Reliable Fluid Transfer

Product Manual

Kamoer Fluid Tech(Shanghai)Co., Ltd.

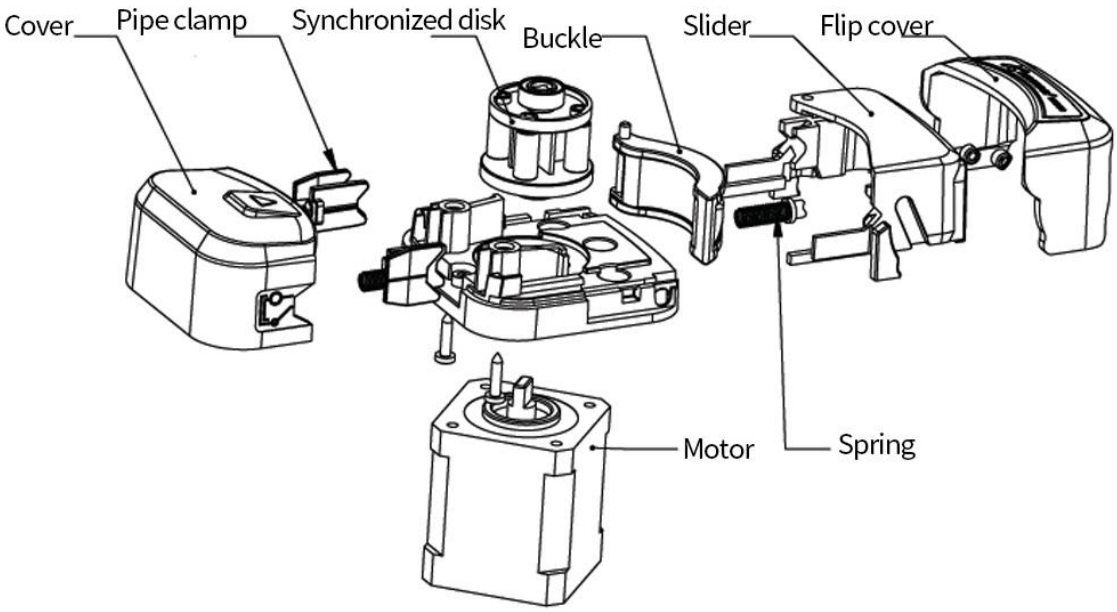
Version: A / 0

Product name	Micro peristaltic pump
Product number	KK300
Execution date	2022.02.28
Manufacturing unit	Kamoer Fluid Tech(Shanghai) Co., Ltd.

一、 Product Overview

1. Product physical map

2. Product assembly drawing



3. Model Interpretation

KK300	ST
Model	Motor model

3.1 Pump head material

Pump head model	Pump cover	Base	Rotor	Synchronized disk
KK300	Polymer Modified Materials	Polymer Modified Materials	PET	Polymer Modified Materials

4. Performance characteristics, typical applications

4.1 Performance characteristics

- Easy to operate, can quickly replace the pump tube;
- PET rotor, deep groove bearing drive long life, imported engineering plastic body;
- High precision, low noise, simple structure, maintenance-free;
- Two pipe clamp positions , which can accommodate 0.8~4.8mm inner diameter silicone tube and 0.8-3.2mm inner diameter BPT tube;
- maximum speed of continuous operation is 400rpm; the flow rate can reach 330ml /min,
- The maximum speed of intermittent operation is 600rpm; the flow rate can reach 485 ml/min;

4.2 Typical applications

Analytical instruments: ion chromatograph, five-category blood analyzer, hypochlorous acid water generator

Detergent delivery: automatic car washing machine

Ion Chromatograph

Automatic car washing machine

Five classification blood analyzer

Hypochlorous acid water generator

5. Intellectual property

CN217481507U

CN307511735S

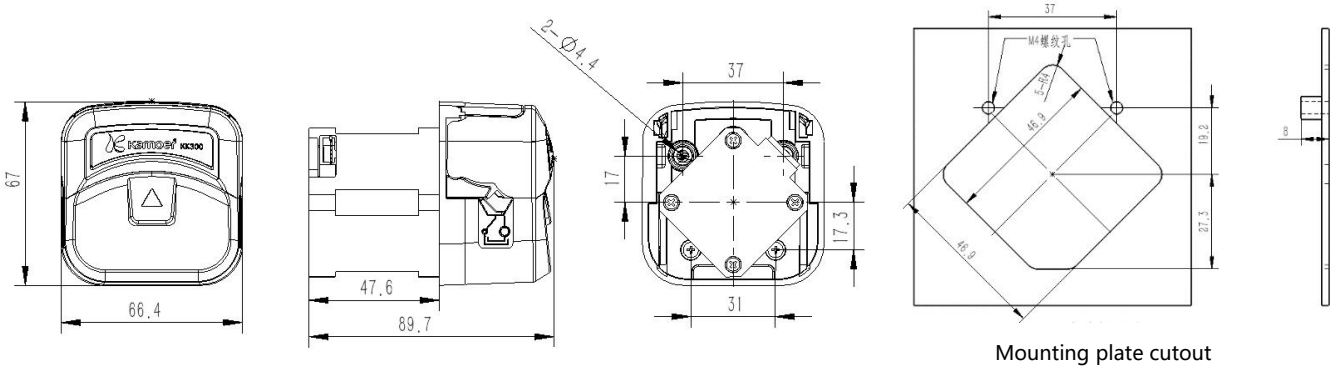
RoHS

CE

二、 Product Specifications

◆ KK300 stepper motor product specification

1. Product Size



Mounting plate cutout

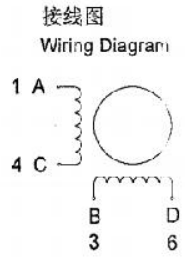
2. Technical parameters

Items		Technical parameters									
Basic parameters	Motor type	Stepper motor									
	Flow range	1- 485 ml/min									
	Noise	≤75dB									
	Power	20W									
	Control method	Stepper driver									
	Weight	About 483 g									
	Rated voltage	24V									
	Pump tube life	S: 200h BPT: 1000h									
	Motor life	6000h									
Pump tube flow	Reference flow (unit: ml/min)										
	Pump tube code	S13	S14	S19	S16	S40	S25	B13	B14	B19	B16
	Inner diameter × outer diameter (mm)	0.8×4	1.6×4.8	2.4×5.6	3.2×6.4	4×7.2	4.8×8	0.8×4	1.6×4.8	2.4×5.6	3.2×6.4
	Pump tube material	Silicone tube						BPT			
	ml/min 400 rpm	1 7	50	105	170	235	315	16	5 4	1 20	190
Precautions	Remark	The above parameters are measured with pure water without pressure at 20°C room temperature and standard atmospheric pressure. Actually, according to different media and different outlet pressures, there will be a certain error in the flow rate. The data is for reference only, and can be customized according to customer needs.									
	Reference noise value	In a quiet room with an ambient noise of 35 dB, the product is 50 cm away from the noise tester , running at 400 rpm , and the noise is 65 dB									

3. Motor parameters

Specifications

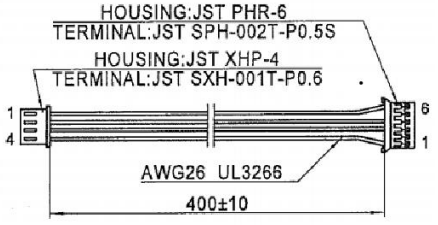
1. Number of Phase	2
2. Step Angle	1.8 °
3. Rated Voltage	3.3V DC
4. Rated Current	1.5Amp
5. Holding torque Holding .Torque	0.66Nm Typ.(Two phsae on/rated current)
6. Phase Resistance	2.2ohm±10%(20°C)
7. Phase Inductance	5.0mH±20%(1kHz 1V rms)
8. Rotor Inertia	82gcm^2
9. Motor Weight	0.36kg
10. Insulation Class	B (130°C)



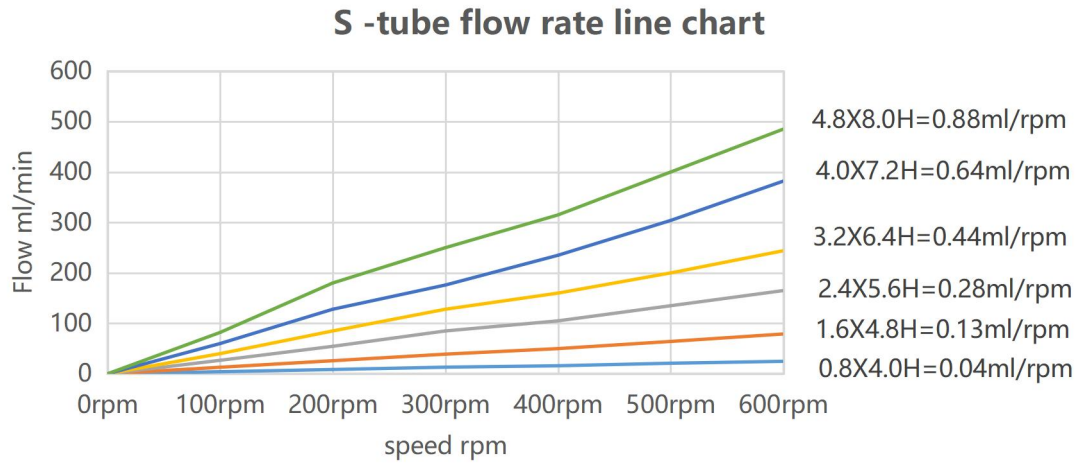
Connector Pin Position vs. Lead Color

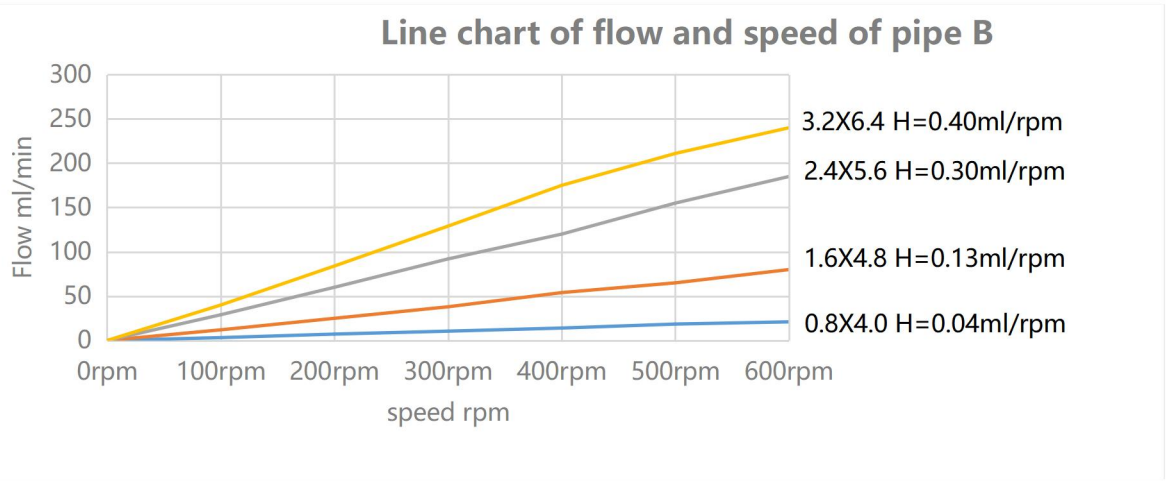
PIN No. vs. Lead Wire Color

RHR-6 PIN No.	XHP-4 PIN No.	Color
1	1	Black
3	3	Red
4	2	Green
6	4	Blue



4. Flow curve





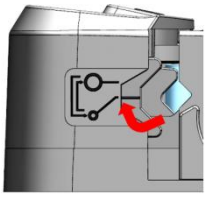
三、 Adapter hose

Pump tube material	Characteristic	Standards compliant	Tube number
Silicone Tube(S)	Low adsorption, good temperature resistance, good chemical corrosion resistance, life expectancy over 200h	RoHS Food Grade Certification (G B4806.11-2016)	13#14#19# 16#40#25#
BPT pipe (B)	Resistance to common chemicals, acid and alkali and oxidation resistance of more than 1000h	RoHS FDA	13#14# 19#16#

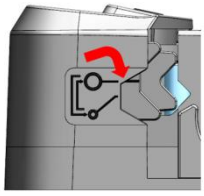
四、 Pipe clamp

◆ Pipe clamp positioning

KK300 can accommodate pump tubes with a wall thickness of 1.6mm and an inner diameter of 0.8mm~4.8mm



Pipe clamp gear 1



Pipe clamp gear 2

must be used for pump tubes with inner diameters of 0.8 and 1.6 to prevent the pump tube from running away;

must be used for pump tubes with inner diameters of 4 and 4.8 to prevent the flow from being reduced due to over - tightening of the pinch tube ;

For pump tubes with inner diameters of 2.4 and 3.2, any gear can be used, and you can refer to Note 1 and Note 2 to choose which gear according to the actual situation;

◆ Gear adaptation

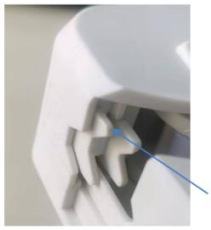
Aperture symbol / Pipe diameter	0.8mm	1.6mm	2.4mm	3.2mm	4mm	4.8mm
o	Be applicable	Be applicable	Be applicable	Be applicable		
O			Be applicable	Be applicable	Be applicable	Be applicable

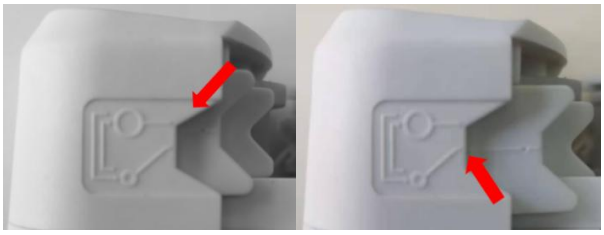
◆ Pipe clamp switch O → o

Before switching the pipe diameter, turn off the pump and open the flip cover to fully open;

Press the pipe clamp to the root by hand , keep the downward force to move the pipe clamp to the second track and release the force;

If the pipe clamp does not slide to the second track, repeat the previous step to ensure that the pipe clamp enters the second track smoothly.





first track second track

small pipe diameter to a large pipe diameter, the previous operation needs to be reversed and repeated.