

Product Manual

Kamoer Fluid Tech(Shanghai) Co., Ltd.

Version: A/1

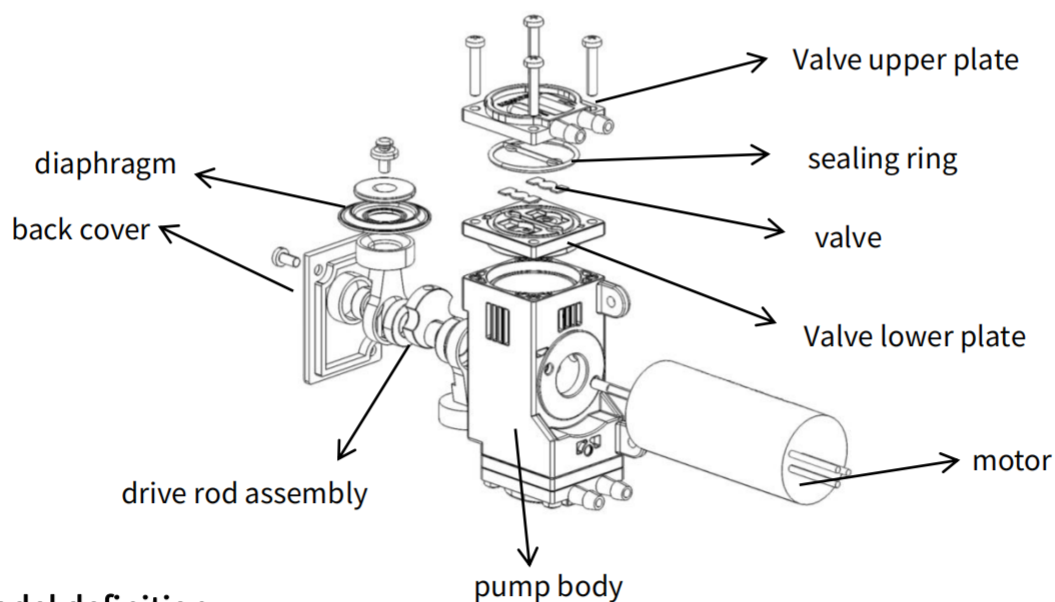
Product name	Mini Diaphragm Air Pump
Product number	KVP8 Plus
Execution date	2022.11.30
Company	Kamoer Fluid Tech(Shanghai) Co., Ltd.

1. Product Overview

1. Product physical picture



2. Product assembly drawing



3. Model definition

KVP8 Plus	KJ	S
Model	Motor type	In series



3.1 Motor type



KJ: 24V DC brushed motor

KK: 12V DC brushed motor



KB: 24V DC brushless motor

KD: 12V DC brushless motor

3.2 Takeover method

S: series connection, constant flow rate, high negative pressure;

" ": without S, parallel connection, constant pressure, high flow rate

4. Performance characteristics, typical applications

4.1 Features

◆KVP8 Plus series diaphragm air pumps are available in 24V and 12V voltage options, customers can choose the appropriate voltage according to their own usage scenarios

◆The product is small in size and powerful

◆Series negative pressure $\leq -0.09\text{Mpa}$, parallel negative pressure $\leq -0.07\text{Mpa}$, gas positive pressure $\geq 0.1\text{MPa}$

◆Dry-running, durable and maintenance-free

◆Chemical stability

◆Flow rate $\geq 11\text{L/min}$

4.2 Typical application

◆Environmental protection industry: such as used as an air pump for gas detection

◆Medical equipment: such as used as an air pump for a rehabilitation instrument

◆Industrial automation: such as the use of negative pressure pumps as suction cups

◆White goods: such as use as a negative pressure pump for a massager



4.3 Known Risk Notification

- ◆The medium will be in contact with the pump head and the rubber, so it is necessary to check the chemical compatibility or conduct an immersion test when selecting the model
- ◆The working environment of the product should not exceed 40°C, and the humidity should not exceed 80% (no condensation). The harsh working environment will cause premature damage to the product
- ◆Frequent start and stop, over pressure or under pressure and other unreasonable working conditions will lead to premature damage of the pump
- ◆High overloading may result in premature failure of the product
- ◆Dust and other pollutants contained in the medium will contaminate the components in the pump and cause premature damage to the pump (please configure a pre-filter)
- ◆This diaphragm air pump cannot work continuously for a long time under the condition of positive pressure > 0.02Mpa, otherwise the product life will be greatly shortened

5. Intellectual property

CN210033803U

CN207161302U

RoHS certification

CE certification



2. Product specification

1. Technical Parameters

Project		KVP8 Plus-KK/KJ	KVP8 Plus-KD/KB	KVP8 Plus-KK/KJ-S	KVP8 Plus-KD/KB-S
Basic parameters	Flow	≥10L/min	≥11L/min	≥6.3L/min	≥6.6L/min
	Negative pressure	≤-0.070MPa		≤-0.090MPa	
	Positive pressure	Positive pressure is not recommended			
	Power	9W			
	Noise	≤74dB		≤72dB	
	Weight	About 238g	About 278g	About 238g	About 278g
	Control method	switch control			
	Rated voltage	KK/KD: 12V KJ/KB: 24V			
	Motor type	DC brush	DC brushless	DC brush	DC brushless
	Product life	≥2000h	≥6000h	≥2000h	≥6000h
Applicable environment		Temperature range: 0°C~40°C; relative humidity: <80% (no condensation)			
Supplementary Note		<p>The test results of the above parameters at standard atmospheric pressure, room temperature 25°C, medium is air, and the pump has no load pressure (the liquid has no drop).</p> <p>Noise test conditions: under the ambient noise of 35dB, under the rated voltage of the product, measured at a distance of 50cm.</p> <p>The performance parameters of the product are affected by the environmental state (air pressure, temperature, humidity, etc.), the medium state (temperature, density, viscosity, and chemical properties, etc.) and the load before and after the pump, so the above parameters may be different from the actual parameters.</p>			

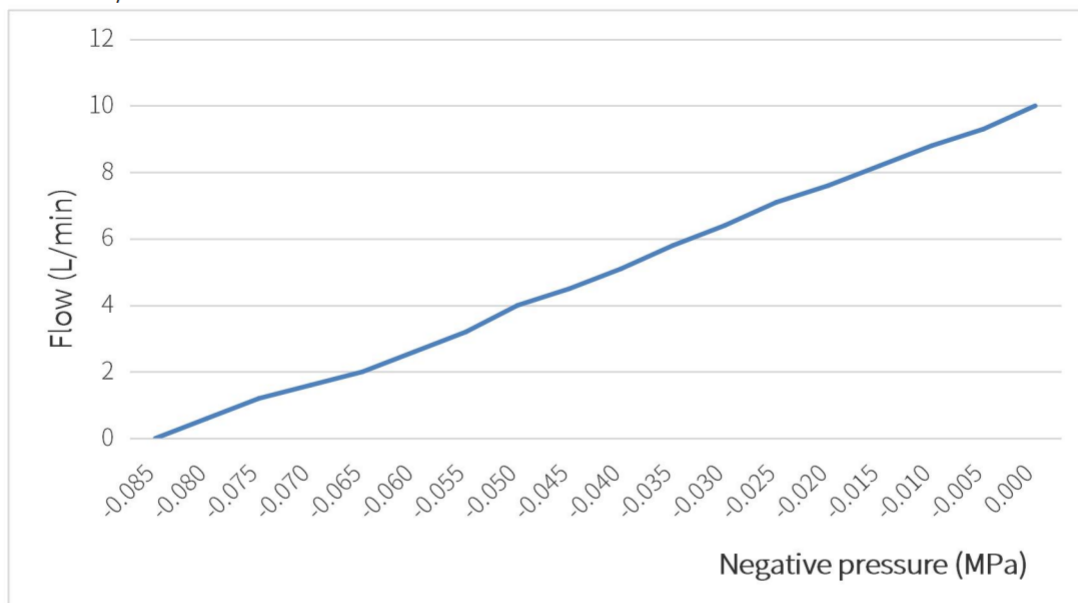
2. Product material

Model	Pump head	Pump body	Diaphragm	Valve	Eccentric wheel
KVP8 Plus	PA	PA	EPDM	EPDM	Metal

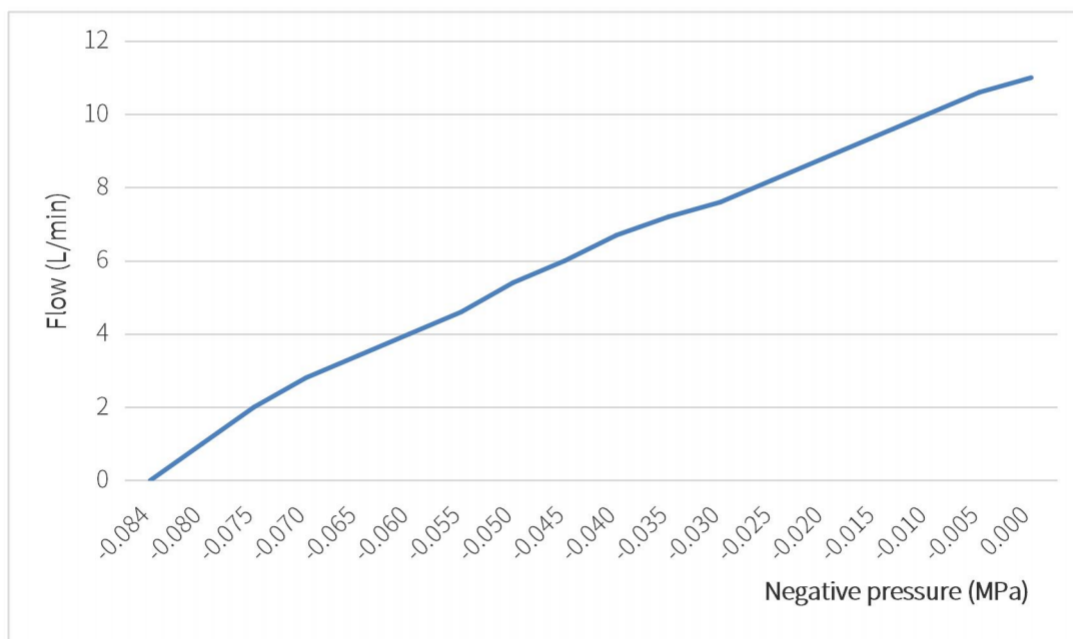


3. Flow curve

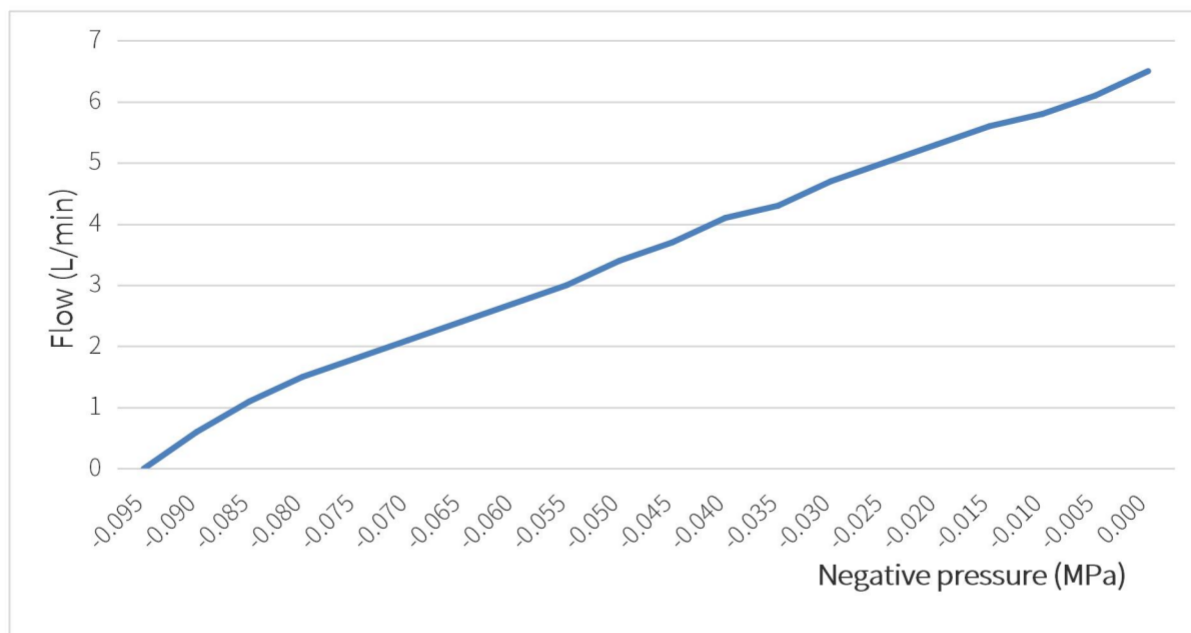
◆KVP8 Plus-KK/KJ



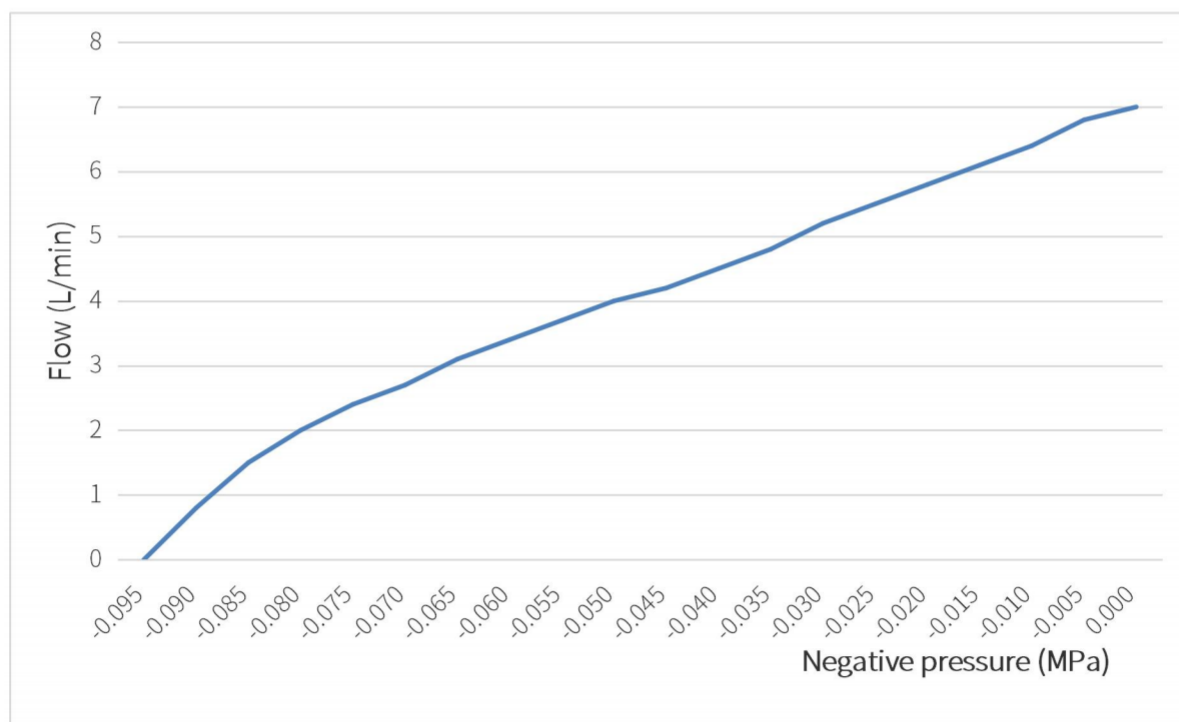
◆KVP8 Plus-KD/KB



◆KVP8 Plus-KK/KJ-S



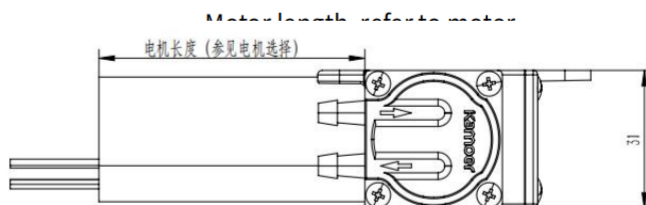
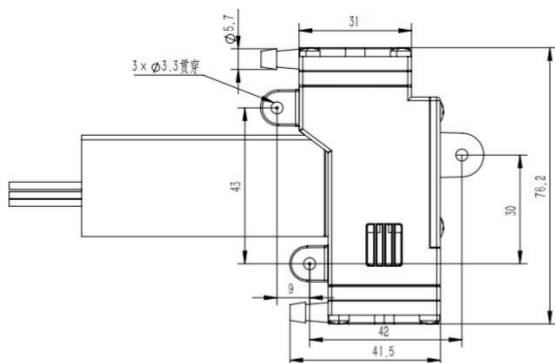
◆KVP8 Plus-KD/KB-S



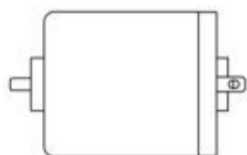
Flow curve is for reference only, and the specific parameters are subject to the actual working condition test.



4. Product Size






5. Motor control



Illustrate: According to the motor wiring diagram, the positive pole of the power supply is connected to “+”, and the negative pole is connected to “-”.

3. Product Options

Name	Specifications		Function introduction
Takeover PU tube		4mm × 6mm	Suitable for gas transmission, economical
Pre-filter		ZFC-100 ZFC-200	Used to filter dust and other pollutants in the medium to prolong the service life
Straight connector		5/32	Suitable for pipeline connection

Special declaration: The company reserves the right to improve the appearance and technical specifications of the product without prior notice.

