8 Series - Date Sheet

Mini Compressor/Air Pump/Vacuum Pump/Piston Pump

Overview: High Efficient, High flow, High Pressure,Low Power

With the further requirements of various industries on the miniaturization of air pumps, vacuum pumps, compressors, non-polluting working medium and other characteristics, small size Compact, oil-free and maintenance-free, low-noise, environmentally friendly and energy-saving micro-miniature class of pumps and compressors have been more and more widely used.

Especially the high flow rate of small compressor technology, requires a strong research and development strength, the BD-08 series developed by Shenzhen Boden Technology Development Co., Ltd. has emerged to make up for the market demand for high flow and small volume.

The basic principle is: through the fixed crank in the cylinder to drive the piston to achieve volume change, that is, the air in the pump cavity Compression and stretching, so as to form high flow vacuum (negative pressure) and positive pressure.

Products:

BD-08AB-S/BD-08VB-S
with Brushless motor

BD-08A-S/BD-08V-S
with Brush motor

BD-08AB-D/BD-08VB-D
with Brushless motor

BD-08A-D/BD-08V-D
with Brush motor

Advantage:

- Compact design-small size and light weight
- DC power-low power
- High torque brushless motor-high flow rate and long life
- Single/Double cylinder piston movement-high pressure
- Aluminum alloy material-High temperature and high pressure resistance
- Multipurpose-can be suction and Inflatable
- Patented product-core competitiveness

Typical Applications:

- Portable Oxygen Concentrator
- Car brake booster
- SCR system
- Spray Booster
- Leak Detector
- Environmental Monitoring Instruments
- Pneumatic device
- Shockwave therapy machine
- Industrial Air Compression & Vacuum Generation

Model:BD-08AB-S/BD-08VB-S

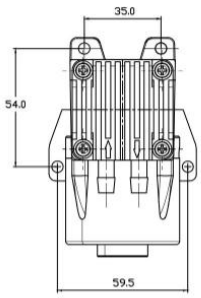
Pneumatic Data	
Maximum Pressure	6 Bar (87psi/0.6Mpa)
Inflatable Flow(@0 bar)	45L/min
Maximum Negative Pressure(Vacuum)	-85 kpa (-637mmHg/-0.085Mpa)
Suction Flow(@0 kpa)	40L/min
Electrical Data	
Motor Type	DC Brushless Motor with PWM
Rated Voltage	**24 V DC**
No-load current	＜3A
Noise from 50cm	62-75dB
Working type	Continuous or Intermittent
Durable time	≥5000hours
Other Data	
OD	Φ8.0 mm
ID	Φ4.0mm
Dimensions	100 x 67.4 x97 mm
Pump Weight	690g
Pump Material	Aluminum alloy
Valve Material	FKM
Operating environment temperature	0-50℃

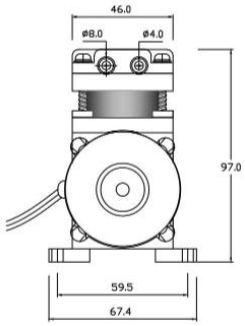
Features

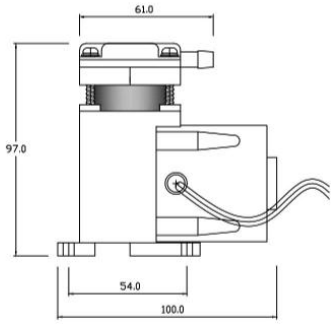
- Compact design-small size and light weight
- DC power-low power
- High torque brushless motor-high flow rate and long life
- Single cylinder piston movement-high pressure
- Aluminum alloy material-High temperature and high pressure resistance
- Multipurpose-can be suction and Inflatable
- Patented product-core competitiveness

Dimensional Outline Drawing

(unit:mm)







Sample Accessories

Control boards, test tubes, mufflers, hardware

Model:BD-08A-S/BD-08V-S

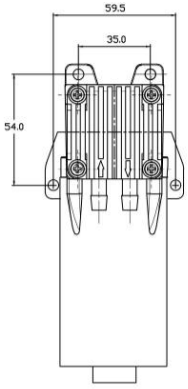
Pneumatic Data	
Maximum Pressure	6 Bar (87psi/0.6Mpa)
Inflatable Flow(@0 bar)	45L/min
Maximum Negative Pressure(Vacuum)	-85 kpa (-637mmHg/-0.085Mpa)
Suction Flow(@0 kpa)	40L/min
Electrical Data	
Motor Type	DC Brush Motor
Rated Voltage	**24 V DC**
No-load current	＜3A
Noise from 50cm	62-75dB
Working type	Intermittent
Durable time	⩾1000hours
Other Data	
OD	Φ8.0 mm
ID	Φ4.0mm
Dimensions	145 x 67.4 x97 mm
Pump Weight	1 kg
Pump Material	Aluminum alloy
Valve Material	FKM
Operating environment temperature	0-50℃

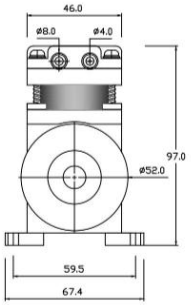
Features

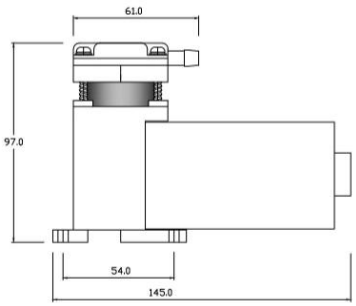
- Compact design-small size and light weight
- DC power-low power
- High torque brush motor-high flow rate
- Single cylinder piston movement-high pressure
- Aluminum alloy material-High temperature and high pressure resistance
- Multipurpose-can be suction and Inflatable
- Patented product-core competitiveness

Dimensional Outline Drawing

(unit:mm)





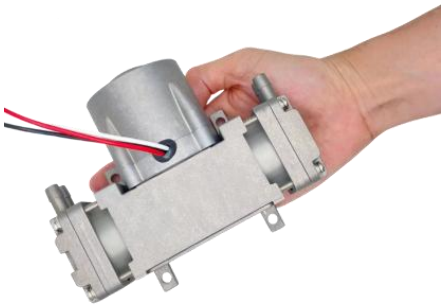


Sample Accessories

test tubes, mufflers, hardware

Model:BD-08AB-D/BD-08VB-D

Pneumatic Data	
Maximum Pressure	7 Bar (100psi/0.7Mpa)
Inflatable Flow(@0 bar)	80L/min
Maximum Negative Pressure(Vacuum)	-85 kpa (-637mmHg/-0.085Mpa)
Suction Flow(@0 kpa)	70L/min
Electrical Data	
Motor Type	DC Brushless Motor with PWM
Rated Voltage	**24 V DC**
No-load current	＜4.5A
Noise from 50cm	62-75dB
Working type	Continuous or Intermittent
Durable time	⩾5000hours
Other Data	
OD	Φ8.0 mm
ID	Φ4.0mm
Dimensions	131 x 64 x 106.5 mm
Pump Weight	803g
Pump Material	Aluminum alloy
Valve Material	FKM
Operating environment temperature	0-50℃

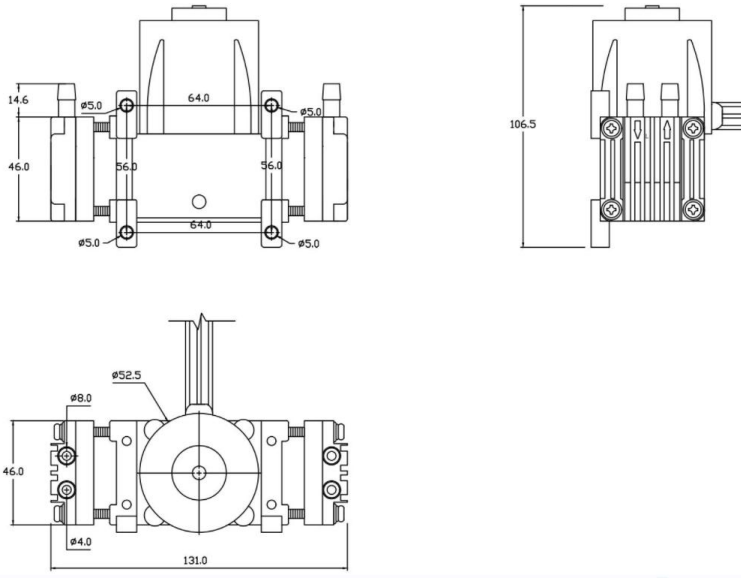


Features

- Compact design-small size and light weight
- DC power-low power
- High torque brushless motor-high flow rate and long life
- Double cylinder piston movement-high pressure
- Aluminum alloy material-High temperature and high pressure resistance
- Multipurpose-can be suction and Inflatable
- Patented product-core competitiveness

Dimensional Outline Drawing

(unit:mm)



Sample Accessories

Control boards, test tubes, mufflers, hardware

Model:BD-08A-D/BD-08V-D

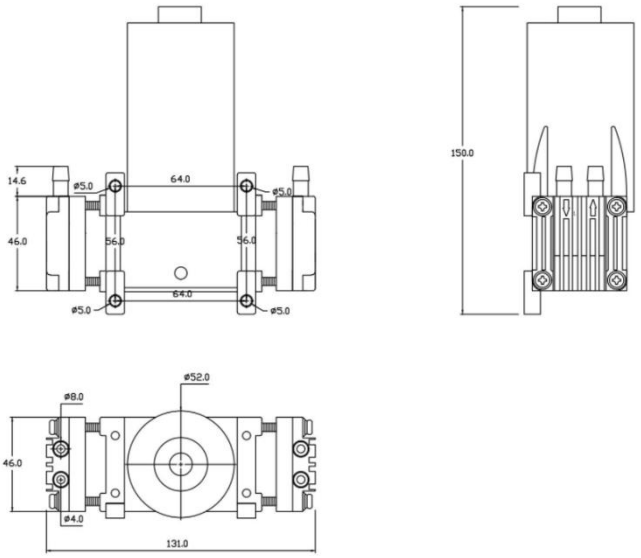
Pneumatic Data	
Maximum Pressure	7 Bar (100psi/0.7Mpa)
Inflatable Flow(@0 bar)	80L/min
Maximum Negative Pressure(Vacuum)	-85 kpa (-637mmHg/-0.085Mpa)
Suction Flow(@0 kpa)	70L/min
Electrical Data	
Motor Type	DC Brush Motor
Rated Voltage	**24 V DC**
No-load current	＜5A
Noise from 50cm	62-75dB
Working type	Intermittent
Durable time	⩾1000hours
Other Data	
OD	Φ8.0 mm
ID	Φ4.0mm
Dimensions	131 x 52 x 150 mm
Pump Weight	1.18kg
Pump Material	Aluminum alloy
Valve Material	FKM
Operating environment temperature	0-50℃

Features

- Compact design-small size and light weight
- DC power-low power
- High torque brush motor-high flow rate
- Double cylinder piston movement-high pressure
- Aluminum alloy material-High temperature and high pressure resistance
- Multipurpose-can be suction and Inflatable
- Patented product-core competitiveness

Dimensional Outline Drawing

(unit:mm)



Sample Accessories

test tubes, mufflers, hardware

Usage and Attention

1.Power supply: The starting current is recommended to be ≥20A, otherwise it cannot be started or is unstable.

2. Brushless version-Red wire: Positive pole; Black wire:negative pole; Green wire :PWM speed control.

3.Brush version-Red wire: Positive pole; Blue wire:negative pole.

4.Brushless version-PWM input value:①PWM frequency: 1KHz-5KHz, the motor driver board can automatically identify, the main control board can choose a fixed frequency in this range. Recommended to use 1KHz (most commonly used).

②PWM amplitude: 5V, or no amplitude (OC gate output, note that the duty cycle logic is opposite).

③PWM duty cycle: active high. 17% duty cycle - start, 5% duty cycle - stop, 100% duty cycle - corresponding to the highest speed

5.Brushless version- Expected lifetime: approx 5000 hours with continuous running under condition of rated voltage and normal temperature (25℃), it is recommended to work continuously for no more than 4 hours each time.

6.Brush version- Expected lifetime: approx 1000 hours with continuous running under condition of rated voltage and normal temperature (25℃), it is recommended to work continuously for no more than 0.5 hours each time..

7. Please do not exceed the maximum specifications required , Otherwise we don't guarantee the product.

8. This product does not guarantee lifetime and defective products due to get into of dust, water droplets, bugs.

9. Do not use in the combustible gas and any harmful environment, in order to avoid to cause the product performance unstable.

10.When the motor in operation, Please do not attempt to lock the motor especially for long time, if so, it will occur to stop turning continuously, produce high heat and burn out motor.

11. Impurities in prohibited from entering the motor and water droplets, In order to avoid to cause product performance unstable and damage products.

12. This product is a precision products, forbid to knock, squeeze and heavy shaking on transportation and installation, so as not to affect the performance of the product.

13.If want to change any specifications, please put forward demand in advance.

14. If have any information or documents different with this document, this document is as the main reference.