

BD - 05TF Series - Micro Diaphragm Gas-Liquid Pump

Model:BD-05TF450WBD

Performance Data	
Model	BD-05TF450WBD
Voltage Option	12V/24V
Free Water Flow	450mL/min
Max Water Pressure	2.5bar
Water Pressure Head	>15m
Water Suction Head	7m
Free Gas Flow	3.5L/min
Max Gas Pressure	1bar
Max Gas Vacuum	-60kPa
Motor Data	
Motor Type	DC Brushless Motor
Load Current	0.5A/0.3A
Physical Properties	
Ambient Temperature	5℃~40℃
Fluid Temperature	10℃~60℃
Material/Other	
Hose Suggest	ID4mm, OD6mm
Head of pump	PA66
Diaphragm	PTFE
Valve	FPM
Noise	55dB
Lifetime	10000H
Dimension	68.2xR27x75.6mm
Weight	280g

Installation & Usage Notes

- 1.Install a filter with a minimum filtration accuracy of $\leq 30 \mu\text{m}$ at the pump inlet to prevent particle ingress
- 2.Install and secure the pump using the base 2 × M3 threaded mounting holes.
- 3.Wiring Definition: Red wire (+) positive, black wire (–) negative, blue wire 0–5V PWM (speed control), and yellow wire FG (frequency/speed output).



Features

Oil-free, self-priming, gas-liquid compatible, low noise, dry-running capable, compact size, low vibration, long service life.

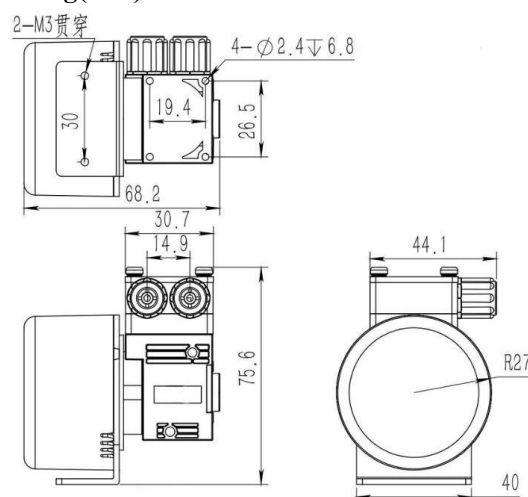
Principle

Driven by a motor, the diaphragm reciprocates to create suction and discharge cycles through check valves for stable gas and liquid transfer. Chemical resistance.

Chemical Resistance

Customizable PPS pump head, PTFE diaphragm, and FPM valves provide excellent resistance to corrosive gases and liquids.

Drawing(mm)



Application Fields

Digital printing equipment
 Biochemical analyzers
 Microplate washing equipment
 Chemical analysis systems
 Liquid sampling devices
 Cleaning & Disinfection