

D30 Flow Control

Micro Vacuum Pump & Compressor



Datasheet



Highlights

- High-efficiency vacuuming & compression
- Modular replaceable connectors
- Low electromagnetic interference
- Speed control by PWM signal
- Long service life under max load
- Driven by high quality motors
- Excellent corrosion resistance
- Industrial-grade reliability
- Good air tightness
- Compact size

Applications

- Gas sampling
- Medical equipment
- Analytical instruments
- Portable device

10K hours
lifetime test

PERFORMANCE DATA

Model	Voltage (V DC)	Max. Load Current (mA)	Max. Peak Flow rate (L/min)	Max. Average Flow rate (L/min)	Max. Vacuum (-kPa)	Max. Pressure (kPa)	Weight (g)
ES Material	Motor: Standard BLDC Diaphragm:EPDM Valves:EPDM Pump Head: PA6						
D30VS-BL	12	≤0.5	≥5.5	≥3.5	≥91	Max.50	295
	24	≤0.3	≥5.5	≥3.5	≥91	Max.50	295
D30PS-BL	12	≤0.7	≥5.5	≥3.5	≥70	≥250	300
	24	≤0.4	≥5.5	≥3.5	≥70	≥250	300
PV Material	Motor: Brush DC Diaphragm:EPDM Valves:EPDM Pump Head: PA6						
D30VS-BL	12						
	24						

CONFIGURATION OPTIONS

Material Options	ES	PV
Pump Head	PPS	PVDF
Diaphragm	EPDM	PTFE
Seals	EPDM	PTFE
Valves	EPDM	PTFE
Motor Options	BL:BLDC	
Voltage	12V/24V	
Connector Options	Default H4 hose connector	
	Optional Rp1/8 internal threads, NPSC1/8 internal threads, PC6 push-in connector	

RELIABILITY DATA

Models	D30	
Versions	Standard with BL Motor	
Fully Loaded Lifetime (hrs)	8000*	
Unloaded Lifetime (hrs)	10000*	
Motor Lifetime (hrs)	12000*	
Test conditions	Fully-loaded lifetime: Pumps are fully loaded under rated voltage ,the inlet or outlet is completely blocked and subjected to maximum pressure load, with the opposite end directly exposed to the atmosphere.; the fully-loaded lifetime represents the continuous operating life under the most extreme and harsh working conditions. When the actual working condition is intermittent use or the working pressure is lower than the maximum rated pressure, the product lifetime will approach the unloaded lifetime;	
	Unloaded lifetime: Both the inlet and the outlet of the pump are connected to the atmosphere, and the pump operates continuously for 7*24 hours without stopping;	
	Motor lifetime: The motors run continuously for 7*24 hours without load under good ventilation and heat dissipation conditions;	
Working Condition		
Operating temperature	Permissible ambient temperature is 0°C~50°C, it is not suitable to be exposed to the sun, and it should work in a clean and ventilated environment	
Medium	Permissible temperature of the medium is 5°C~50°C, the transferring gas is allowed to be rich in water vapor, but cannot contain solid particles	
Wetted materials	ES material includes EPDM and PPS, tolerance to alcohol, acid, alkali, etc. (except strong acid, concentrated acid, lipids, benzene, gasoline, etc.) PV material contains only PTFE and PVDF, and can withstand most aggressive media with excellent corrosion resistance.	

ACCESSORIES		
Descriptions	Illustration	Function
Shock-isolation mounting feet		Reduce the impact of vibration on the equipment during the operation of the pump. This accessory comes with the pump*4
Filter		The 80-mesh filter protect both pumps and other upstream instrumentation and hydraulic circuits against particulate, crystals and fibers . It is recommended to replace it regularly. This accessory comes with the pump*1
Check valve		Enhance the cut-off capability of the gas circuit system to ensure one-way gas flow. This accessory can be purchased on demand
Flow stabilizer		Eliminate and reduce pulsation, make gas output smooth and stable, this accessory can be purchased on demand
Manual control valve		It can be used to manually adjust the gas flow rate, pressure and vacuum. This accessory can be purchased on demand
DC power adapter		220V AC to DC switching power supply, this accessory can be purchased on demand
Silencer		It is used to eliminate and reduce the airflow noise caused by pumping operation, this accessory can be purchased on demand



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