D50TS Flow Control



High Air Tightness Micro Diaphragm Pump

Datasheet





Highlights

- Designed for high air tightness
- Analytical grade leakage rate
- Long service life under max load
- Fully covered high sealing diaphragm
- Connector options optimized for sealing
- Low leakage rate
- Industrial-grade reliability
- SUS304 pump head
- Low EMC interference
- Compact size

Applications

- Gas sampling
- Medical equipment
- Analytical instruments
- Pneumatic automation

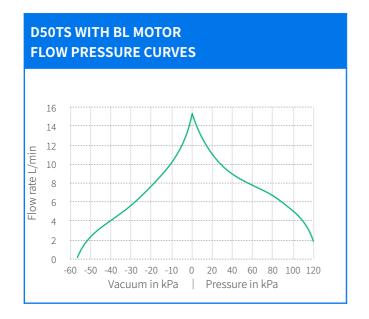
8K hours lifetime test

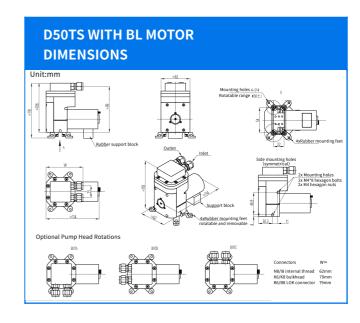
PERFORMANCE DATA							
Model	Voltage (V DC)	Max. Load Current (mA)	Max. Peak Flow rate (L/min)	Max. Average Flow rate (L/min)	Max. Vacuum (-kPa)	Max. Pressure (kPa)	Weight (kg)
Material Option EG	Diaphragm:EPDM Valves:EPDM. Seals: EPDM Pump Head:Stainless steel						
D50TS-BL	12V	1.6	20	14	50	115	1.08
	24V	0.8	20	14	50	115	1.08
	Note: Peak flow refers to the flow value measured by the rotor flowmeter, and average flow rate refers to the						

Note: Peak flow refers to the flow value measured by the rotor flowmeter, and average flow rate refers to the value measured by the soap film flowmeter. The above data are all measured at 101.3kPa standard atmospheric pressure and rated voltage.

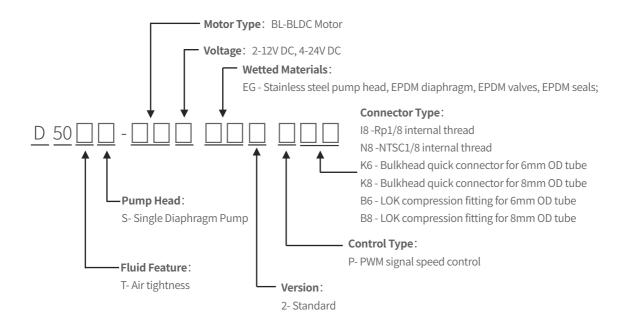
CONFIGRATION OPTIONS					
Material Options	Pump Head	Diaphragm	Valves	Seals	
EG Combination	Stainless steel	EPDM	EPDM	EPDM	
Motor Options	BLDC				
Voltage	12/24V DC	12/24V DC			
Connector Options					
	Default I8 Rp1/8 internal thread connector/K6 bulkhead quick connector/K8 bulkhead quick connector/ B8 LOK compression fitting/ B6 LOK compression fitting				

RELIABILITY DATA						
Models	D50TS					
Versions	Standard with BLDC Motor					
Fully Loaded Lifetime (hrs)	8000*					
Unloaded Lifetime (hrs)	12000*					
Motor Lifetime (hrs)	15000*					
Test conditions	Fully-loaded lifetime: Pumps are fully loaded under rated voltage, the inlet is blocked, and the outlet is directly connected 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 \sim 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 0°C~40°C, the transferring gas is allowed to be rich in water vapor, but cannot contain solid particles					
Wetted materials	HS material combination has good resistance to alcohol, acid, alkali, ozone, etc. (except strong acids, concentrated acids, fats, benzene, gasoline, etc.) PV material combination has excellent corrosion resistance and can be used to extract strong acids, strong alkalis and various corrosive gases					





D50TS MODEL KEY



ACCE	SSORIES	
Descriptions	Illustration	Function
Shock-isolation mounting feet		Reduce the impact of vibration on the equipment during the operation of the pump. This accessory can be purchased on demand
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 can be purchased on demand
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
BLDC speed control module	The state of the s	This module uses open-loop or closed-loop PWM control logic to control the pumping speed through knobs, voltage, Modbus, frequency and other signal protocols.
DC power adapter	(R O 1891	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







To be a driving force in innovation of human fluid technology

Create value for customers by offering high quality fluid solutions

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