

D15TS 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
- Metal pump head
- Low EMC interference
- Compact size

Applications

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

10K hours
lifetime test

PERFORMANCE DATA

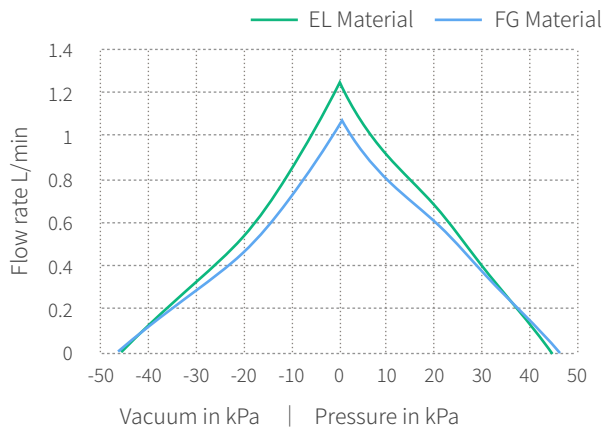
Model	Voltage (V DC)	Max. Load Current (A)	Max. Peak Flow rate (L/min)	Max. Average Flow rate (L/min)	Max. Vacuum (-kPa)	Max. Pressure (kPa)	Weight (g)
EL Combination	Diaphragm:EPDM Valves:EPDM Seals:EPDM Pump head:Aluminum Alloy						
D15TS-BL5	5	≤220	≥1.8	≥1.2	≥40	≥40	68
D15TS-BL2	12	≤90	≥1.8	≥1.2	≥40	≥40	68
D15TS-BL4	24	≤50	≥1.8	≥1.2	≥40	≥40	68
FG Combination	Diaphragm:FKM Valves:FKM Seals:FKM Pump head:Stainless steel						
D15TS-BL5	5	≤240	≥1.7	≥1.0	≥40	≥40	100
D15TS-BL2	12	≤100	≥1.7	≥1.0	≥40	≥40	100
D15TS-BL4	24	≤60	≥1.7	≥1.0	≥40	≥40	100

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.

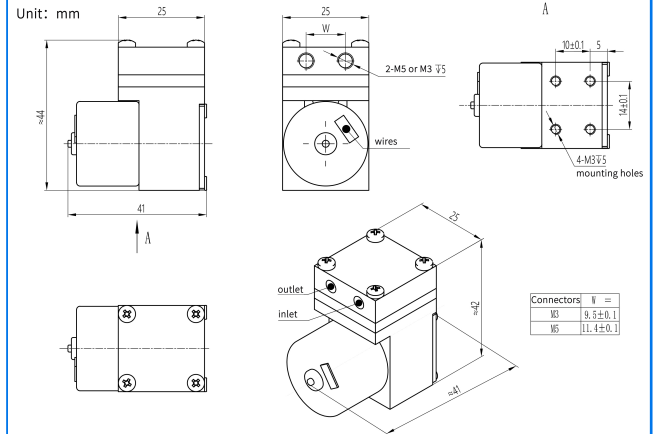
CONFIGURATION OPTIONS			
Material Options	Default EL combination	Optional FG combination	
Pump head	Aluminum alloy	Stainless steel	
Diaphragm	EPDM	FKM	
Valves	EPDM	FKM	
Seals	EPDM	FKM	EPDM
Motor Options	BLDC		
Voltage	12/24V DC	12/24V DC	
Connector Options			
	M3 internal threads/M5 internal threads		

RELIABILITY DATA			
Models	D15TS		
Versions	Standard	Premium	
Fully Loaded Lifetime (hrs)	7500	10000	
Unloaded Lifetime (hrs)	10000	12000	
Motor Lifetime (hrs)	15000	15000	
Test conditions	<p>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;</p> <p>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;</p> <p>Motor lifetime: The motors run continuously for 7*24 hours without load under good ventilation and heat dissipation conditions;</p>		
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 0°C~40°C, the transferring gas is allowed to be rich in water vapor, but cannot contain solid particles		

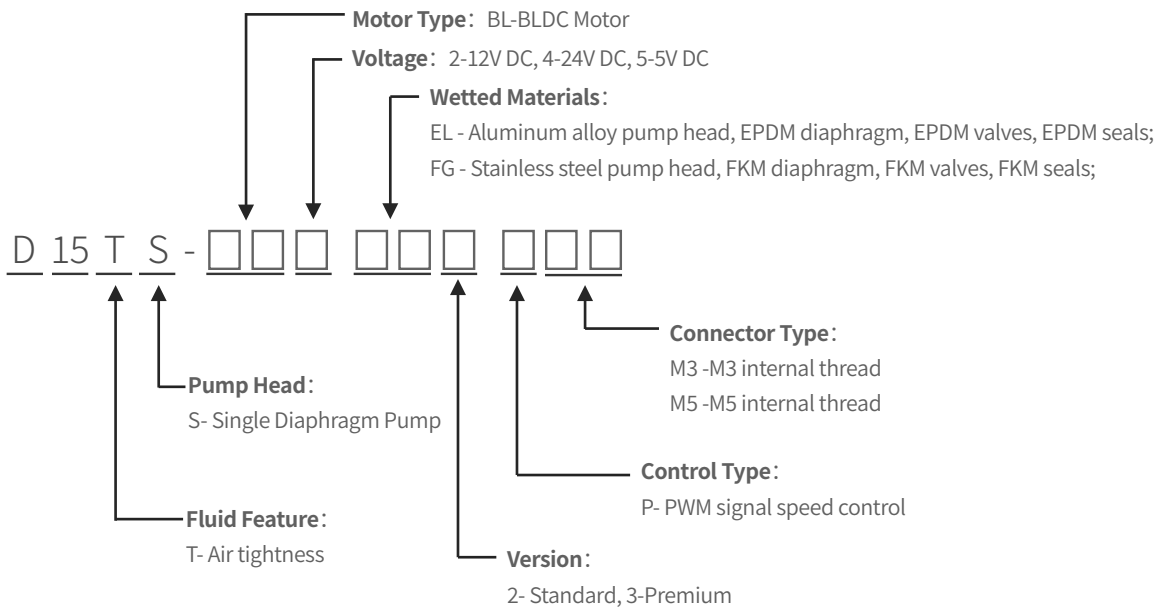
D15TS WITH BL MOTOR FLOW PRESSURE CURVES



D15TS WITH BL MOTOR DIMENSIONS



D15TS MODEL KEY



ACCESSORIES		
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		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		220V AC to DC switching power supply, this accessory can be purchased on demand



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