

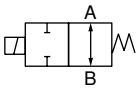
Delay vacuum solenoid valve

HVL12 Series

● Off-delay function solenoid valve

RoHS

JIS symbol



Specifications

1 MPa ≈ 145.0 psi, 1 MPa = 10 bar

Item			HVL12
Working fluid			Air, nitrogen (*1)
Working pressure	Pa(abs)		1.3×10^{-6} to 2.0×10^{5}
Max. working pressure differential	MPa		0.2 (≈29 psi, 2 bar)
Valve seat leakage	Pa·m³/s (He)		1.3×10^{-9} or less
External leakage	Pa·m³/s (He)		1.3×10^{-9} or less
Proof pressure	MPa		0.5 (≈73 psi, 5 bar)
Fluid temperature	°C		5 (41°F) to 50 (122°F)
Ambient temperature	°C		0 (32°F) to 50 (122°F)
Orifice size	mm		1.2
Mounting orientation			Unrestricted
Weight	kg	AC	0.5
(*2)		DC	0.2
Frequency			0.5 times/min. or less
Port size			Rc1/8, 1/4" double barbed fitting, NW10.16 vacuum clamp fitting
Cv			0.05
Max. set delay time			AC: 8 sec, DC: 10 sec (±35%)
Rated voltage			24 VDC, 100 VAC, 200 VAC
Voltage fluctuation range			Rated voltage ±10%
Power consumption	W		4

*1 : Durability may decrease sharply depending on the degree of dryness.
*2 : Weight shown in the table is for port size Rc1/8.
*3 : Do not handle by the lead wire only.
*4 : Always use the M4 screws on the bottom of the case when mounting.
*5 : Do not fix the valve by the port piping only.
Use the valve in a place where vibration does not affect the performance.
*6 : The DC type has polarity. Connect the red lead wire to the plus (+) side and the black to the minus (-) side.

How to order

HVL 1 2 - 4S 6 - 5 - AC100V

- HVL — Model No.
- 4S — Ⓐ Port A connection *1
- 6 — Ⓑ Port B connection *1
- 5 — Ⓒ Voltage
- AC100V

Ⓐ Port A connection *1	
6	Rc1/8
4S	1/4" double barbed fitting
10K	NW10 vacuum clamp fitting
16K	NW16 vacuum clamp fitting

Ⓑ Port B connection *1	
6	Rc1/8

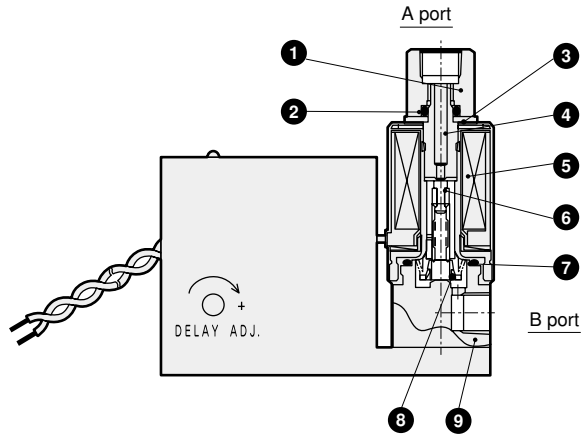
Ⓒ Voltage	
DC24V	24 VDC
AC100V	100 VAC
AC200V	200 VAC

⚠ Precautions for model No. selection

*1: If you order the same model No. of ports A and B, specify only a single model No.
Example: When ports A and B are both Rc1/8
HVL12-6-5-voltage (correct)
HVL12-66-5-voltage (wrong)

Internal structure and parts list

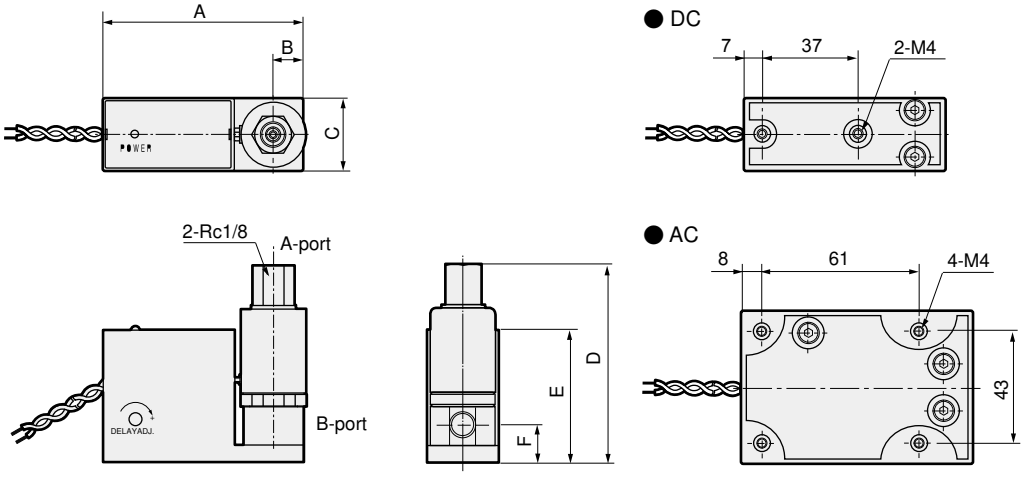
● HVL12-6-5



No.	Part name	Material
1	Socket	SUS303
2	O-ring	FKM
3	Washer	SUS304
4	Core assembly	SUS316L, SUS405
5	Coil assembly	PBT
6	Plunger assembly	SUS405, FKM, PTFE
7	O-ring	FKM
8	Spring	SUS304
9	Body	SUS303

Dimensions

● HVL12-6-5

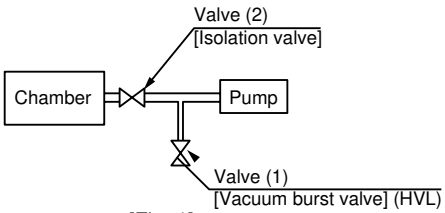


Model No. \ Code	A	B	C	D	E	F
HVL12-DC24V	78	11.5	28	76	51	14.5
HVL12-AC100, 200V	90	11.5	59	76	62	14.5

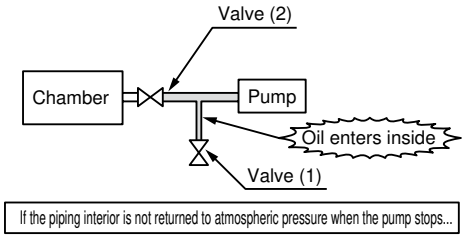
Main applications

Intended use of delay vacuum solenoid valve (HVL Series)

Preventing entry of oil in case of power failure



[Fig. 1]

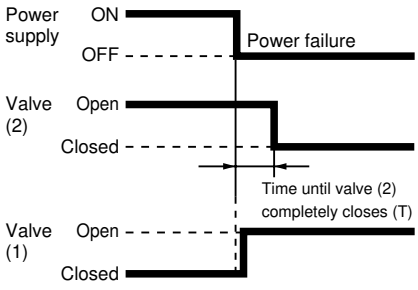


[Fig. 2]

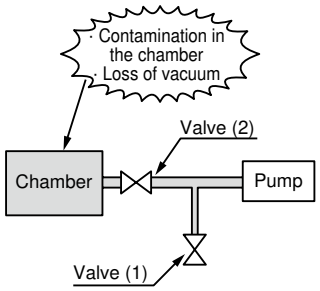
Normally, after the machine has stopped, the pipe between the chamber and pump is released to atmospheric pressure with valve (1) to prevent the oil from rising (from entering the pipes). However, to protect the chamber (to maintain vacuum and prevent contamination), it is necessary to release the pipe to atmospheric pressure after the valve (2) has completely closed.

If valve (1) opens before valve (2) completely closes...

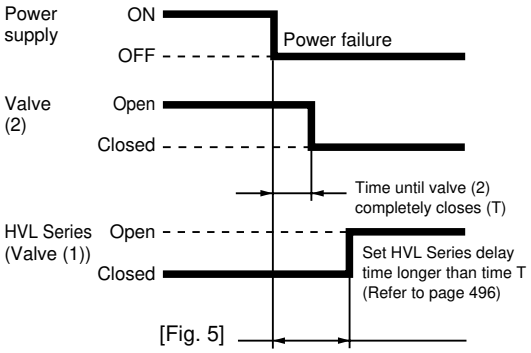
Prevent oil rising and protect the chamber with the HVL Series!!



[Fig. 3]



[Fig. 4]



[Fig. 5]