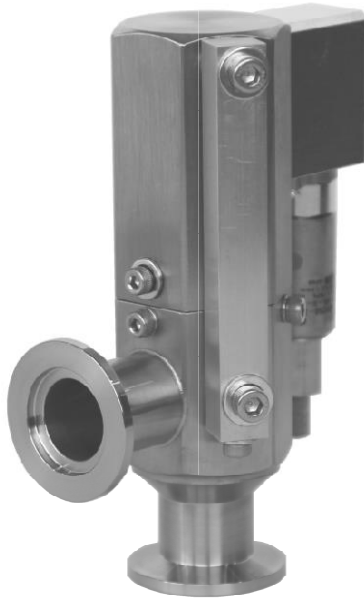


Serves both as cut valve and vent valve!

# Isolate Valves

V-025SV



## ■ Summary

V-025SV isolate valve is to be connected to the inlet of rotary vane pumps.

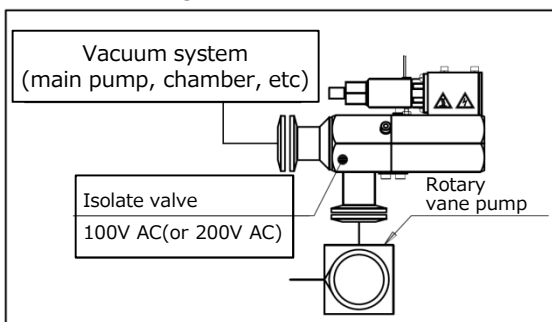
It is an automatic valve equipped with cut valve and vent valve functions and prevents backflow of pump oil due to power outage or improper operation of the vacuum systems.

## ■ Features

1. When the rotary vane pump stops, the vacuum system is automatically cut off (vacuum locked). The pump side is then vented to prevent the pump oil from flowing back into the vacuum system.
2. Since the valve uses the vacuum created by the pump as the drive source, it does not require compressed air or pipes like conventional automated valves. (The valve does not open when the pump is not operating.)
3. This valve does not require any special control circuit. It can be controlled by interlocking the power supply for the built-in solenoid valve with the motor for the pump.

## ■ Pumping system configuration example

The installation direction of the valve is fixed. Please refer to the pumping system configuration example below to correctly connect the rotary vane pump and the vacuum system side connection. If the installation direction is wrong, the valve will not operate. Also, if the valve is not evacuated, the valve will not open even if the solenoid valve of the isolate valve is energized.

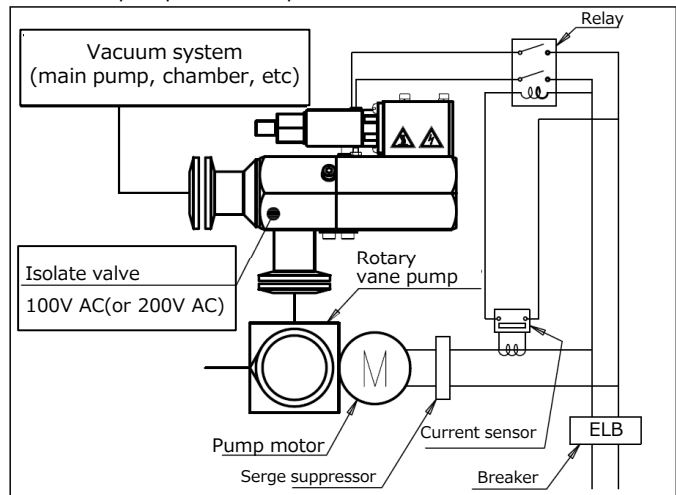


Pumping system configuration example

## ■ Wiring example

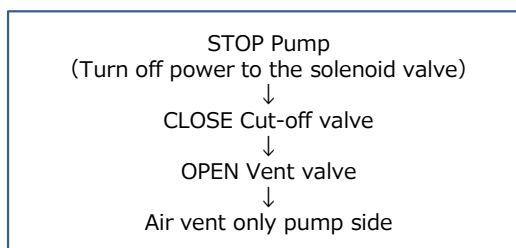
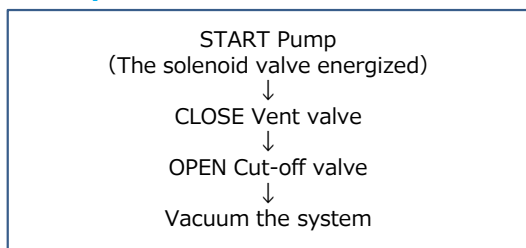
The wiring of the valve should be synchronized with the energizing operation to the rotary vane pump.

The figure below shows an example of a protection circuit when the pump motor stops.



- For protection, please provide a fuse in the electric circuit.
- Please use the valve within the rated voltage range ( $\pm 10\%$ ).
- Please use connectors conforming to the rated voltage wiring of the valve.
- The figure above is an example of a circuit that synchronizes the energizing operation of the valve and the pump and protects the solenoid valve of the isolate valve from the surge voltage generated in the main circuit of the pump motor. If necessary, provide a surge suppressor on the main circuit of the motor to reduce the surge voltage.

## Flow of operation

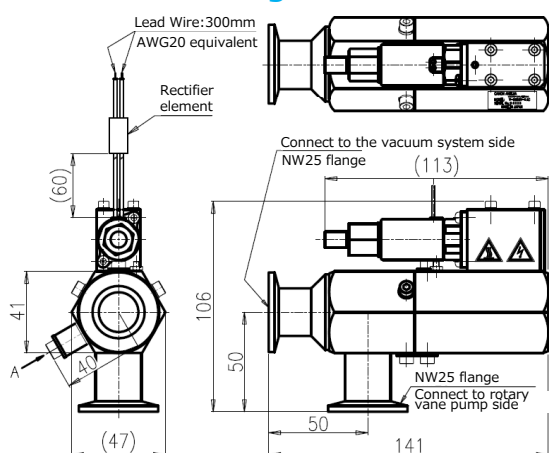


- The cut-off valve and vent valve are built into an isolate valve
- Isolate valve is a valve that opens using the vacuum force of rotary vane pump. Just by energizing the solenoid valve, the isolate valve will not open.

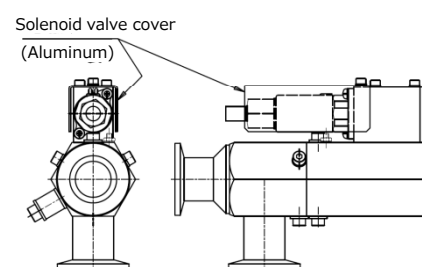
## Specifications

Model	V-025SV-1AC	V-025SV-2AC	
Range of operating pressure	Atmospheric pressure to $10^{-2}$ Pa		
Leak amount	$<5 \times 10^{-7}$ Pa·m <sup>3</sup> /sec		
Conductance	420 L/min (Values for 20°C air in molecular flow range)		
Maintenance interval	30,000 cycles or 1 year		
Main material	Fluoro rubber O-ring : Main seal, bonnet seal, and shaft seal Nitrile rubber : Piston, screw seal 304 stainless steel : Body, valve, spring Aluminum alloy : Base, piston, air pipe Silicon grease : Shaft sealing lubricant		
Connection flange	NW25 flange		
Fluid used	Atmosphere or gas (excluding corrosive gas)		
Usage environment	Ambient temperature 10°C to 40°C		
Solenoid	Rated voltage	100V AC (50/60Hz)	200V AC (50/60Hz)
	Starting current	0.03A	0.015A
	Holding current	0.03A	0.015A
	Power consumption	3W	
	Coil insulation Class	Class B (130°C)	
Dimensions	See the Dimensions diagram.		
Weight	1kg		

## Dimensions diagram



## Option



Solenoid valve will be hot due to continuous energization. If it exceeds 30 ° C, or if necessary, attach a protective cover(option).

## Ordering information

Parts Number	Model	Description	Remark	Code
0190-12616	V-025SV-1AC	Isolate Valve	With NW25 flange,100V AC	31095
0190-12624	V-025SV-2AC	Isolate Valve	With NW25 flange,200V AC	31096
		Solenoid valve cover	Option (require special arrange)	31098

Canon ANELVA Corporation is constantly improving its products, hence specifications are subject to change without notice.

July 2017

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