

Clippard

NPV Series 2-Way Miniature Pinch Valves



- Small, compact design
- Hygienic and easy to clean (replace tubes)
- Low power consumption
- High cycle life
- Can handle whole blood and particulate matter
- Unobstructed flow path
- Each valve comes with 12" of medical/laboratory grade silicone tubing, pre-installed
- Variety of tubing sizes available
- Tubing is easily replaceable

The **Clippard NPV Series Miniature Pinch Valve** is a solenoid-operated device that is designed to open and close tubes for controlling flow of liquids and gases. Other valve types have internal passages that may cause small amounts of fluid to remain in the valve. Pinch valves have no areas or dead volume where fluid can become trapped. Only the inside of the tubing contacts the fluid. Energizing the solenoid retracts or attracts the plunger, which opens or closes the tube. De-energizing the solenoid will allow the plunger to return to its original state.

Common industries that use pinch valves for the benefits of isolating fluid from a mechanical valve include: drug dispensing, laboratory equipment, waste water, medical devices, chemical, food and beverage equipment, ceramic/glass/plastic, and bulk and solids handling.

Specifications:

Valve Type: 2-Way, Normally-Open & Normally-Closed

Medium: Air, water, gas, compatible fluids

Max. Pressure Range: 20 to 30 psig

Power Consumption: 1.0 to 7.2 Watts

Response Time: 5 to 25 milliseconds

Electrical Connections: 18" wire leads

Voltage: 12 or 24 VDC

Mounting: #2-56, #4-40

Wetted Materials: Medical grade silicone tubing

CE, RoHS Compliant

Selection Guide:

1. Choose your required tubing size.
2. Choose your flow configuration (NO or NC).
3. Select your voltage (12 VDC or 24 VDC).

Tubing I.D.	Tubing O.D.	Tubing Wall	Pressure (psig)	Tubing #	Tubing Part Number		Model	Voltage	Amps	Power (Watts)
					5' Roll	50' Roll				
0.030"	0.065"	0.0175"	30	01	SIH1-0201-NAS-005	SIH1-0201-NAS-050	NPV1	12 VDC 24 VDC	0.08 0.04	1.0
1/32"	3/32"	0.0313"	30	02	SIH1-0301-NAS-005	SIH1-0301-NAS-050	NPV2	12 VDC	0.13	1.5
1/16"	1/8"	0.0313"	30	03	SIH1-0402-NAS-005	SIH1-0402-NAS-050		24 VDC	0.06	
1/16"	3/16"	0.0625"	30	04	SIH1-0602-NAS-005	SIH1-0602-NAS-050	NPV3	12 VDC	0.40	4.2
1/8"	1/4"	0.0625"	20	05	SIH1-0804-NAS-005	SIH1-0804-NAS-050		24 VDC	0.18	
3/16"	5/16"	0.0625"	20	06	SIH1-1006-NAS-005	SIH1-1006-NAS-050	NPV4	12 VDC	0.60	7.2
1/4"	3/8"	0.0625"	20	07	SIH1-1208-NAS-005	SIH1-1208-NAS-050		24 VDC	0.30	

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Ordering Information

Tubing Number	Normally-Closed		Normally-Open	
	12 VDC	24 VDC	12 VDC	24 VDC
01	NPV1-1C-01-12	NPV1-1C-01-24	NPV1-1O-01-12	NPV1-1O-01-24
02	NPV2-1C-02-12	NPV2-1C-02-24	NPV2-1O-02-12	NPV2-1O-02-24
03	NPV2-1C-03-12	NPV2-1C-03-24	NPV2-1O-03-12	NPV2-1O-03-24
04	NPV3-1C-04-12	NPV3-1C-04-24	NPV3-1O-04-12	NPV3-1O-04-24
05	NPV3-1C-05-12	NPV3-1C-05-24	NPV3-1O-05-12	NPV3-1O-05-24
06	NPV4-1C-06-12	NPV4-1C-06-24	NPV4-1O-06-12	NPV4-1O-06-24
07	NPV4-1C-07-12	NPV4-1C-07-24	NPV4-1O-07-12	NPV4-1O-07-24

Valve Dimensions

Model	A	B	C	D	E	F	G	Fig.
NPV1-1C	0.750"	1.002"	0.500"	—	0.354"	0.177"	#2-56	1
NPV1-1O		1.125"	0.500"	—	—	—		2
NPV2-1C	1.000"	1.462"	0.486"	0.486"	0.486"	0.243"	#4-40	3
NPV2-1O		1.467"	0.687"	0.687"	0.687"	—		4
NPV3-1C	1.250"	1.847"	0.626"	0.626"	0.626"	0.313"	#4-40	3
NPV3-1O		2.000"	0.884"	0.884"	0.884"	—		4
NPV4-1C	1.500"	2.197"	0.796"	0.796"	0.796"	0.398"	#4-40	3
NPV4-1O		2.350"	1.125"	1.125"	1.125"	—		4

(See Figures 1–4 at right)

Medical/Laboratory Grade Silicone Tubing

Clippard NPV Series Pinch Valves come with 12" of platinum-cured medical/laboratory grade silicone tubing. Tubing is also available separately.

Tubing #	Valve Model	5' Roll	50' Roll
01	NPV1	SIH1-0201-NAS-005	SIH1-0201-NAS-050
02	NPV2	SIH1-0301-NAS-005	SIH1-0301-NAS-050
03	NPV2	SIH1-0402-NAS-005	SIH1-0402-NAS-050
04	NPV3	SIH1-0602-NAS-005	SIH1-0602-NAS-050
05	NPV3	SIH1-0804-NAS-005	SIH1-0804-NAS-050
06	NPV4	SIH1-1006-NAS-005	SIH1-1006-NAS-050
07	NPV4	SIH1-1208-NAS-005	SIH1-1208-NAS-050

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