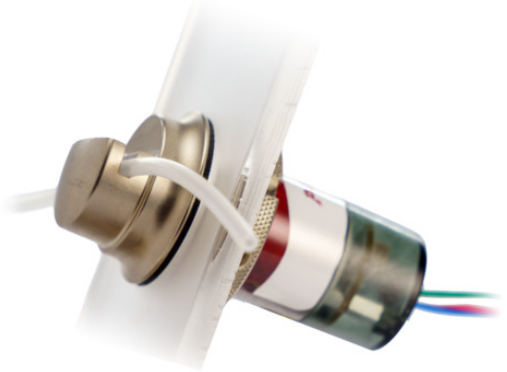
NPV Electronic Pinch Valves

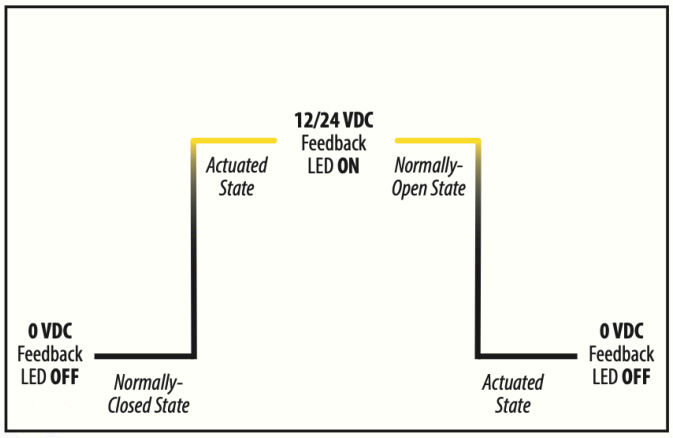
FPV3L-1OP-05-24-2

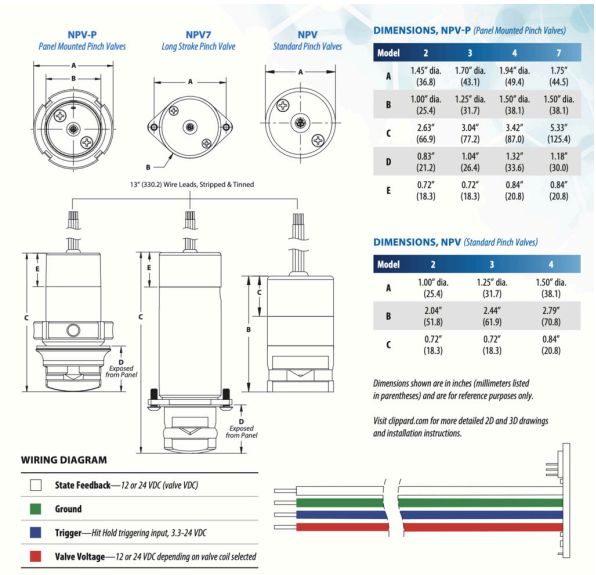


The NPV Series Pinch Valve is a solenoid-operated device that is designed to open and close tubes for controlling flow of liquids and gases. Other valve types have internal passages that may cause small amounts of fluid to remain in the valve. Pinch valves have no areas or dead volume where fluid can 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.

Applications Form	Applications Form
Circuitry Option	State Feedback
Connection	18" (45 cm) Wire Leads
Data Sheet	Data Sheet, Hit & Hold Info, State Feedback Info, Panel Mount Info
Documentation	CE, RoHs (Download)
Function	2-Way Normally-Open (1 Tube)
Material, Tubing	Sanitary Platinum-Cured Silicone
Material, Wetted	Silicone Tubing (no wetted areas in valve)
Max PSI	20 psig (1.4 bar)
Medium	Air, Water, Gas & Compatible Fluids
Mount	Panel
Mounting	#2-56 or #4-40 manifold. M3 also available.
Operating Pressure	0 to 30 psig (0 to 2 bar) with standard medical/lab grade silicone tubing
Operating Temperature Range	-20 to 158°F (-29 to 70°C)
Product Line Brochure	Isolation Valves
Response Time	30 ms
State Feedback Voltage	24
Thread Depth	#4-40 (max. 0.125")
Tubing	1/8" ID-1/4" OD, Medical
Tubing, Durometer Hardness	50 Shore A
Tubing, Elongation at Break	815%
Tubing, Length	Comes with 12" (30 cm) of selected tubing. Additional tubing available separately.
Tubing, Modulus at 200%	299 psi (21 bar)
Tubing, Tear Strength	263 ppi
Tubing, Tensile Strength at Break	1,388 psi (96 bar)
Tubing, Wall Thickness	0.0625" (1.6 mm)
Unit	Imperial
Voltage	24 VDC
Wattage	4.2 Watts
Weight (lbs.)	0.4000

FEEDBACK SIGNAL LEVELS





DIMENSIONS, NPV-P *(Panel Mounted Pinch Valves)*

Model	2	3	4	7
A	1.45" dia. (36.8)	1.70" dia. (43.1)	1.94" dia. (49.4)	1.75" (44.5)
B	1.00" dia. (25.4)	1.25" dia. (31.7)	1.50" dia. (38.1)	1.50" dia. (38.1)
C	2.63" (66.9)	3.04" (77.2)	3.42" (87.0)	5.33" (125.4)
D	0.83" (21.2)	1.04" (26.4)	1.32" (33.6)	1.18" (30.0)
E	0.72" (18.3)	0.72" (18.3)	0.84" (20.8)	0.84" (20.8)

DIMENSIONS, NPV *(Standard Pinch Valves)*

Model	2	3	4
A	1.00" dia. (25.4)	1.25" dia. (31.7)	1.50" dia. (38.1)
B	2.04" (51.8)	2.44" (61.9)	2.79" (70.8)
C	0.72" (18.3)	0.72" (18.3)	0.84" (20.8)

Dimensions shown are in inches (millimeters listed in parentheses) and are for reference purposes only.

Visit clippard.com for more detailed 2D and 3D drawings and installation instructions.

ORDERING INFORMATION

F P V ❑ L - ❑ ❑ - ❑ - ❑ - ❑

Model
- 2 1.00" dia., 1.5 W
- 3 1.25" dia., 4.2 W
- 4 1.50" dia., 7.2 W
- 7 1.50" dia., 72 W

Function
- 1O 2-Way Normally-Open
- 1C 2-Way Normally-Closed

Mount
- (blank) Standard
- P Panel Mount

Refer to NPV data sheet or online configurator for tubing info

Valve Voltage
- 12 12 VDC
- 24 24 VDC

SF Voltage
- 1 12 VDC
- 2 24 VDC

Example Part Number:
FPV2L-1O-03-12-1

For more info, scan the QR code or visit
clippard.com/link/state-feedback