



## NPV Electronic Pinch Valves

### NPV3L-1C-05-12



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.

|                                          |                                                                                                                                           |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Applications Form</b>                 | <a href="#">Applications Form</a>                                                                                                         |
| <b>Circuitry Option</b>                  | Hit & Hold                                                                                                                                |
| <b>Connection</b>                        | 18" (45 cm) Wire Leads                                                                                                                    |
| <b>Data Sheet</b>                        | <a href="#">Data Sheet</a> , <a href="#">Hit &amp; Hold Info</a> , <a href="#">State Feedback Info</a> , <a href="#">Panel Mount Info</a> |
| <b>Documentation</b>                     | CE, RoHs ( <a href="#">Download</a> )                                                                                                     |
| <b>Function</b>                          | 2-Way Normally-Closed (1 Tube)                                                                                                            |
| <b>Hit Time</b>                          | 115 ± 30 ms                                                                                                                               |
| <b>Hold Voltage PWM Freq.</b>            | Approx. 25 kHz                                                                                                                            |
| <b>LED Indicators</b>                    | Power status (green), trigger status (blue), warning (red-indicates for over 3.75 A or short circuit), Feedback Status (yellow)           |
| <b>Life Cycle</b>                        | ±1,000,000                                                                                                                                |
| <b>Material, Tubing</b>                  | Sanitary Platinum-Cured Silicone                                                                                                          |
| <b>Material, Wetted</b>                  | Silicone Tubing (no wetted areas in valve)                                                                                                |
| <b>Max PSI</b>                           | 20 psig (1.4 bar)                                                                                                                         |
| <b>Medium</b>                            | Air, Water, Gas & Compatible Fluids                                                                                                       |
| <b>Mount</b>                             | In-Line                                                                                                                                   |
| <b>Mounting</b>                          | #2-56 or #4-40 manifold. M3 also available.                                                                                               |
| <b>Operating Pressure</b>                | 0 to 30 psig (0 to 2 bar) with standard medical/lab grade silicone tubing                                                                 |
| <b>Operating Temperature Range</b>       | -20 to 158°F (-29 to 70°C)                                                                                                                |
| <b>Product Line Brochure</b>             | <a href="#">Isolation Valves</a>                                                                                                          |
| <b>Response Time</b>                     | 30 ms                                                                                                                                     |
| <b>Thread Depth</b>                      | #4-40 (max. 0.125")                                                                                                                       |
| <b>Trigger Input</b>                     | 3.3 to 24 VDC. 10 mA @ 24 VDC                                                                                                             |
| <b>Tubing</b>                            | 1/8" ID-1/4" OD, Medical                                                                                                                  |
| <b>Tubing, Durometer Hardness</b>        | 50 Shore A                                                                                                                                |
| <b>Tubing, Elongation at Break</b>       | 815%                                                                                                                                      |
| <b>Tubing, Length</b>                    | Comes with 12" (30 cm) of selected tubing. Additional tubing available separately.                                                        |
| <b>Tubing, Modulus at 200%</b>           | 299 psi (21 bar)                                                                                                                          |
| <b>Tubing, Tear Strength</b>             | 263 ppi                                                                                                                                   |
| <b>Tubing, Tensile Strength at Break</b> | 1,388 psi (96 bar)                                                                                                                        |
| <b>Tubing, Wall Thickness</b>            | 0.0625" (1.6 mm)                                                                                                                          |
| <b>Unit</b>                              | Imperial                                                                                                                                  |
| <b>Voltage</b>                           | 12 VDC                                                                                                                                    |
| <b>Wattage</b>                           | 4.2 Watts                                                                                                                                 |
| <b>Weight (lbs.)</b>                     | 0.5000                                                                                                                                    |

