Precision Flow Control Pinch Valve Providing Sanitary Fluid Separation & Flow Metering

Resolution Air, Ltd expands its product portfolio with the addition of the Hybrid Proportional Pinch Valve Series (HPPV-). These valves combine the precise fluid metering abilities of a proportional valve with the sanitary fluid separation characteristics of a pinch valve. This larger valve series utilizes a robust and powerful linear actuator capable of generating 50 lbs. of pinch force ideal for higher pressure systems and tube sizes up to 1.00" O.D.

A primary benefit of proportional pinch valves is automating the metering process of liquids and gases in open and closed loop control systems. In addition, Resolution Air, Ltd valves are also being utilized in applications requiring simple ON/OFF control because they generate significantly higher pinch forces (12x) compared to a traditional solenoid pinch valve. As a result, our valves are quickly replacing traditional low force solenoid pinch valves in many markets including medical device and life sciences, where precise sanitary fluid metering is critical to the application.

Resolution Air, Ltd. Proportional Pinch Valves offer unprecedented system design flexibility through this revolutionary new valve technology. Contact us today to disscuss your application or to order an easy-to-install evaluation kit.



Proportional Pinch Valve Advantages

- Automated control
- No physical contact with process fluid
- High resolution flow control
- Home switch provides digital output for full open position
- Durable construction
- Tested performance
- · High repeatability
- Low power consumption
- No leakage
- Long performance life
- Light weight, low profile design
- Superior corrosion resistance
- Valve body material option: Stainless Steel

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Performance Characteristics

Standard Tube Sizes (O.D.) 1/4", 3/8", 1/2", 3/4", 1.00"

Recommended Tubing Durometer 50-80 Shore A

Max. Temp. 180° F

Motor Type Bi-Polar Stepper Motor

Position Resolution .00048"/step

Power Consumption 5.7 Watts

Motor Supply Voltage 24-40 VDC Unregulated Power Supply

Max. Current/Phase 0.57 Arms

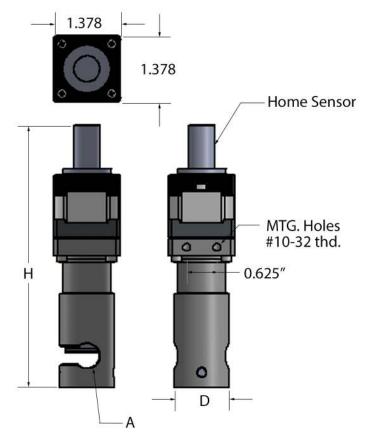
Electrical Connection 12"Wiring Harness (included)

Driver Requirements Bi-Polar Chopper Drive

Home Switch Hall Effect- Full Open Position

Home Switch Supply Voltage 3.8-24 VDC

Max. Pinch Force 50 lbs. @100 steps/sec.



| Valve Model | A Tube Size (O.D.) | H Overall Height | D Overall Valve Diameter | Travel Rate * |
|-------------|------------------------------|----------------------------|------------------------------------|---------------|
| HPPV-4 | .250" | 4.915 | 0.938 | .52 sec. |
| HPPV-6 | .375" | 5.062 | 0.938 | .78 sec. |
| HPPV-8 | .500" | 5.418 | 1.125 | 1.04 sec. |
| HPPV-12 | .750″ | 6.027 | 1.498 | 1.56 sec. |
| HPPV-16 | 1.00" | 6.562 | 1.875 | 2.08 sec. |

^{*} Full open to full close @ 1000 step/sec.

Applications Include

- Chemical Mixing / Dispensing
 - Dosage Systems
- Clinical or Chemical Analysis
 - Vending Machines
 - Blood Handling/Analysis
 - Lab Analysis