



# High Pressure Diaphragm Valve

Our **iPolymer High Pressure Diaphragm Valve (HPV)** is designed for use in high purity water and aggressive chemical applications.

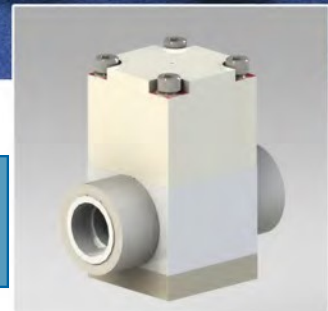
Designed with a 100% virgin PTFE wetted flow path, the unit is ideal for DI Water Systems and corrosive media found in solar, semiconductor, pharmaceutical and chemical process applications.

Offered in 2-Way and 3-Way port configurations, our all wetted PTFE HPV2 and HPV3 diaphragm valves are an excellent complement to our Mini and Submini pneumatic valve families.

The compact design of the iPolymer HPV valve series makes it ideally suited for tight spaces in process cabinets and panels. Multiple HPV units can be rack mounted on a common Polypro base for ease of installation. Contact the factory for manifold applications.



The Actuator Housing options include: Polypropylene ("PP")  
Anodized Aluminum ("AA")



Other sizes and configurations are available on request.

## Specifications:

### Materials of Construction:

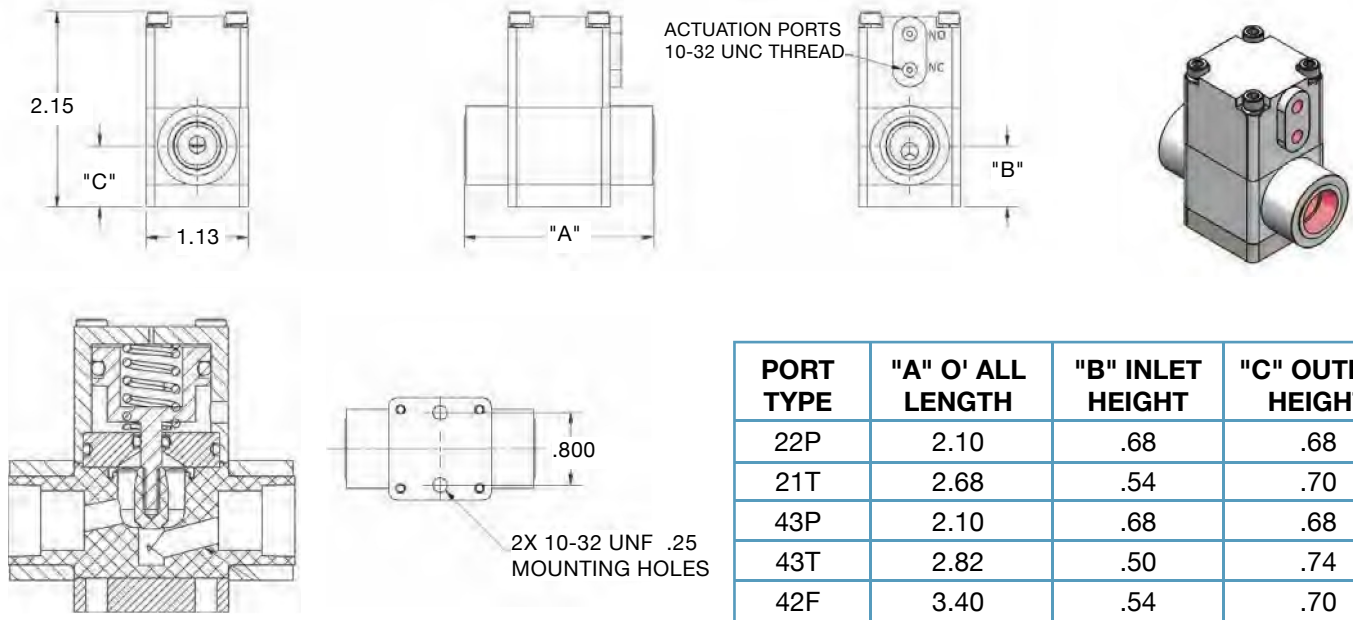
- Wetted Surfaces: Machined 100% Virgin PTFE & M-112
- Non Wetted Materials: PVDF, Polypro, SS, AA

### Temperature Ranges:

- 32°F - 140°F (0°C - 60°C) Ambient
- 32°F - 176°F (0°C - 80°C) Media

### Pressure Ranges:

- Maximum Inlet Pressure: 80 psi (551 kPa | 5.51 bar)
- Maximum Vacuum: 25" Hg
- Consult factory when operating with pressure and/or vacuum applied on multiple ports.
- Pneumatic Actuation:
  - Pressure Range: 50 psi (3.45 bar) to 100 psi (6.89 bar) depending on media pressure conditions
  - Pressure Source: Conditioned Dry Air



## PTFE High Pressure Valve: ORDERING FORMAT

**HPV2 – 42F – NC – PP**

### HP Valve Type

HPV2 = High Pressure Valve 2-Way

### Porting w/ Max Orifice

22P = 1/8" FNPT & 0.125" Orifice  
 21T = 1/8" TUBE & 0.094" Orifice  
 43P = 1/4" FNPT & 0.188" Orifice  
 43T = 1/4" TUBE & 0.188" Orifice  
 42F = 1/4" FLARE & 0.125" Orifice

### Valve Configuration

NC = Normally Closed  
 NO = Normally Opened

### Actuator Housing

AA = Anodized Aluminum  
 PP = Polypropylene

• These valves are configured with their maximum available port orifice for the given port style and size. Call iPolymer for special constrained orifice & other custom solutions.

**HPV3 – 42F – 123 – PP**

### HP Valve Type

HPV3 = High Pressure Valve 3-Way

### Porting w/ Max Orifice

22P = 1/8" FNPT & 0.125" Orifice  
 21T = 1/8" TUBE & 0.094" Orifice  
 43P = 1/4" FNPT & 0.188" Orifice  
 43T = 1/4" TUBE & 0.188" Orifice  
 42F = 1/4" FLARE & 0.125" Orifice

### Port Orientation (3-Way Only)

Looking Down at the Top of the Coil			
123 C NC ● NO	132 C NO ● NC	213 NO NC ● C	321 NC C ● NO
<b>NC-C-NO</b>	<b>NO-C-NC</b>	<b>NC-NO-C</b>	<b>C-NC-NO</b>

### Actuator Housing

AA = Anodized Aluminum  
 PP = Polypropylene

**STD** = 123 & 132 are our standard port arrangements.

### iPolymer Product Notes:

1. Please email Customer Service at info@ipolymer.com
2. Call us for special applications. We can manufacture our Valves with special mounting and interface dimensions.
3. Upon request, alternate material selection from those listed will allow for expanding temperature ratings or other performance characteristics.
4. Unauthorized disassembly of this product will void the original factory one-year product warranty. For further details please contact your local Distributor or our factory directly.

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