



international polymer solutions

Miniature Pneumatic Diaphragm Valves



Our **IPS Miniature Pneumatic Diaphragm Valves** offer precision performance under extreme conditions. Offered as 2-Way and 3-Way Valves with four internal body configurations and three valve seat sealing methods, our IPS Miniature Pneumatic



Diaphragm Valves are suitable for a wide range of ultra clean to highly corrosive media applications. Our all virgin PTFE wetted surface design is ideally suited for semiconductor, pharmaceutical, bio-medical and chemical process applications. Configurable with a PTFE Hard Seat, FKM-Viton O-Ring Seat or FFKM-Kalrez O-Ring Seat the IPS MTV series valve line provides unsurpassed chemical compatibility with a wide range of flow media. The all wetted PTFE body, valve stem and one piece diaphragm maintain a material inert boundary for ultra clean applications.

HIGHLIGHTS:

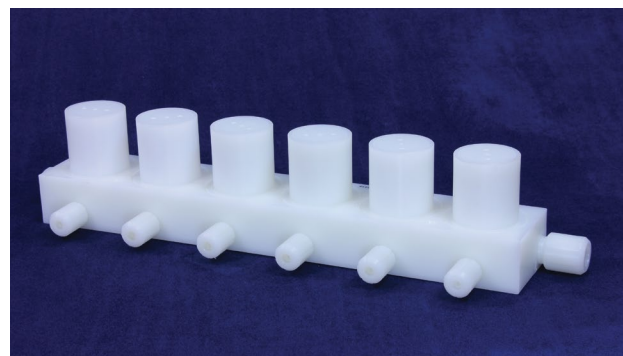
- PTFE design optimized for ultra clean and chemical compatibility.
- Lightweight pneumatic actuator with compact valve design.
- Pneumatic Actuator available in standard Polypro or Hi Temp Configuration.
- The PTFE diaphragm completely isolates the media from the actuator.
- 100% pneumatic driven – does not require power only supply air.
- O-ring seat configurations for vacuum and complex media applications.
- Designed for aggressive media and elevated temperature.

General Valve Parameters	
1/8" Orifice Cv (2-Way / 3-Way)	0.35 / 0.18
1/4" Orifice Cv (2-Way / 3-Way)	0.70 / 0.45
3/8" Orifice Cv (2-Way / 3-Way)	0.90 / 0.60
Common Port Vacuum in-Hg (max)	25
Actuator Pressure (range)	40 - 60 psi
Media Temperature (range)	0 - 100°C / 32 - 212°F
Ambient Temperature (range)	0 - 70°C / 32 - 140°F

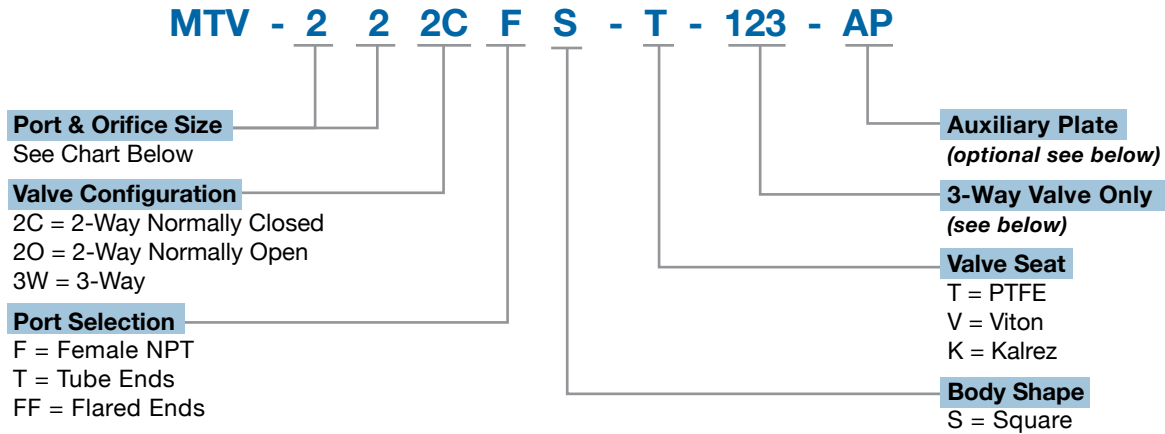
Maximum Port Pressure Rating	3-Way
Common Port	60 psi
Normally Closed Port	30 psi
Normally Open Port	60 psi
	2-Way NC
Inlet Port	60 psi
Outlet Port	30 psi
	2-Way NO
Inlet Port	60 psi
Outlet Port	60 psi

Other Options Available on Request:

- Valves with special port connections such as combinations of pipe, tube and flared ends.
- Valves without mounting studs or valves with 4 mounting studs (2 are standard).
- Manifolder valve assemblies.



Miniature Pneumatic Diaphragm Valves: ORDERING FORMAT



Consult Factory For Custom Configurations.

Porting w/ Max Orifice

PIPE	
22	1/8" FNPT & 0.125" Orifice
44	1/4" FNPT & 0.250" Orifice
66	3/8" FNPT & 0.375" Orifice
86	1/2" FNPT & 0.375" Orifice
TUBE	
21	1/8" TUBE & 0.063" Orifice
43	1/4" TUBE & 0.188" Orifice
65	3/8" TUBE & 0.313" Orifice
86	1/2" TUBE & 0.375" Orifice
FLARE	
42	1/4" FLARE & 0.125" Orifice
64	3/8" FLARE & 0.250" Orifice
86	1/2" FLARE & 0.375" Orifice

Port Arrangements

The port orientation can be arranged in four possible patterns on our 3-Way Solenoid Valves. Please select one of the four arrangements.

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

STD = 132 is our standard Port Arrangement.

Auxiliary Plate ("AP"): For highly corrosive or caustic gas applications, such as Chlorine Gas, our Auxiliary Plate Option ("-AP") give an extra line of protection. The valve is configured with an auxiliary plate between the upper diaphragm and pneumatic actuator. The AP (Auxiliary Plate) is O-Ring sealed on the Stem of the diaphragm and supported at the outer body-to-actuator interface.

Miniature Pneumatic Diaphragm Valve

3/8" 3-Way FNPT



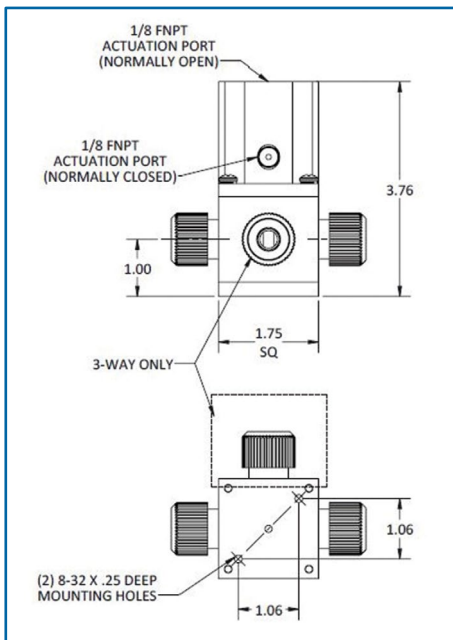
1/4" 3-Way Tube



1/4" 2-Way FNPT



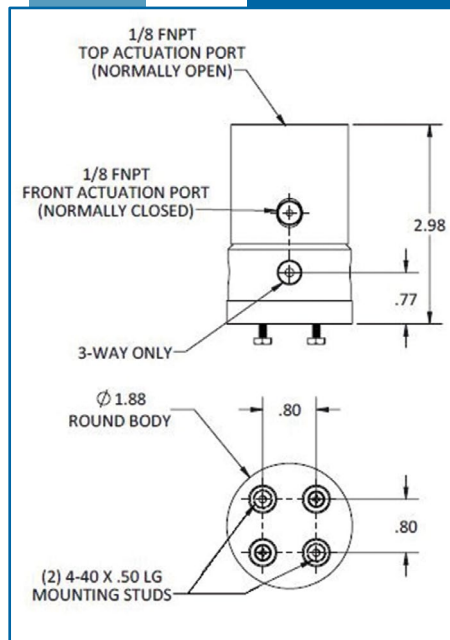
Typical for 3/8" and 1/2" Models



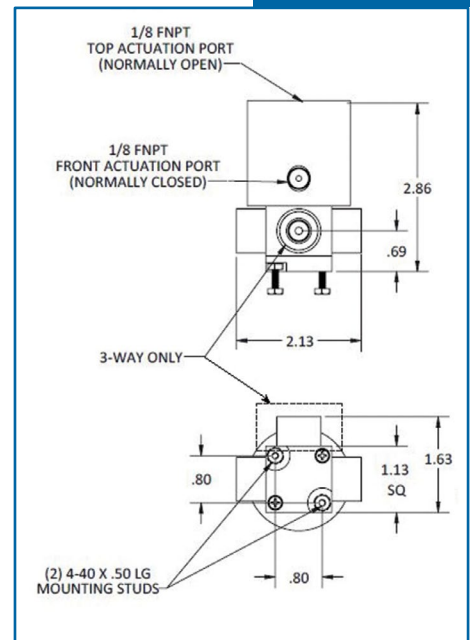
Typical for 1/8" and 1/4" Models

Special

Round Body



Square Body



IPS 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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