

# Pneumatic Valves



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# 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 six 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:

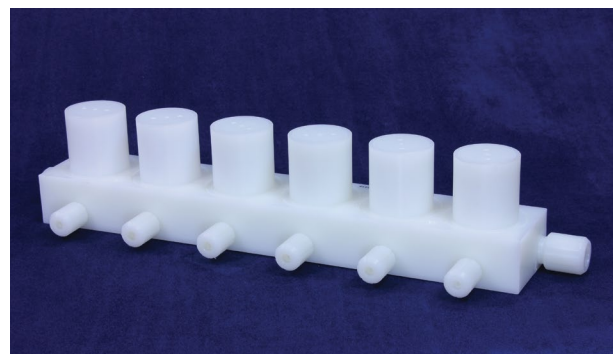
- PTFE design optimized for ultra clean and chemical compatibility.
- Lightweight pneumatic actuator with compact valve design.
- Pneumatic Actuator available in standard Polypro or Hi Temp Configuration.
- The PTFE diaphragm completely isolates the media from the actuator.
- 100% pneumatic driven – 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

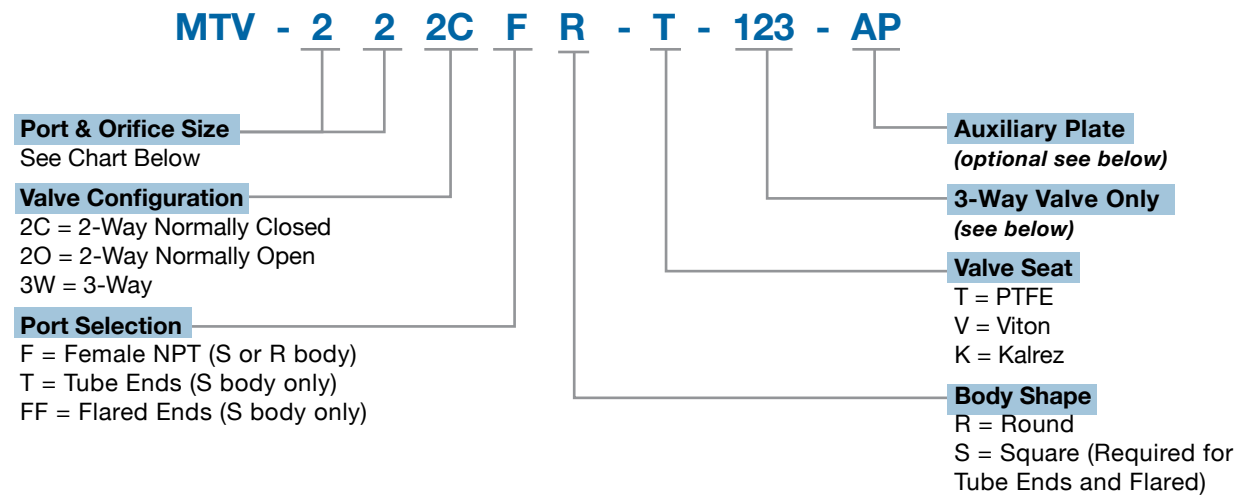
Maximum Port Pressure Rating	3-Way
Common Port	60 psi
Normally Closed Port	30 psi
Normally Open Port	60 psi
	2-Way NC
Inlet Port	60 psi
Outlet Port	30 psi
	2-Way NO
Inlet Port	60 psi
Outlet Port	60 psi

### 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).
- Manifolded 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 six possible patterns on our 3-Way Valves. Please select one of the six arrangements.

Looking Down at the Top of the Coil		
<b>STD</b>		
NC  NO	NO  NC	C  NC
132 C	123 C	213 NO
C  NO	NC  C	NO  C
231 NC	312 NO	321 NC

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



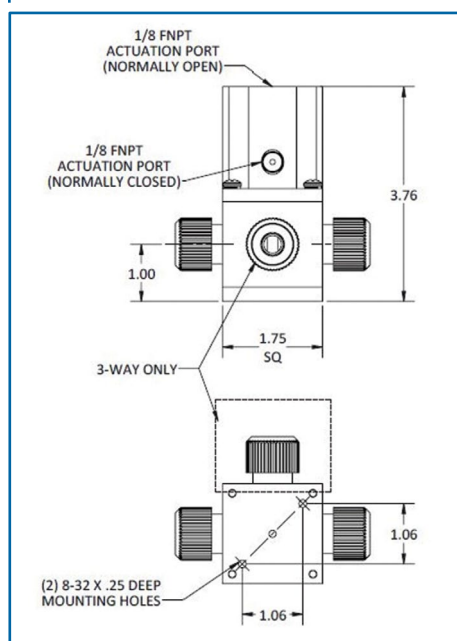
1/4" 3-Way Tube



1/4" 2-Way FNPT

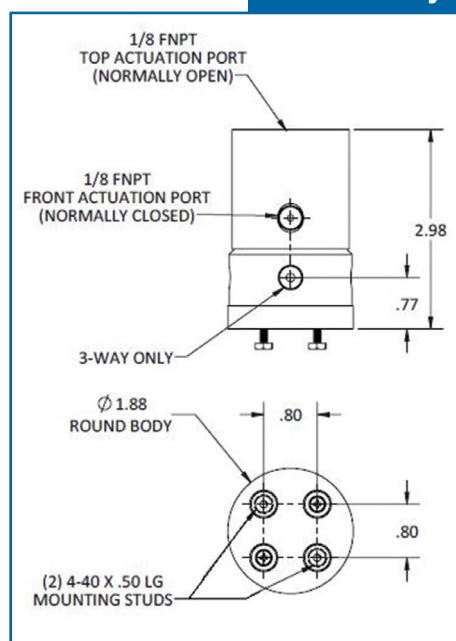


Typical for 3/8" and 1/2" Models

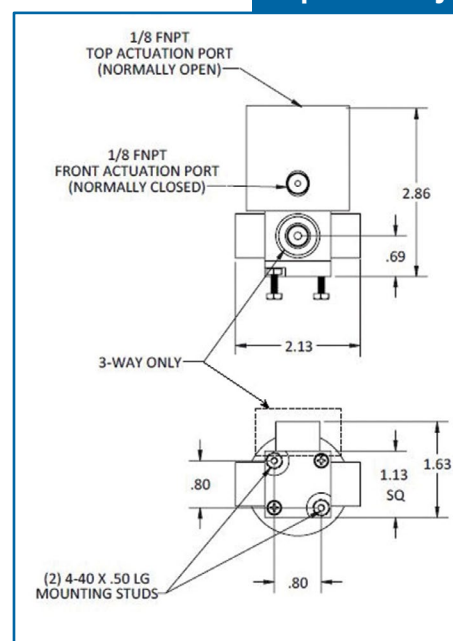


Typical for 1/8" and 1/4" Models

Round Body



Square Body



### IPS Product Notes:

1. Please email Customer Service at [info@ipolymer.com](mailto: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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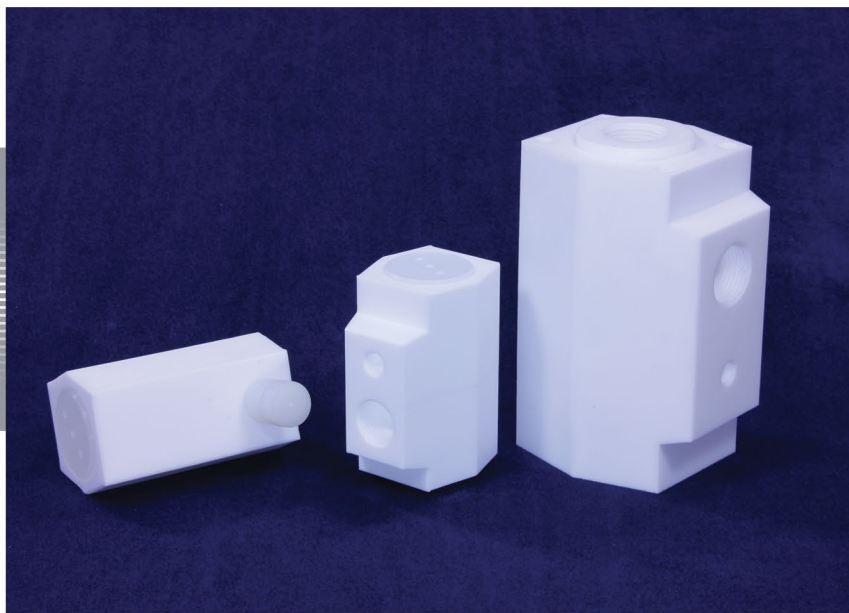
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## Teflon® Pneumatic Valves



Our **IPS Teflon® Pneumatic Valve** (TP Valve) features an all PTFE wetted surface design. The design is ideally suited for harsh chemical and corrosive media and environments.

Polytetrafluoroethylene (PTFE), commonly known by its popular E.I. DuPont trade name Teflon®, is well suited to clean room and deionized water applications.



### Features

- One Piece PTFE Body
- Optimum Anti-Corrosion Design
- Ideal for Hi-Temp Applications
- Complete Media Isolation

### Materials of Construction

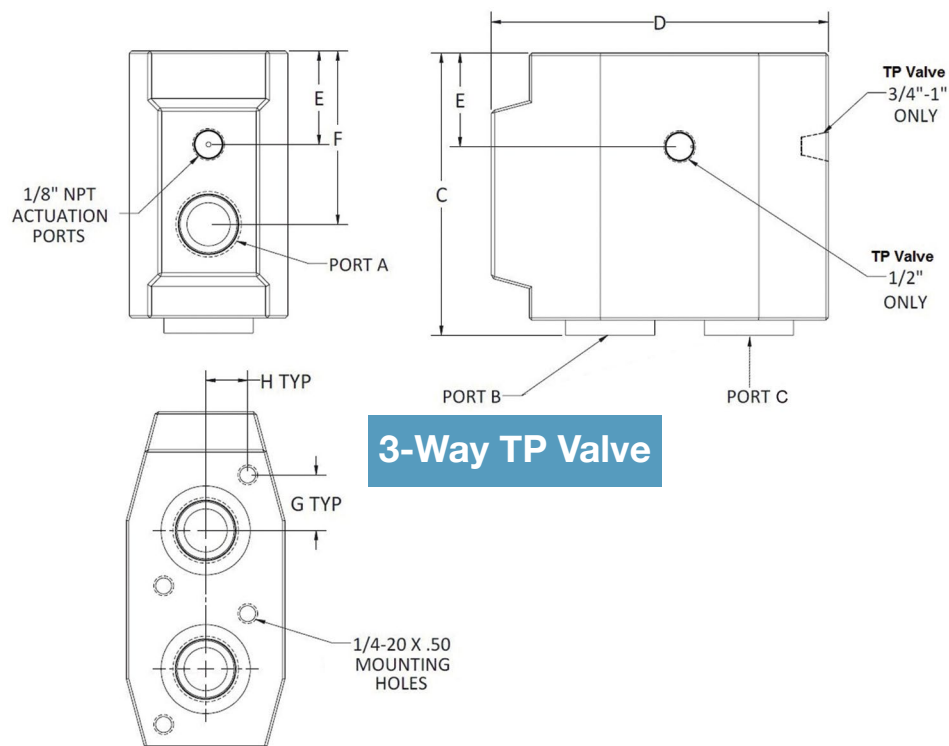
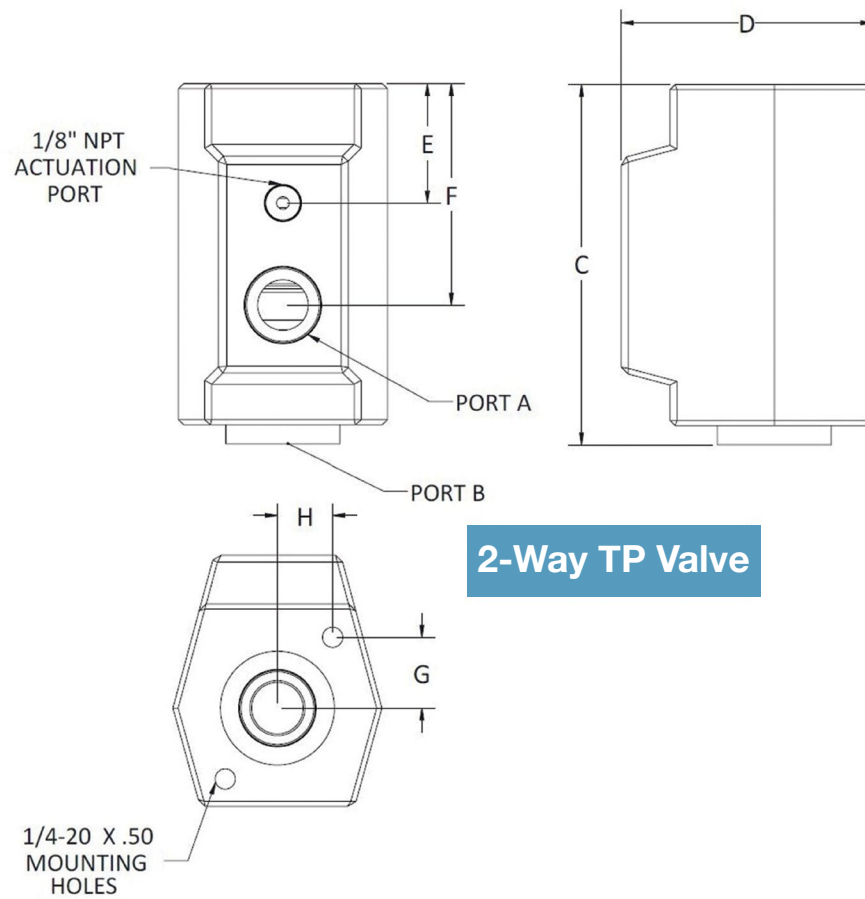
Body.....PTFE  
Bellows/Poppet.....PTFE  
Backing Plate.....PTFE  
Piston.....PVDF  
Cap.....Polypropylene  
Spring.....Stainless Steel

### Specifications

Size	1/2" Orifice	3/4" Orifice	1" Orifice
<b>C<sub>v</sub></b>	2.2	2.8	7.5
<b>Max Pressure<sup>2</sup></b>			
<b>Port A</b>	75 psi	50 psi	50 psi
<b>Port B &amp; C</b>	45 psi	10 psi	10 psi
<b>Actuator Pressure-psi min/max</b>	50 / 80	50 / 80	50 / 80
<b>Max Media Temperature<sup>2</sup></b>	300° F	300° F	300° F
<small>1. Specifications applicable for both normally open and normally closed configurations. 2. See Pressure vs. Temperature graph for full range. 3. Port C reference for 3-Way only.</small>			

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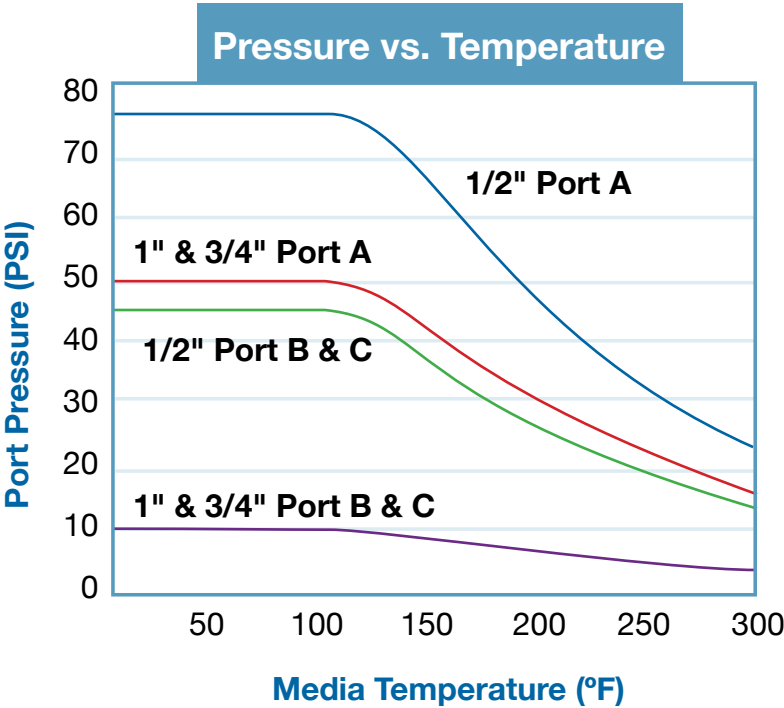
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Style	Port A	Port B Port C	C	D	E	F	G	H
2 Way	1/2"	1/2"	3.56	2.48	1.18	2.19	0.70	0.54
2 Way	3/4"	3/4"	5.60	3.53	1.93	3.64	1.21	0.85
2 Way	1.0"	1.0"	5.60	3.53	1.93	3.64	1.21	0.85
3 Way	1/2"	1/2"	3.56	4.25	1.18	2.19	0.70	0.54
3 Way	3/4"	3/4"	5.60	6.00	1.93	3.64	1.21	0.85
3 Way	1.0"	1.0"	5.60	6.00	1.93	3.64	1.21	0.85

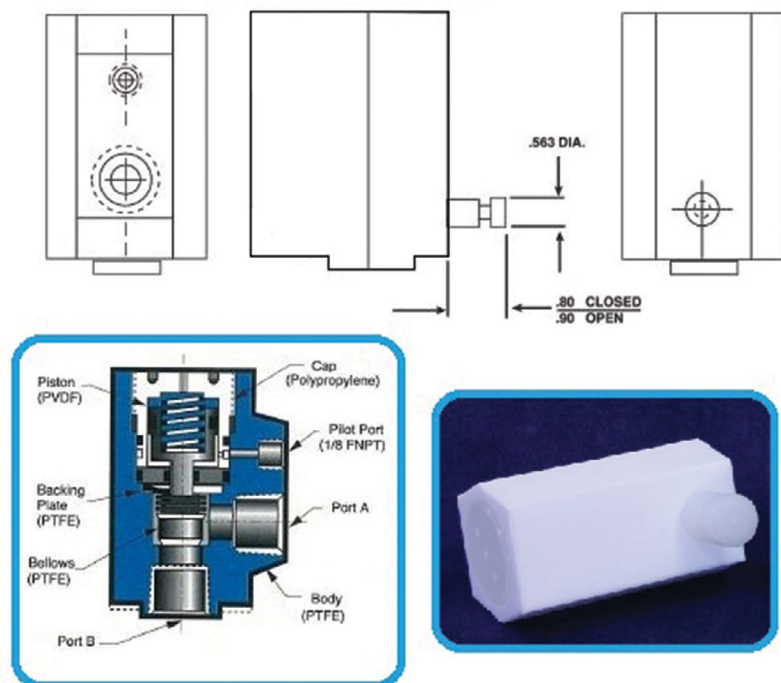
Application Uses:

- Chemical Neutralization
- Chemical Delivery
- DI Water Rinse
- Wafer Etching
- Acid Parts Cleaning
- Phosphoric Acid Nitride Removal
- Sulfuric Peroxide Stripping
- Potassium Hydroxide Etching





## AB Option

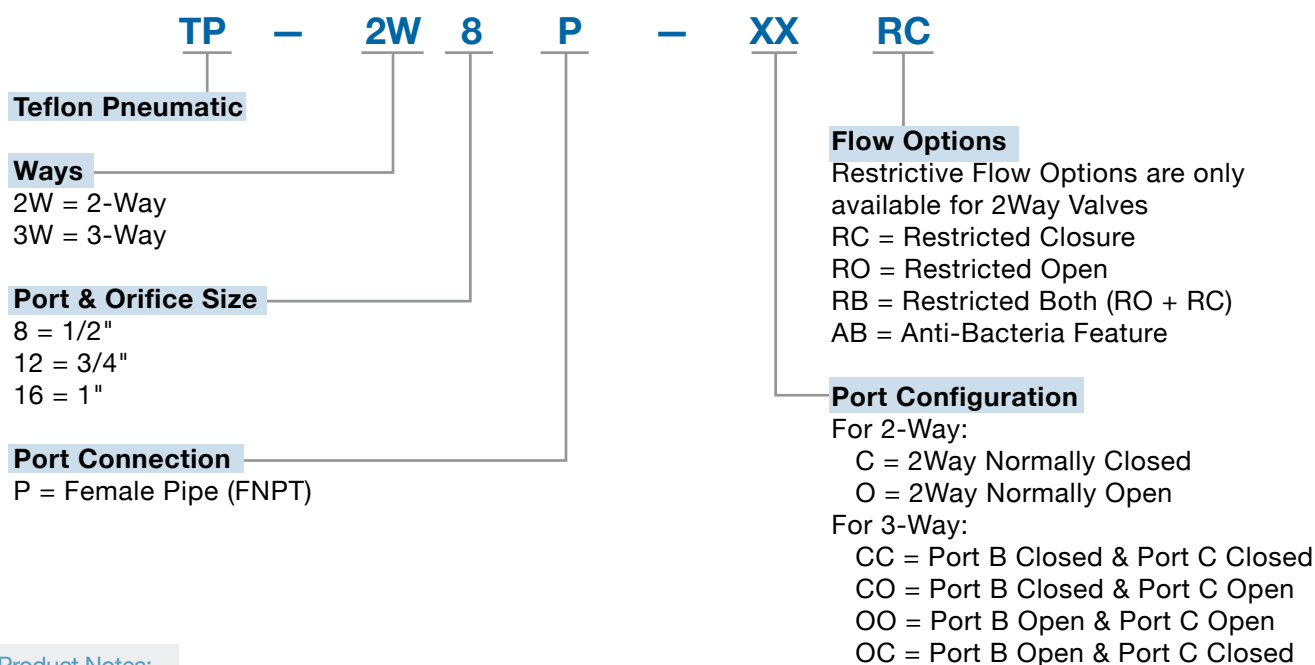


This style TP Valve offer a continuous metered flow path to reduce the potential of chemical and bacteria build-up.

Currently only offered in our 2-Way Normally Closed Port Configuration, the "AB" Option adds a metering screw and bleed bypass across the valve seat.

This controlled flow rate maintains a continuous system flow which reduces chemistry and bacteria build-up in both the valve gallery and associated plumbing.

## Teflon Pneumatic Valve: ORDERING FORMAT



### IPS Product Notes:

1. Please email Customer Service at [info@ipolymer.com](mailto: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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## Suckback Valves



### Our IPS Suckback Valves

are ideal for acid, solvent, photoresist solutions and other process dispensed chemistries. The IPS Suckback Valve will pull a vacuum and prevent excessive dripping from the dispensing nozzle.

The IPS Suckback Valve is constructed of an "all wetted" PTFE media flow path.

Our 104168 Suckback Valve incorporates the suckback feature in a Normally Closed pneumatic valve.



When air pressure is removed from the valve actuator, an internal diaphragm is pushed upward which forms a vacuum in the valve body.

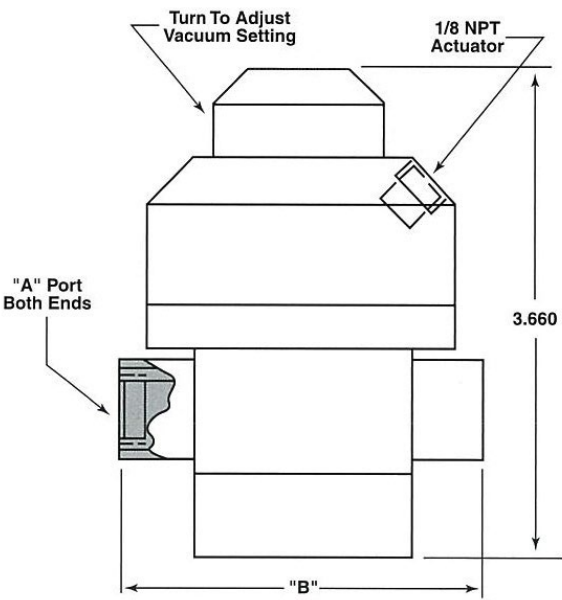
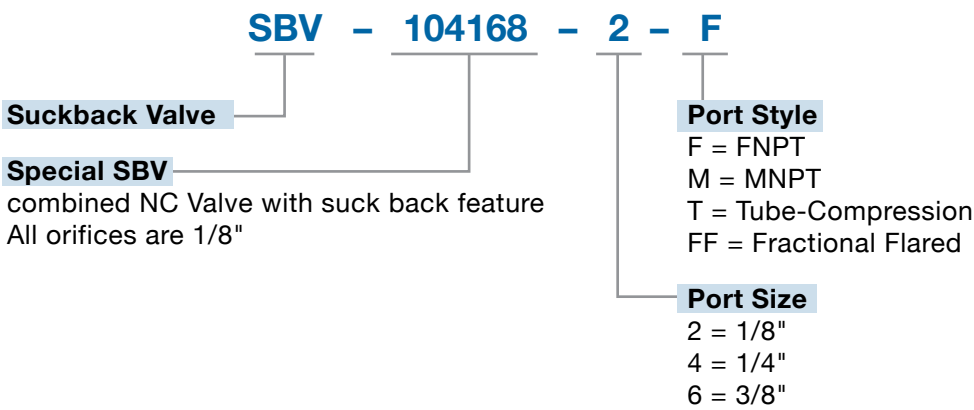
While the valve is closing, the vacuum sucks back the final droplets of process media. Thereafter, the valve completely closes and seals the media flow path.

An additional unique feature of the 104168 Suckback Valve is a Vacuum Adjustment Knob which allows the user to set the vacuum level.

### Specifications:

Actuator Pressure (min/max)	45 / 60 psi
Maximum Media Pressure	30 psi
Maximum Media Temperature	185°F / 85°C
Maximum Ambient Temperature	140°F / 60°C

Suckback Valves: ORDERING FORMAT



SBV Port Size & Style	104168 ( "B" )
1/8" FNPT	2.75
1/8" MNPT	2.75
1/8" Tube	2.39
1/4" FNPT	2.75
1/4" MNPT	2.75
1/4" Tube	2.75
1/4" Flared	3.63
3/8" FNPT	2.75
3/8" MNPT	2.75
3/8" Tube	2.63
3/8" Flared	3.63

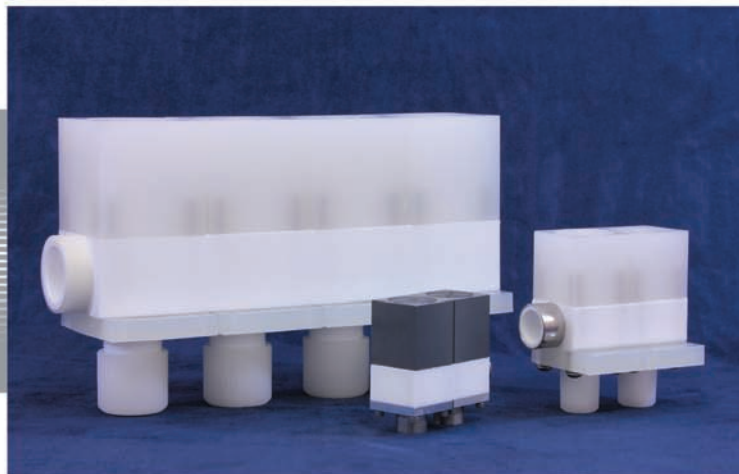
IPS Product Notes:

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- 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.



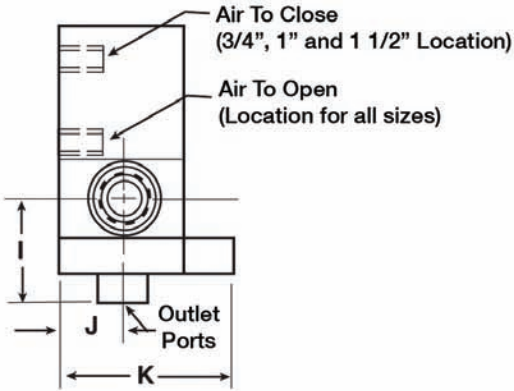
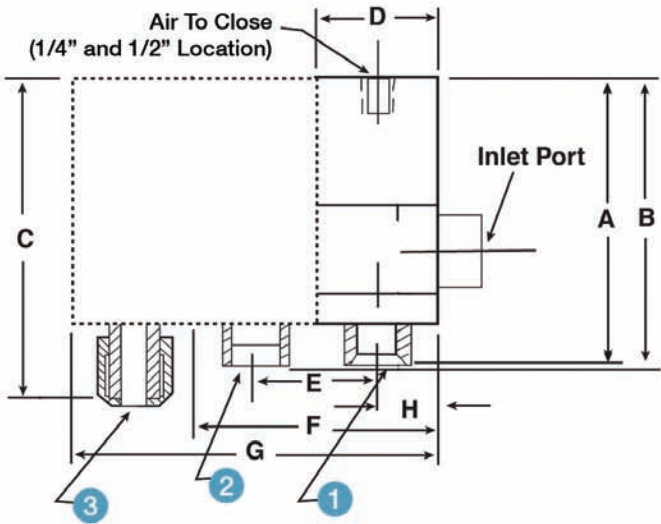
## Chemical Resistant Valves

**Chemical Resistant (CR) Valves** offer chemical and corrosion control through a complete fluoroplastic design and construction. All wetted surfaces are manufactured from virgin PTFE. Pneumatic Actuator, Base and Bands are constructed from PVC (standard). The polymer components selected for our IPS CR Valve line are specifically suited for use with ultrapure water, deionized water, solvents, chemicals and liquid flowing bio-matter. Our PTFE Bellows-style valve stem and PTFE valve seat help ensure the valve self-flushes a wide variety of flowing media. Special custom configurations are available on request. These include: manifold valve assemblies with multiple ports and high ambient temperature pneumatic actuators.



Size	1/4"	1/2"	3/4"	1"	1 1/2"
<b>Cv</b>	0.8	2.8	7.5	13.5	30.0
<b>Flow Rate (GPM @ 60 psi)</b>	4.6	10.7	23	42	94
<b>Max Pressure</b>					
<b>Inlet Port-psi</b>	60	60	60	60	60
<b>Outlet Port-psi</b>	60	50	30	20	10
<b>Actuator Pressure (Min/Max)</b>	40 / 60	40 / 60	50 / 70	50 / 70	40 / 60
<b>Max Media Temperature</b>	240°F	240°F	240°F	240°F	240°F
<b>Max Ambient Temperature</b>	140°F	140°F	140°F	140°F	140°F
<b>Wetted Surfaces</b>	PTFE	PTFE	PTFE	PTFE	PTFE
<b>Actuator / Base / Bands</b>	PVC	PVC	PVC	PVC	PVC
<b>Actuator Port (see sketch)</b>	10-32 UNF	1/8"FNPT	1/8"FNPT	1/8"FNPT	1/8"FNPT
<b>Inlet Port (FNPT)</b>	1/4"	1/2"	3/4"	1"	1 1/2"
<b>Outlet Port (FNPT, Tube or Flare)</b>	1/4"	1/2"	3/4"	1"	1 1/2"





Size	A	B	C	D	E	F	G	H	I	J	K
1/4"	3.00	3.00	3.20	1.50	1.50	3.00	4.50	0.75	1.27	0.75	1.50
1/2"	3.77	4.10	3.95	1.75	1.81	3.56	5.37	0.88	1.38	0.88	2.44
3/4"	5.75	5.75	5.88	2.75	2.81	5.56	8.37	1.38	2.25	1.38	3.50
1"	5.75	5.75	5.88	2.75	2.81	5.56	8.37	1.38	2.25	1.38	3.50
1 1/2"	6.75	n/a	n/a	3.50	n/a	n/a	n/a	1.75	2.48	1.75	4.50

Chemical Resistant Valves: ORDERING FORMAT

CR

Chemical Resistant

PVC

Actuator Material

PVC = Polyvinyl Chloride  
(ambient T = 140°F)  
POL = Polypropylene  
(ambient T = 160°F)  
PVDF = Polyvinylidene Fluoride  
(ambient T = 230°F)  
PEEK = Polyetheretherketone  
(ambient T = 230°F)  
PFA = Perfluoroalkoxy  
(ambient T = 260°F)

4W

Valve Configuration

2W = 2 Way  
3W = 3 Way  
4W = 4 Way

8

Size

4 = 1/4"  
8 = 1/2"  
12 = 3/4"  
16 = 1"  
24 = 1 1/2"

P

Port Connection

P = FNPT  
T = Tube  
F = Flare

O

Port 1

C = Normally Closed  
O = Normally Open

C

Port 2

C = Normally Closed  
O = Normally Open

C

Port 3

C = Normally Closed  
O = Normally Open

IPS Product Notes:

- 1. Please email Customer Service at [info@ipolymer.com](mailto:info@ipolymer.com)
- 2. Call our IPS Factory for special applications. We can manufacture our CR Valves in multiple port distribution manifolds with a common inlet port and up to 14 outlet ports.
- 3. Upon request, alternate material selection from those listed will allow for expanding temperature ratings.
- 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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# Inline Diaphragm Valves



## Our Inline Diaphragm Valves (IDF)

features an all wetted PTFE flow path with a diaphragm design for ultra pure service. Common applications include DI Water, Acid Drain, and Source Chemistry flow shutoff.

- The IDF valve is offered in a two-way closed configuration.
- All PTFE wetted flow path
- Long life diaphragm design
- Inline flow path reducing cavity corners & dead spots
- The anti-bacteria (AB) configuration is designated by adding -AB onto the suffix of the model number.

The AB Option (not shown) significantly reduces the potential of bacteria buildup and maintain a consistent flow via an independent mechanism. This control mechanism will allow for precise adjustments and a cleaner cavity.

Custom porting & material configurations are available on request (such as; high ambient temperature actuators, sanitary connections and inline filters).



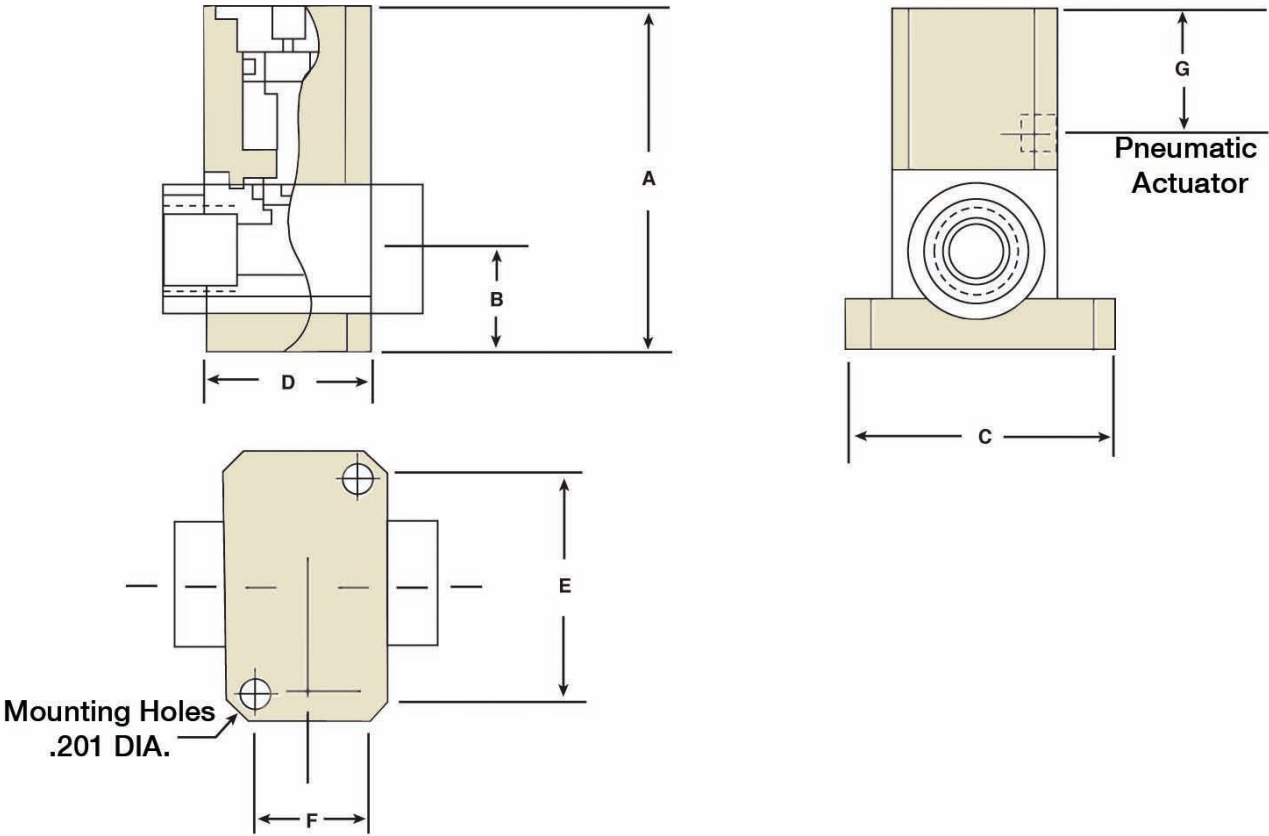
## Specifications

<b>Size</b>	1/2"	3/4"
<b>Cv</b>	2.8	7.5
<b>Max Pressure</b>		
<b>Inlet Port</b>	60 psi	60 psi
<b>Outlet Port</b>	40 psi	40 psi
<b>Actuator Pressure (min./max.)</b>	60 / 80 psi	60 / 80 psi
<b>Max. Media Temperature</b>	300°F	300°F
<b>Max. Ambient Temperature</b>	140°F	140°F
<b>Wetted Surfaces</b>	PTFE	PTFE
<b>Pneumatic Surfaces</b>	Polypropylene	Polypropylene
<b>Inlet Port</b>	1/2"	3/4"
<b>Outlet Port</b>	1/2"	3/4"
<b>Actuator Port</b>	1/8"	1/8"
<b>AB Option: Anti-Bacteria Valve Stem</b>	PVDF	PVDF
<b>AB Option: Adjustment Bleed</b>	0 - .75 GPM	0 - 2.5 GPM

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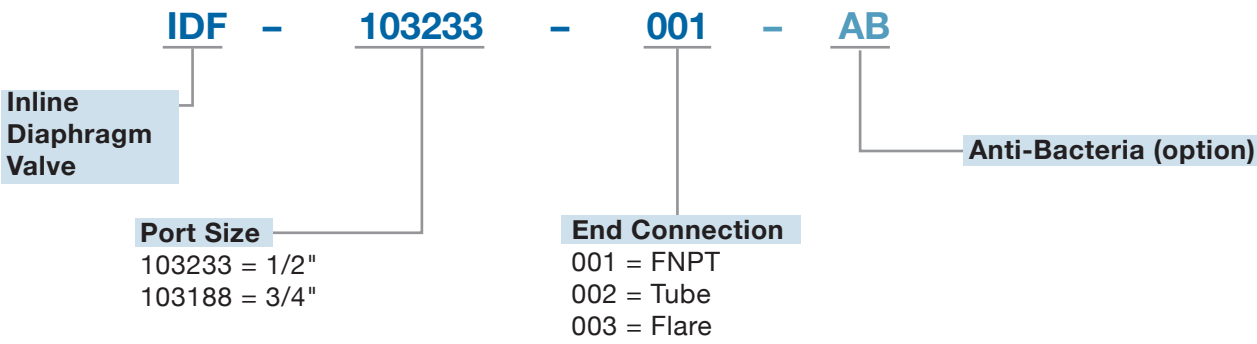
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Size	A	B	C	D	E	F	G
1/2"	3.38	1.00	2.75	1.75	2.25	1.125	1.275
3/4"	4.50	1.25	3.25	2.30	2.80	1.225	1.625

Inline Diaphragm Valves: ORDERING FORMAT



IPS Product Notes:

1. Please email Customer Service at [info@ipolymer.com](mailto:info@ipolymer.com)
2. Call us for special applications.
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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## Quick Dump Valves

### Our Quick Dump ("QD") Valves

are designed to rapidly drain process tanks. Constructed from high-purity polymers, which are selected to meet your applications needs, our Quick Dump Valves are available in Polypropylene (POL), Polyvinylidene Fluoride (PVDF), Perfluoroalkoxy (PFA) or Polyvinyl Chloride (PVC).

These valves are designed to be welded directly to the underside (bottom) of tanks. Our Quick

Dump Valves are available configured with either O-Ring Seats or Domed Hard Seats. The Domed Hard Seat design prevents ponding/puddling of media on the valve piston and allows for a slight trickle of fluid. This plunger-style valve is very compact, while still configured with optional Air-to-Open/Spring-to-Close or Air-to-Open/Air-to-Close actuation.

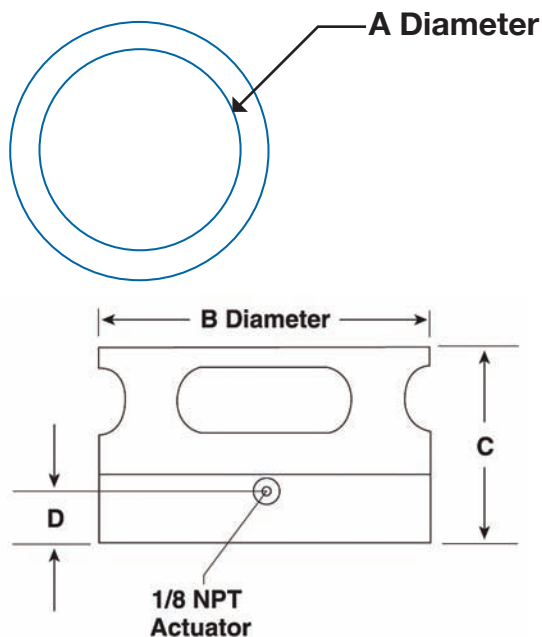


Quick Dump Configuration	2"	4"	6"
<b>Actuation Pressure – PSI (Min / Max)</b>	60 / 70	45 / 55	15 / 20
<b>Media Temperature</b>			
<b>Polypropylene – °F (Min / Max)</b>	30 / 160	30 / 160	30 / 160
<b>PVDF – °F (Min / Max)</b>	20 / 230	20 / 230	20 / 230
<b>PFA – °F (Min / Max)</b>	20 / 300	20 / 300	20 / 300
<b>PVC – °F (Min / Max)</b>	30 / 140	30 / 140	30 / 140
<b>Approximate Dump Rate (GPM @ 1ft Head)</b>	30	60	180



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Size	Seat	Base	A	B	C	D
2"	O-Ring	104520	2"	3"	3.0"	.78"
2"	Hard	104521	2"	3"	3.0"	.78"
4"	O-Ring	103809	4"	5"	3.0"	.80"
4"	Hard	103952	4"	5"	3.0"	.80"
4" (high flow)	O-Ring	104602	4"	5"	4.0"	1.5"
4" (high flow)	Hard	104683	4"	5"	4.0"	1.5"
6"	O-Ring	103951	6"	7.5"	6.6"	2.5"
6"	Hard	104162	6"	7.5"	6.6"	2.5"

## Quick Dump Valves: ORDERING FORMAT

### O-Ring Seat

**QD** - **103809** - **POL** - **E** - **1**

**Quick Dump**

**Base Number**  
 104520 = 2"  
 103809 = 4"  
 104602 = 4" *high flow*  
 103951 = 6"

**Material of Construction**  
 POL = Polypropylene  
 PVDF = Polyvinylidene Fluoride  
 PFA = Perfluoroalkoxy  
 PVC = Polyvinyl Chloride

**Seat & Body O-Ring Type**  
 E = Ethylene Propylene  
 V = ASTM D1418 FKM (Viton eq.)  
 K = ASTM D1418 FFKM (Kalrez eq.)

**Configuration**  
 1 = Air Open/Spring Close  
 2 = Air Open/Air Close

### Hard Seat

**QD** - **103952** - **POL** - **E** - **1**

**Quick Dump**

**Base Number**  
 104521 = 2"  
 103952 = 4"  
 104683 = 4" *high flow*  
 104162 = 6"

**Material of Construction**  
 POL = Polypropylene  
 PVDF = Polyvinylidene Fluoride  
 PFA = Perfluoroalkoxy  
 PVC = Polyvinyl Chloride

**Body O-Ring Type**  
 E = Ethylene Propylene  
 V = ASTM D1418 FKM (Viton eq.)  
 K = ASTM D1418 FFKM (Kalrez eq.)

**Configuration**  
 1 = Air Open/Spring Close  
 2 = Air Open/Air Close

#### IPS Product Notes:

1. Please email Customer Service at [info@ipolymer.com](mailto:info@ipolymer.com)
2. Call us for special applications. We can manufacture our QD 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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## Drain Valve

**BECO**  
manufacturing

**TEQCOM**

**IPS Drain Valve (DV)** series is a large orifice valve capable of handling large volumes of corrosive fluids via an all non-metallic wetted surface. For cost efficiency this valve is fabricated from PVC or Polypropylene. However, it is available in PVDF or PTFE, with Kalrez O-rings.

This valve is also available in 2, 3 and 4 way configurations with each port operating independently. The "DV" can be operated either by air to open/air to close or by spring return. Either operating method can be specified in the ordering format. Custom configurations available.

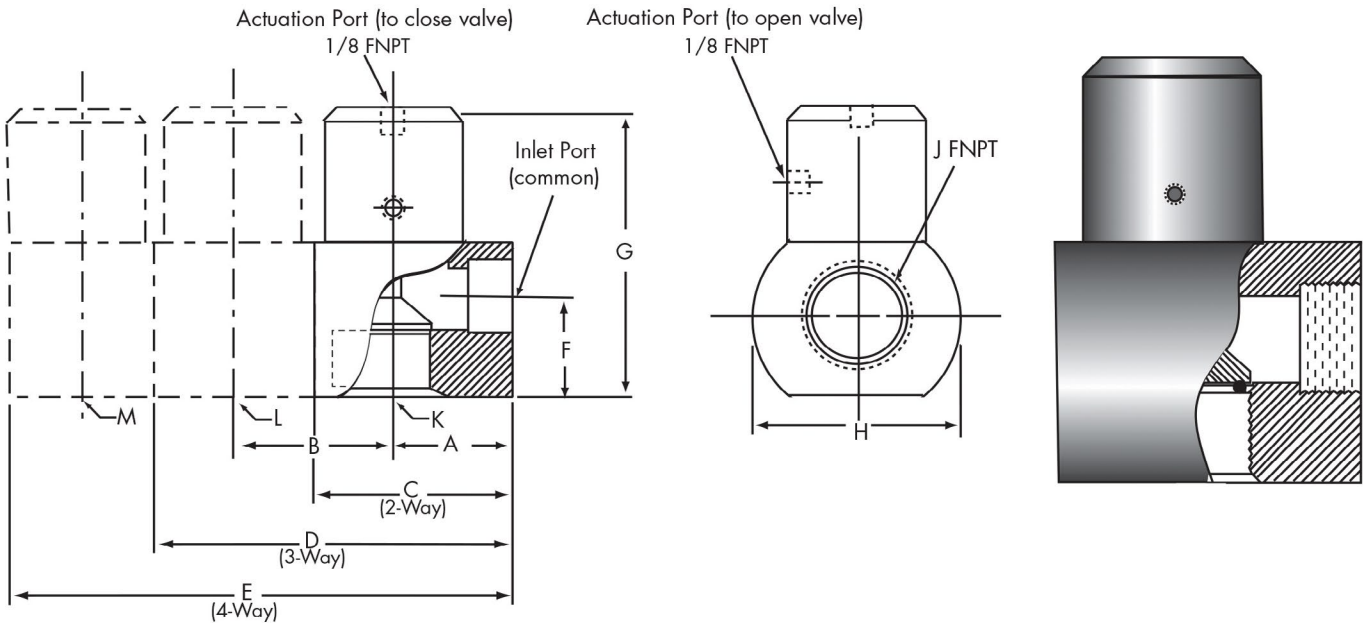


### Applications

Primarily used for quick draining and filling of process tanks which contain mild solutions or DI water. For hard to handle media the "DV" valve, machined from PVDF or PTFE, is the perfect solution.

### Specifications:

<b>Inlet Media Pressure</b>	20 psi
<b>Media Temperature</b>	
PVC	140°F/60°C
Polypropylene	160°F/70°C
PVDF	212°F/100°C
PTFE	320°F/160°C
<b>Actuation Pressure</b>	45 - 60 psi
<b>O-Ring Material</b>	Ethylene Propylene (standard) Viton or Kalrez® FFKM equiv.



ORIFICE	A	B	C	D	E	F	G	H Dia	J FNPT	K FNPT Port 1	L FNPT Port 2	M FNPT Port 3
3/4"	2.16	2.56	3.50	6.07	8.63	1.79	5.50	4.00	3/4"	3/4"	3/4"	3/4"
1"	2.16	2.56	3.50	6.07	8.63	1.79	5.50	4.00	1"	1"	1"	1"
1.5"	2.31	3.07	3.88	6.88	9.88	1.97	6.06	4.00	1.5"	1.5"	1.5"	1.5"
2"	3.00	3.50	4.81	8.31	11.81	2.28	6.88	5.00	2"	2"	2"	2"

Drain Valve: ORDERING FORMAT

**DV**   **2**   **-**   **PVC**   **-**   **16**   **-**   **C**   **-**   **EP**

**Drain Valve**

**Valve Configuration**  
2 = 2 Way  
3 = 3 Way  
4 = 4 Way

**Material of Construction**  
PVC = Polyvinyl Chloride  
POL = Polypropylene  
PVDF = Polyvinylidene Fluoride  
PTFE = Polytetrafluoroethylene

**Port & Orifice Size**  
12 = 3/4"  
16 = 1"  
24 = 1 1/2"  
32 = 2"

**O-Ring Type**  
EP = Ethylene Propylene  
VT = Viton  
KA = Kalrez® FFKM equiv.

**Porting Configuration**  
C = Spring to Close, Air to Open  
O = Spring to Open, Air to Close  
A = Air to open, Air to Close

**4-WAY example:**  
COA = (C=Port 1, O=Port 2, A=Port 3) shown upper left corner

**3-WAY example:**  
CO = (C=Port 1, O=Port 2) shown upper left corner

IPS Product Notes:

- 1. Please email Customer Service at [info@ipolymer.com](mailto: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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## Multi Purpose Valve

**BECO**  
manufacturing

**TEQCOM**

**IPS Multi Purpose Valve (MP) Body** is manufactured in three material choices: PVC, Polypropylene, or PVDF depending on the individual application. The PVDF configuration is ideal for anti-corrosion and elevated temperature applications as well as making an excellent acid drain valve.

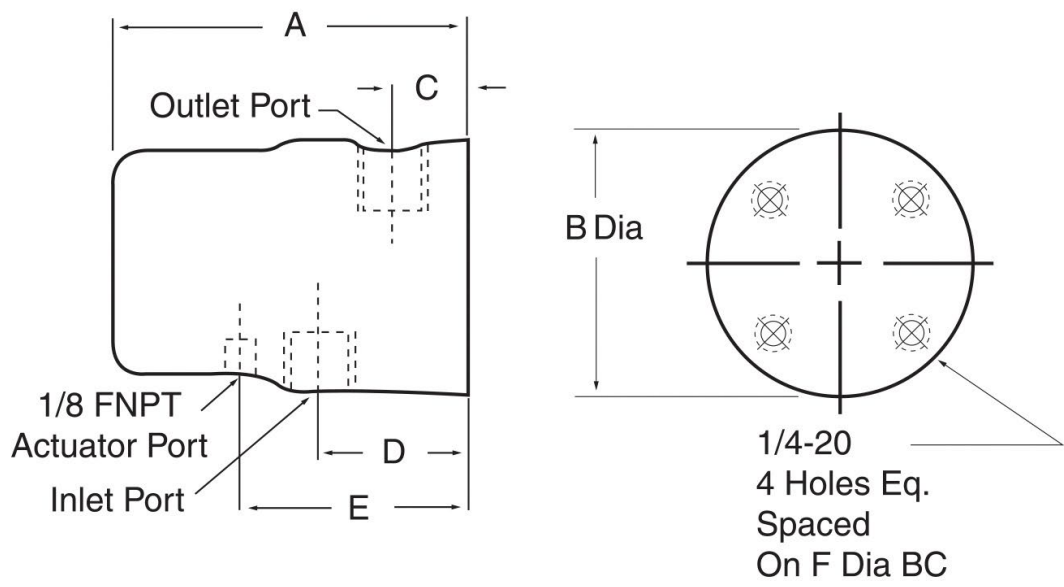
The PVC, Poly, and PVDF configurations are the choice for wet bench manufacturers and semiconductor facilities where ultra pure DI Water is required.

The IPS unique bellows-stem design completely isolates the pneumatic actuator from the fluid media.



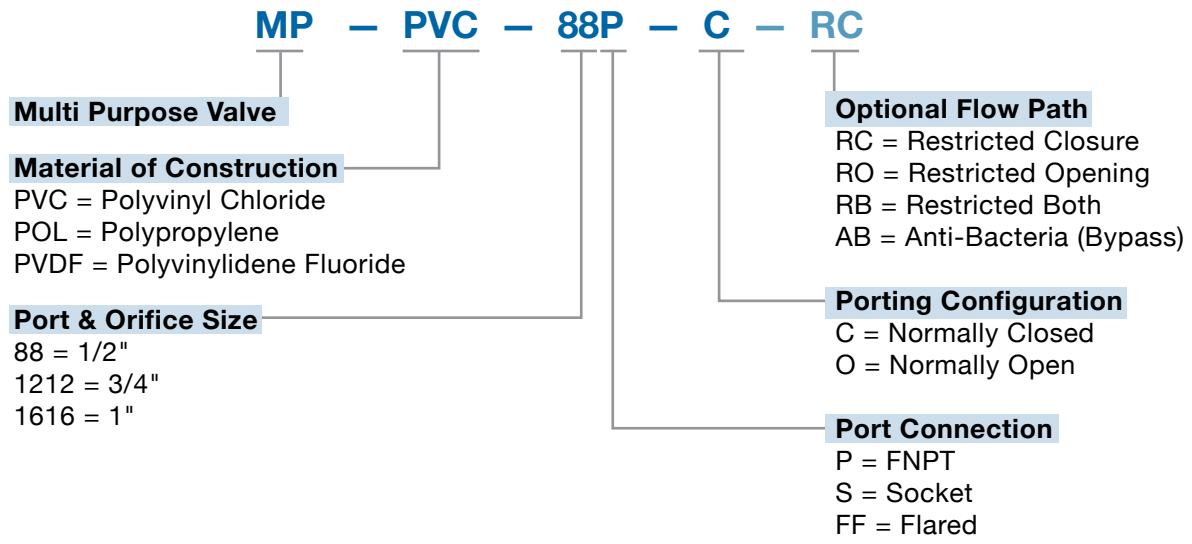
Size	1/2" Orifice	3/4" Orifice	1" Orifice
Cv	2.8	7.5	13.5
Max Pressure			
Inlet Port-psi	75	60	60
Outlet Port-psi	45	10	10
Actuator Pressure-psi (min/max)	40/80	40/80	40/80
Max Media Temperature			
PVC	140°F	120°F	120°F
Poly	160°F	140°F	140°F
PVDF	212°F	175°F	175°F
Max Ambient Temperature			
PVC	140°F	120°F	120°F
Poly	160°F	140°F	140°F
PVDF	212°F	175°F	175°F





Size	Inlet Port	Outlet Port	A	B	C	D	E	F
1/2"	1/2" FNPT	1/2" FNPT	3.40	2.75	0.650	1.337	2.345	2.00
3/4"	3/4" FNPT	3/4" FNPT	4.85	4.00	1.000	2.160	3.465	3.00
1"	1" FNPT	1" FNPT	4.85	4.00	1.000	2.160	3.465	3.00

Multi Purpose Valve: ORDERING FORMAT



IPS Product Notes:

1. Please email Customer Service at [info@ipolymer.com](mailto: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.
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## Water Valve

**BECO**  
manufacturing

**TEQCOM**

**IPS Water Valve (WV)** is manufactured in three material choices: PVC, Polypropylene, or PVDF. The valve has a spring return and is pneumatically actuated to open or close depending upon the model.

The valve is compact and comes with four tapped holes on the base for ease of mounting.

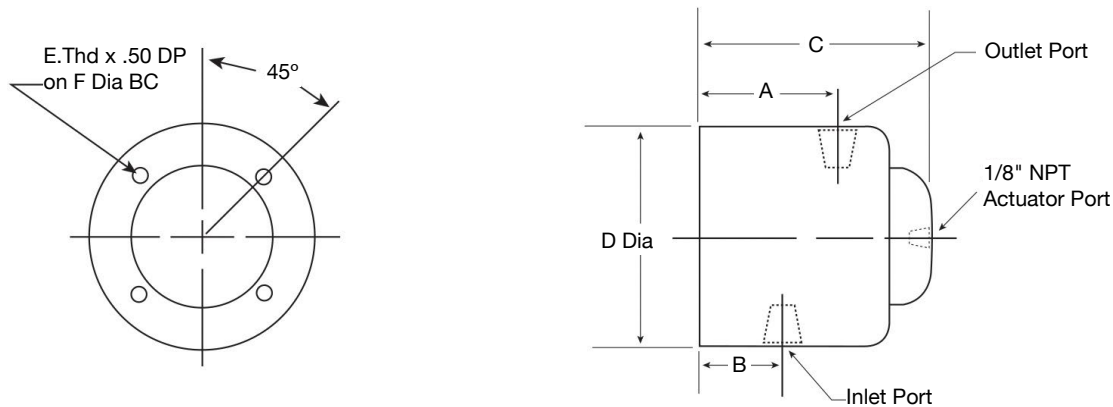
### Applications

The IPS Water Valve is primarily used for purified water applications, DI water applications and controlled process tank applications. The Polypropylene and PVDF configurations of this valve can be used for numerous mild chemical applications. These include rinsing, blending, and other pneumatically controlled process applications. Call IPS Customer Service for assistances with your chemistry and environmental conditions.



### Specifications

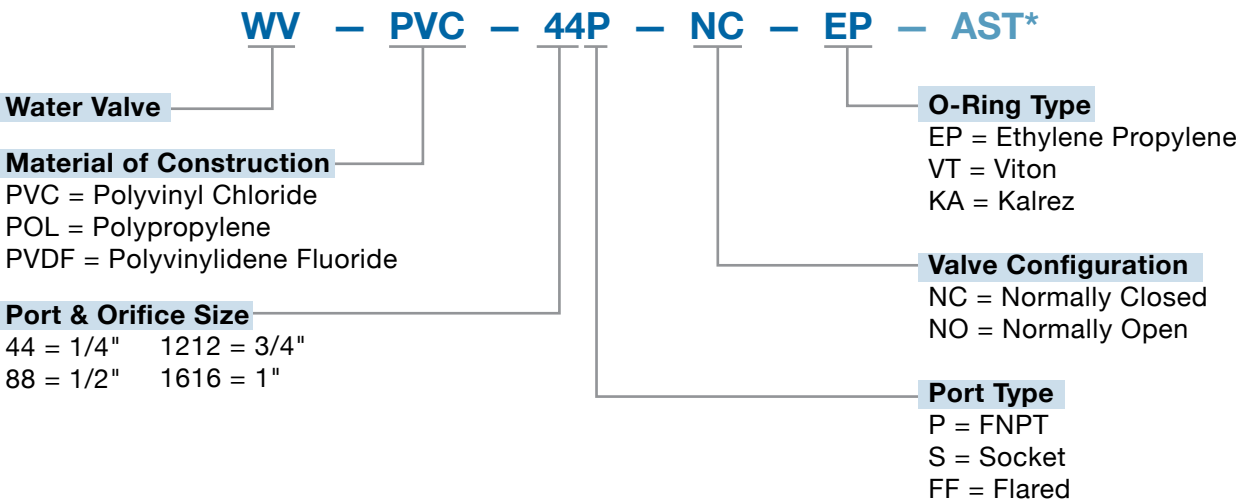
Size	1/4" Orifice	1/2" Orifice	3/4" Orifice	1" Orifice
Cv	0.8	2.8	7.5	13.5
Max Pressure Inlet	80 psi	80 psi	60 psi	60 psi
Max Media Temperature				
PVC		140°F / 60°C		
Poly		160°F / 70°C		
PVDF		212°F / 100°C		
Actuator Pressure (min/max)		35 / 70 psi		



Size	A	B	C	D Dia	E Thd	F Dia
1/4"	1.520	1.000	2.440	2.25	1/4" - 20 UNC-2B	1.81
1/2"	1.690	.955	2.780	2.75	1/4" - 20 UNC-2B	2.00
1/2"	1.146	1.146	2.250	2.75	1/4" - 20 UNC-2B	2.00
3/4"	2.280	1.330	3.660	3.00	1/4" - 20 UNC-2B	2.50
1"	3.825	1.685	4.425	4.00	1/4" - 20 UNC-2B	3.44

= Low Profile (in line) water valve

Water Valve: ORDERING FORMAT



IWC	PVC	2C8	EP
INLINE (Low Profile) WATER VALVE	Materials of Construction PVC = Polyvinyl Chloride POL = Polypropylene PVDF = Polyvinylidene Fluoride	Valve Configuration 1/2" 2 Way Normally Closed	O-Ring Type EP = Ethylene Propylene VT = Viton KA = Kalrez

**\*Optional Flow Path:**  
**AST** = Reduce bacterial buildup with an Adjustment Screw Top-side. The adjustment screw, installed at the top of valve, prevents complete closure thereby allowing a controlled drip. Ideal for DI Water applications.  
**ASB** = Create a metering effect with an Adjustment Screw Bottom-side. The adjustment screw, installed at the bottom of the valve, meters the orifice opening.  
**ATB** = Combine both optional features into one valve (AST + ASB) with Adjustment Screws Top-side & Bottom-side for both controlled drip and orifice metering.

IPS Product Notes:

- 1. Please email Customer Service at [info@ipolymer.com](mailto: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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## DI Water Valve

**BECO**  
manufacturing

**TEQCOM**

**IPS DI Water Valves** are perfect 2-Way valvest for wet bench manufactures or any semiconductor facility where ultra pure water is required.

### Wetted Path is free of...

- Lubricants
- Elastomers
- Springs

Our IPS DI Valve materials of construction include three options for the Body, Piston and Cap Assembly: PVC, Polypropylene or PVDF. For the highest level of chemical inertness and overall fluid handling performance all three configurations include 100% Virgin PTFE for the Bellows and Backing Plate construction.

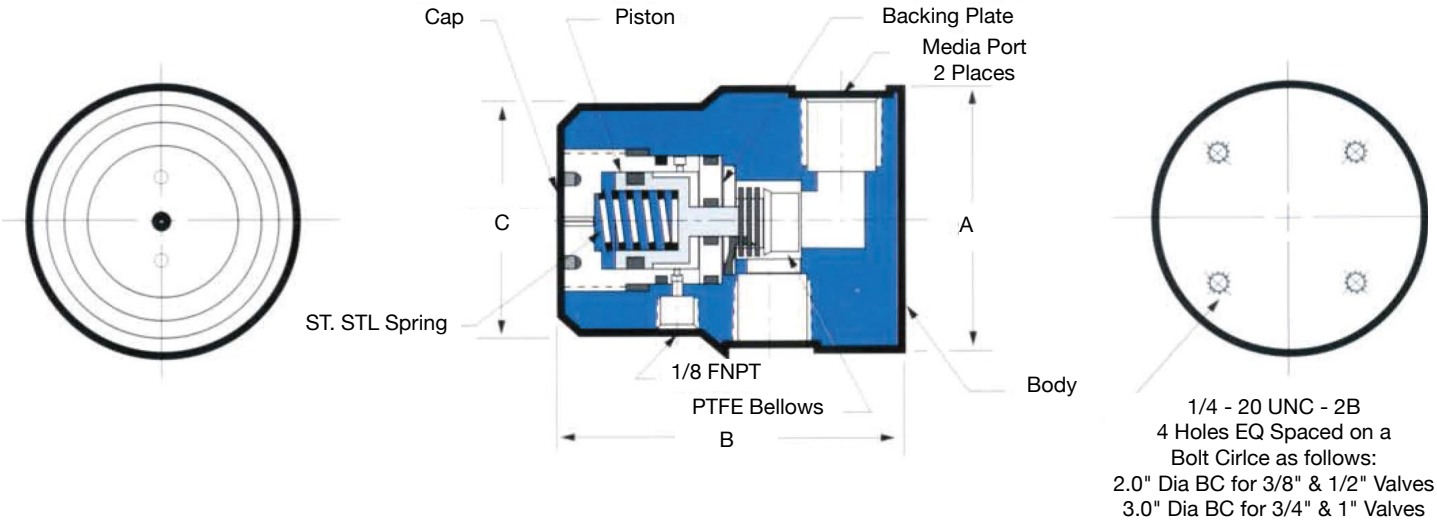
O-Ring Seal options include EP or Viton.  
All DI Valve come standard with high performance Stainless Steel actuation springs.



DI Valve Specifications	PVC Model	Polypro Model	PVDF Model
Valve Type	2-Way NO or NC	2-Way NO or NC	2-Way NO or NC
Port & Orifices Available	3/8", 1/2", 3/4" & 1"	3/8", 1/2", 3/4" & 1"	3/8", 1/2", 3/4" & 1"
Fluid Max Pressure (psi) @ 70°F	75 psi	75 psi	75 psi
Media Backpressure (psi) @ 70°F	30 psi	30 psi	30 psi
Fluid Temperature Range	38°F to 140°F	38°F to 160°F	38°F to 200°F
Ambient Temperature Range	38°F to 140°F	38°F to 140°F	38°F to 140°F
Acuation Pressure (psi)	40 psi to 80 psi	40 psi to 80 psi	40 psi to 80 psi

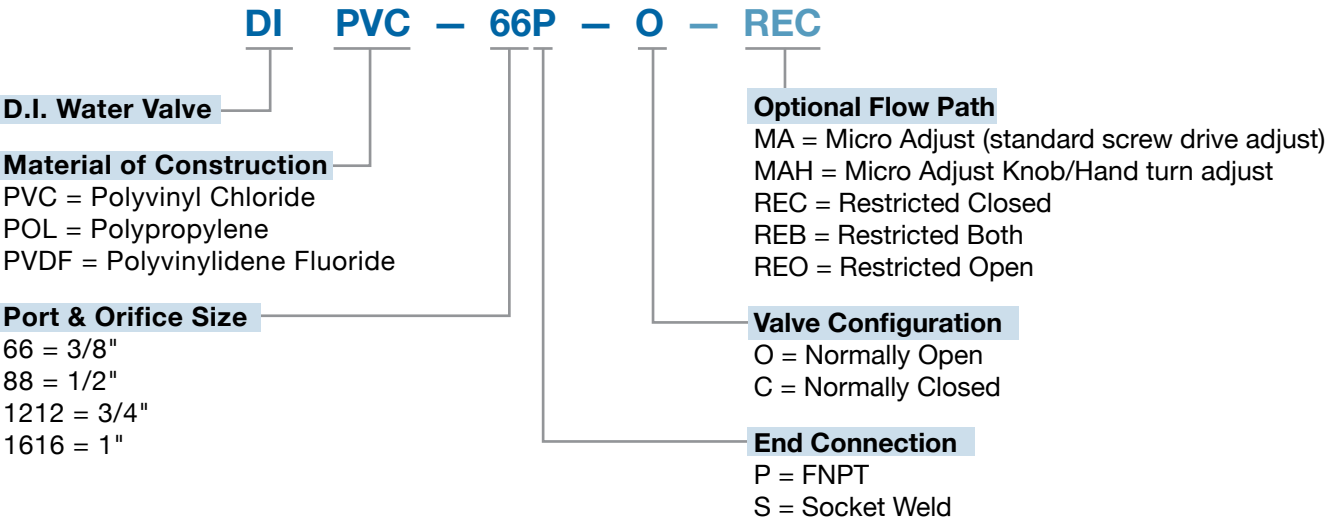
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Port & Orifice	Cv Factor	Dim "A"	Dim "B"	Dim "C"
3/8"	2.1	2.75	3.56	2.38
1/2"	2.8	2.75	3.56	2.38
3/4"	7.5	4.00	6.13	3.31
1"	13.5	4.00	6.13	3.31

DI Water Valve: ORDERING FORMAT



IPS Product Notes:

- 1. Please email Customer Service at [info@ipolymer.com](mailto: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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## H2O - Pneumatic & Foot Operated Valves



Our **H2O Valves** are manufactured from corrosion resistant materials such as PVC, Polypropylene and PVDF. Each model is a spring return air actuated design where the spring is isolated from the flowstream by a diaphragm to prevent media contamination.

The **Polypropylene** configurations are ideal for DI water service.

The **PVDF** models with Kalrez® O-rings are used for harsh chemical applications.



### Options

#### Foot Valve

Manual Foot actuated style is available. To order add "FV" to the suffix of part number.

#### Anti-Bacterial

An Adjusting Screw is installed at the top of valve. Clockwise screw rotation prevents complete valve closure thereby allowing a controlled drip. To order add "REC" to suffix of part number.

#### Meter Effect

An Adjusting Screw is installed at the valve base. Clockwise rotation will decrease the orifice opening. Used to meter the fluid flow. To order add "REB" to suffix of part number.



**Max Media Pressure**

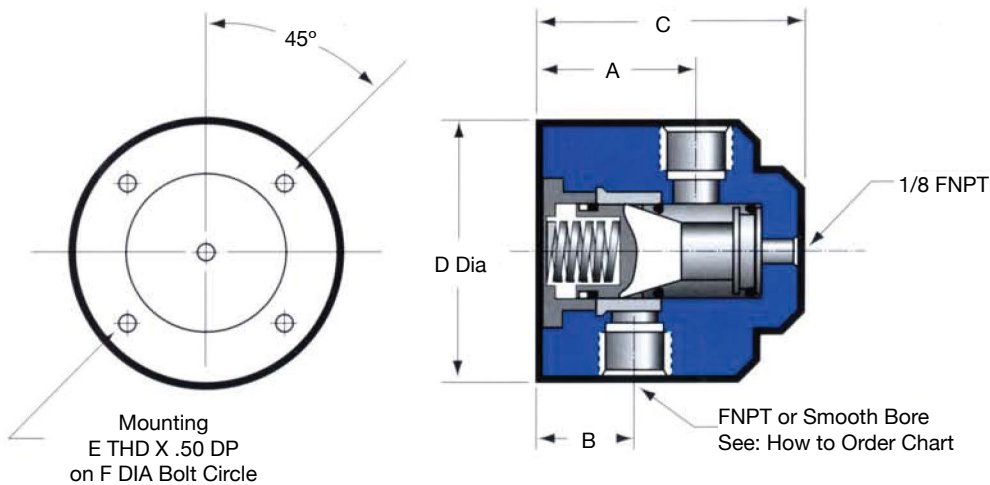
1/4", 1/2" size    80 PSI  
3/4", 1" size      60 PSI

**Max Media Temperature**

PVC                      140°F / 60°C  
Polypropylene        160°F / 70°C  
PVDF                    212°F / 100°C

**Acuation Pressure**

Range  
35 - 75 PSI



Orifice Size	A	B	C	D DIA	E THD	F DIA
1/4"	1.625	1.125	2.56	2.00	8-32 UNC-2B	1.75 DIA BC
1/2"	1.690	0.985	2.78	2.75	1/4-20 UNC-2B	2.00 DIA BC
3/4"	2.280	1.330	3.66	3.00	1/4-20 UNC-2B	2.50 DIA BC
1"	3.250	1.950	4.88	4.00	1/4-20 UNC-2B	3.44 DIA BC

**HOW TO ORDER**

**TA - PVC - 44P NC - EP - REC**

**Material**

PVC = Polyvinyl Chloride  
POL = Polypropylene  
PVDF = Polyvinylidene Fluoride

**Port Size**

44 = 1/4"  
66 = 3/8"  
88 = 1/2"  
1212 = 3/4"  
1616 = 1"

**Port Type**

P = FNPT  
S = Socket Weld  
FF = Flared

**Optional Flow Path**

REC = Restricted Closed  
REB = Restricted Both (Metering Effect)

**O-Ring Material Type**

EP = Ethylene Propylene  
VT = Viton  
KA = Kalrez®

**Valve Configuration**

NC = Normally Closed  
NO = Normally Open

**IPS Product Notes:**

1. Please email Customer Service at [info@ipolymer.com](mailto:info@ipolymer.com)
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