



## Suck Back NC Valve Manifold

Our **iPolymer Suck Back NC Valve Manifold** is an ideal combination valve assembly for photoresist, acid, solvent, high purity solutions and other precision dispensed chemistry applications.

The iPolymer Dual NC Suck Back Valve Manifold combines a Normally Closed Pneumatic Diaphragm Valve and a special Suck Back Diaphragm Valve within the same PTFE manifold body.

With this unique design, when the user removes actuation pressure from the valve assembly, the NC Valve immediately closes and blocks further media flow. At the same moment, the Suck Back Valve draws a slight vacuum by lifting a second PTFE diaphragm. The induced vacuum creates a negative pressure on the residual media within the downstream dispensing flow path. The effect at the nozzle exit: 1) a negative meniscus is created on the fluid column, 2) reduced tendency for a residual droplet to form and dispense from the nozzle. The use of our Dual NC Suck Back Valve Manifold results in clean and consistent metered dispensing of chemistry with lower risk of extra residual flow.

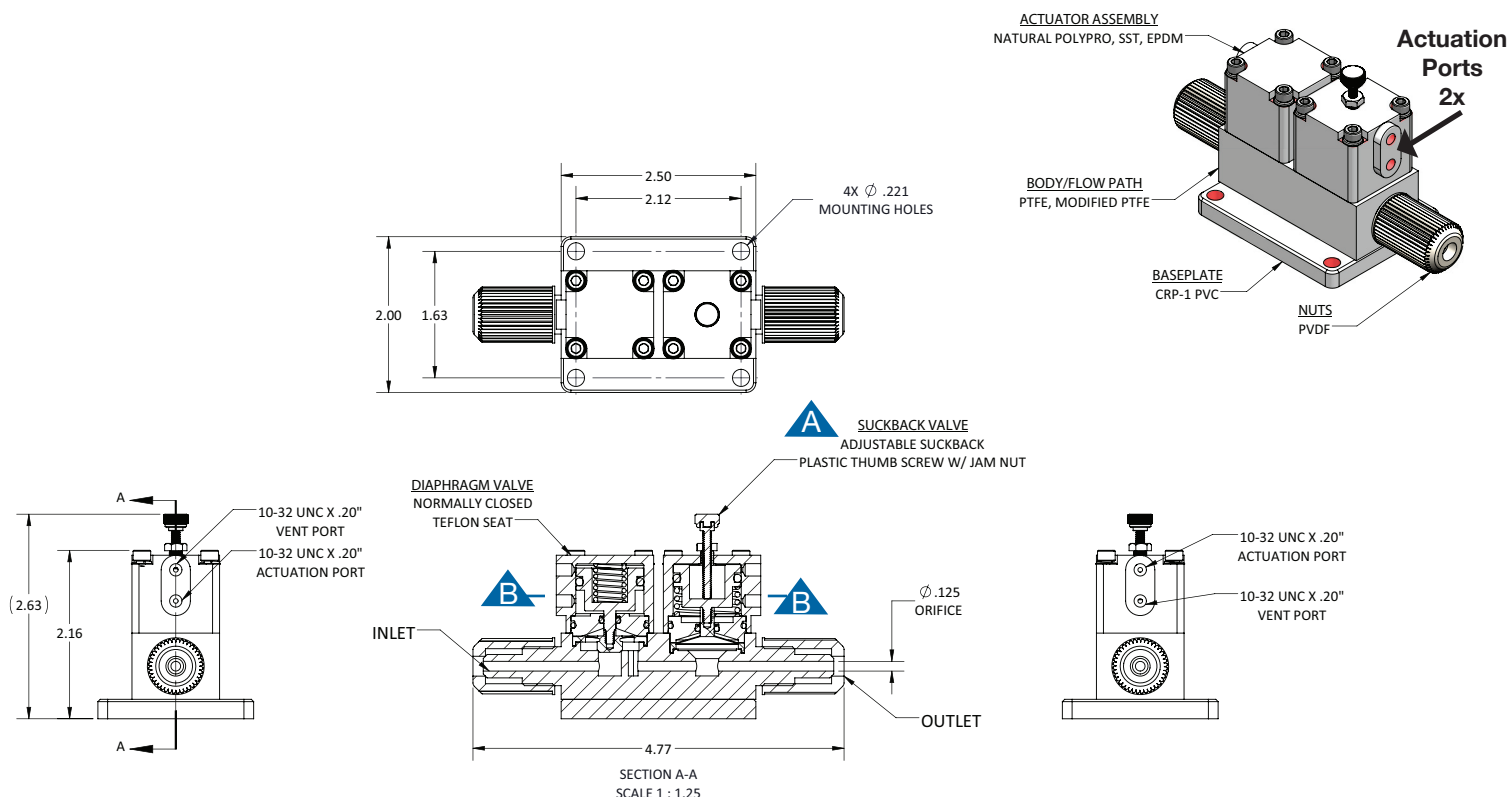
The design includes an “all wetted” PTFE flow path within the NC Valve and Suck Back Valve. Built within a space-saving solid PTFE manifold body, the unit includes PTFE diaphragms to completely isolate the flow path. The standard assembly includes a fine tuning adjustment vacuum knob at the top of the Suck Back valve actuator. Within limits, this adjustment knob allows the user to adjust the vacuum applied to the downstream fluid.



### Specifications:

<b>Actuator Pressure</b> (min/max range)	50 psi to 80 psi
<b>Maximum Inlet Pressure</b>	40 psi
<b>Maximum Outlet (Back) Pressure</b>	20 psi
<b>Media Temperature Range</b>	48°F - 200°F
<b>Ambient Temperature Range</b>	48°F - 200°F
<b>Suck Back Range</b> (at 75F and 1.0 SG)	0 - .30 CC
<b>Media Viscosity Range</b> (at 75F)	0.60 to 5000 cps





PART NUMBER	PORT TYPE ("A")	NOMINAL ORIFICE ("B")	END TO END LENGTH ("C")	OPTIONAL SPEED CONTROL
DVSB-22P	1/8" FNPT Pipe	0.125	3.62	-SCV
DVSB-44P	1/4" FNPT Pipe	0.250	3.62	-SCV
DVSB-21T	1/8" Compression Tube	0.094	3.26	-SCV
DVSB-43T	1/4" Compression Tube	0.188	3.50	-SCV
DVSB-42F	1/4" Flare Connection	0.125	4.50	-SCV

Suck Back performance will vary with variations in:

- actuation pressure
- media temperature
- media viscosity
- media particle count

The topside plastic thumb screw is used to adjust the suck back characteristic.

Optional Pneumatic Actuator Speed Control Valves (-SCV) can be added to the valve actuator exhaust ports. These small needle valves allow the user to fine tune the NC closure rate and the Suck Back diaphragm opening rate.

For additional control, the assembly has an optional set of Speed Control Valves available for the two pneumatic actuators. These Speed Control Valves ("-SCV") will give the user more control in setting the NC valve and the Suck Back valve closure timing rates and thus accommodate a wider range of fluid viscosities.

#### iPolymer 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.