

## Section D



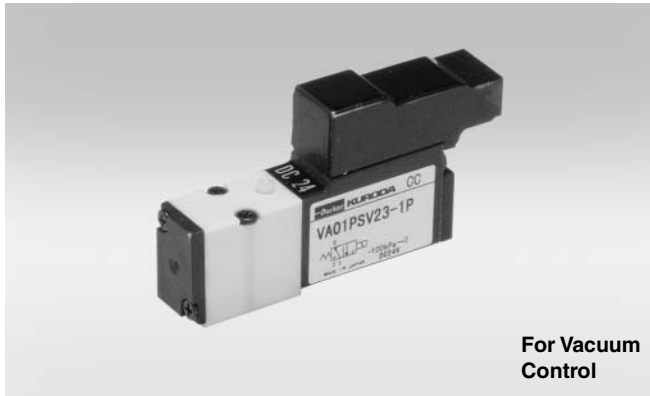
D







# PSV23



For Vacuum Control

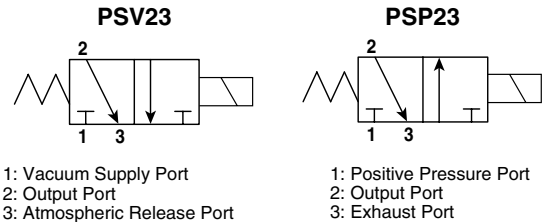
# PSP23



For Blow-off Control  
 (Positive Pressure)

## Features

- **Lightweight, Compact, Direct Acting, 10mm Wide Solenoid Valve**
- **PSV23 Normally Closed, 3-Way for Centralized Vacuum Systems**
- **PSP23 Normally Closed, 3-Way for Blow-off Control**
- **Vacuum Leakage is Reduced to Less Than .6 inHg / min (At 26.5 inHg, 1.22 cu. in.)**
- **5 ms Response Time**
- **Manifolds up to 20 Stations are Available**

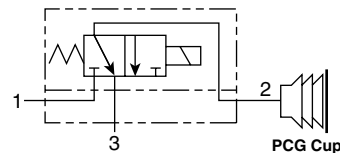
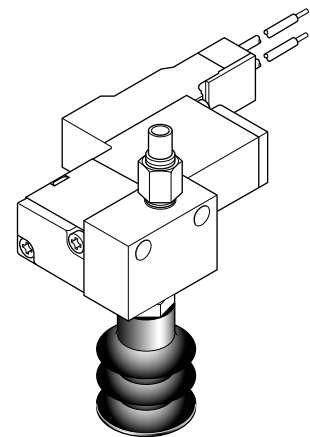


## Applications

The PSV23 valve can be used for vacuum applications where a central vacuum system is used for creating the negative pressure for vacuum. The 10mm wide valve can be mounted on a single subbase for point of use applications or manifolds for a centralized control. As shown, the single subbase can be used to mount the valve and vacuum cup together reducing overall mounting space.

The PSP23 valve can be used for positive pressure applications up to 72.5 PSI. This valve can be used for blow-off functions to break the vacuum pressure.

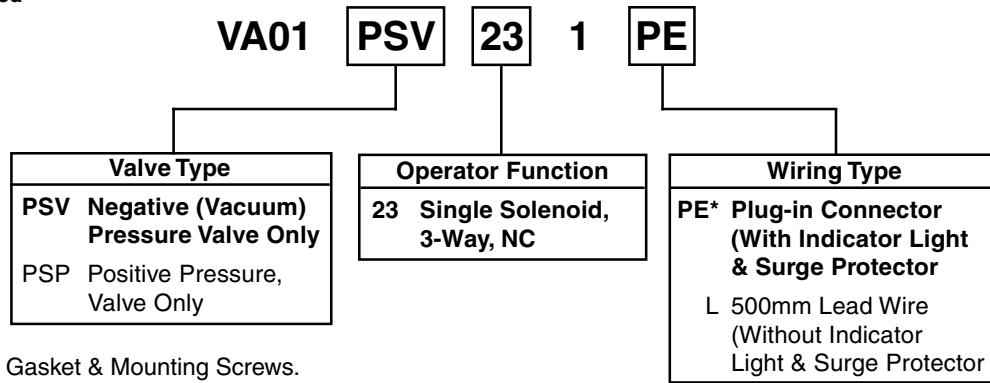
Applying positive pressure to PSV23 or negative pressure to PSP23 will cause air leakage or operational failure.





## Valve Model Number Index

Bold Items Are Stocked



**Note:** Valve includes Gasket & Mounting Screws.

\* Includes 500mm Connector

## Specifications

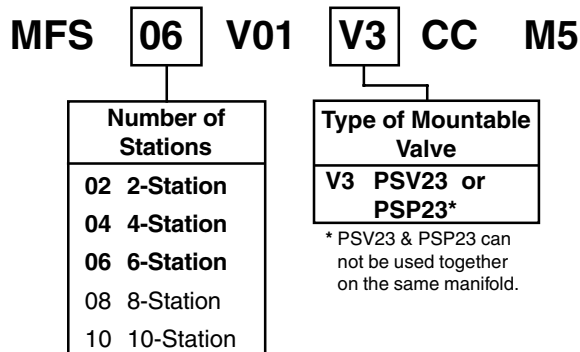
Model Number	VA01PSV23	VA01PSP23
<b>Media</b>	Air	
<b>Port Size</b>	M5 Female	
<b>Flow</b>	<b>Vacuum</b>	.78 SCFM@29.5 inHg
	<b>Vacuum Break</b>	—
		1.4 SCFM@72.5 PSI
<b>Pressure Range</b>	0 to 29.5 inHg	0 to 72.5 PSI
<b>Proof Pressure</b>	.3 mPa (43.5 PSI)	.75 mPa (108.7 PSI)
<b>Ambient Temperature</b>	14 to 122°F (-10 to 50°C)	
<b>Response Time</b>	<b>ON</b>	5 ms or Less
	<b>Off</b>	5 (10) ms or Less
<b>Rated Voltage</b>	24VDC	
<b>Permissible Voltage Fluctuation</b>	± 10%	
<b>Heat Resistance Grade</b>	Grade B	
<b>Power Consumption</b>	2W	
<b>Wiring</b>	Lead Wire, Connector with Lead Wire	
<b>Vibration Resistance</b>	150 m/s <sup>2</sup>	
<b>Shock Resistance</b>	50 m/s <sup>2</sup>	
<b>Mass</b>	.88 oz. (25 g.)	

**Note:** When using the valve for vacuum break at less than 41°F (5°C) by supplying compressed air, use dry air passing through an air dryer to prevent dew condensation and freezing.

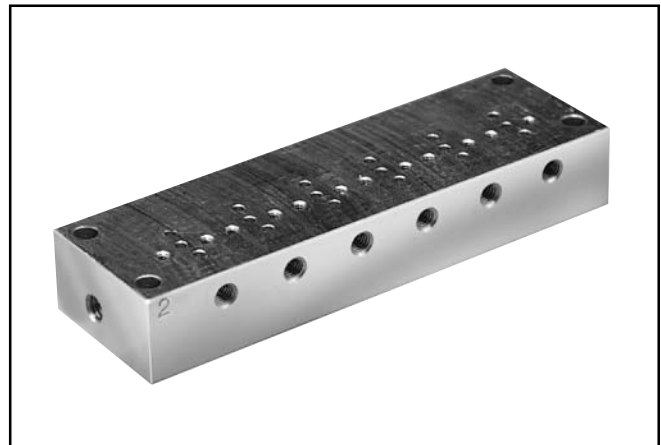
Response time in bracket ( ) shows with surge suppressor.

## Manifold Model Number Index

Bold Items Are Standard



**Note:** Valve manifolds available up to 20 stations and in odd or even numbers. Consult Factory for availability.



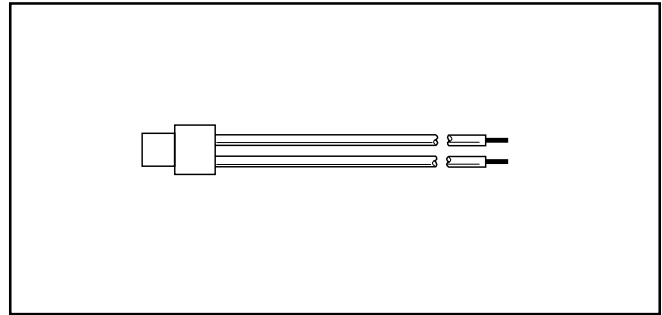


## Individual Wired Connectors

Size	Voltage	Length	Part Number
PSV23	DC	.5 meter	<b>PC2D23CL5*</b>
PSP23		1 meter	<b>PC2D23CL10</b>

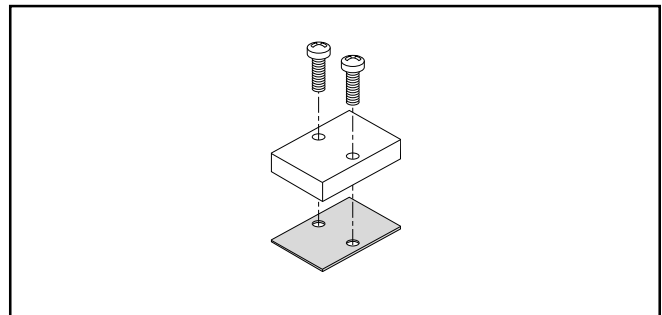
DC Voltage: Positive "+" (Red Wire)  
 Negative "-" (Black Wire)

\* PC2D23CL5 Connector included with valve.



## Blanking Plate

Size	Type	Part Number
PSV23 PSP23	Manifold	<b>V23BP</b>



## Subbase

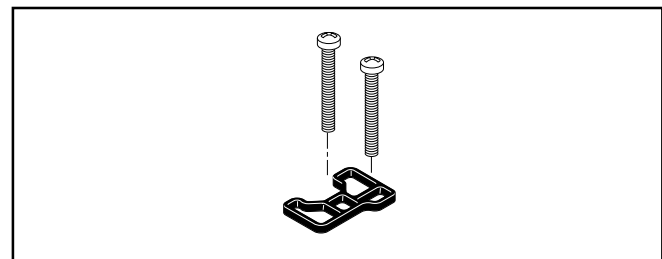
Model Number	All Ports
<b>V33SBM5</b>	M5

Mounting screws and gaskets included with valve.



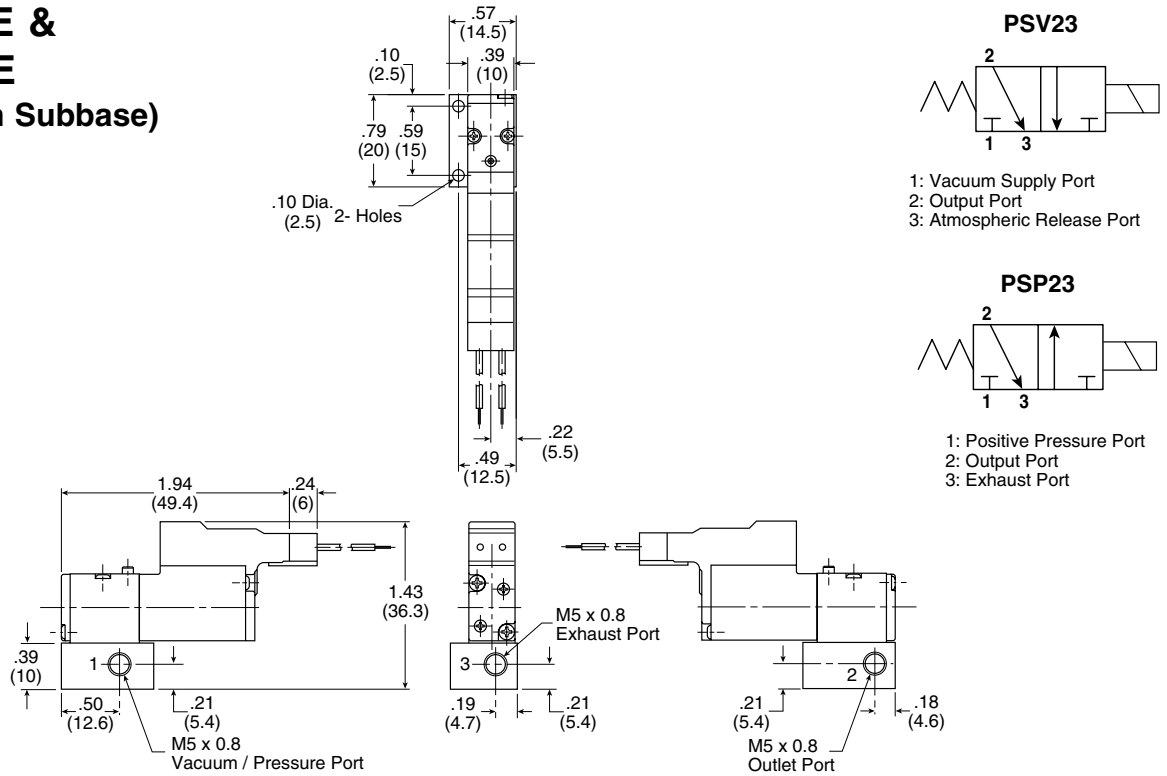
## Base Gasket Kits (Included with Valve)

Part Number	Type
<b>V23SG</b>	Subbase & Manifold

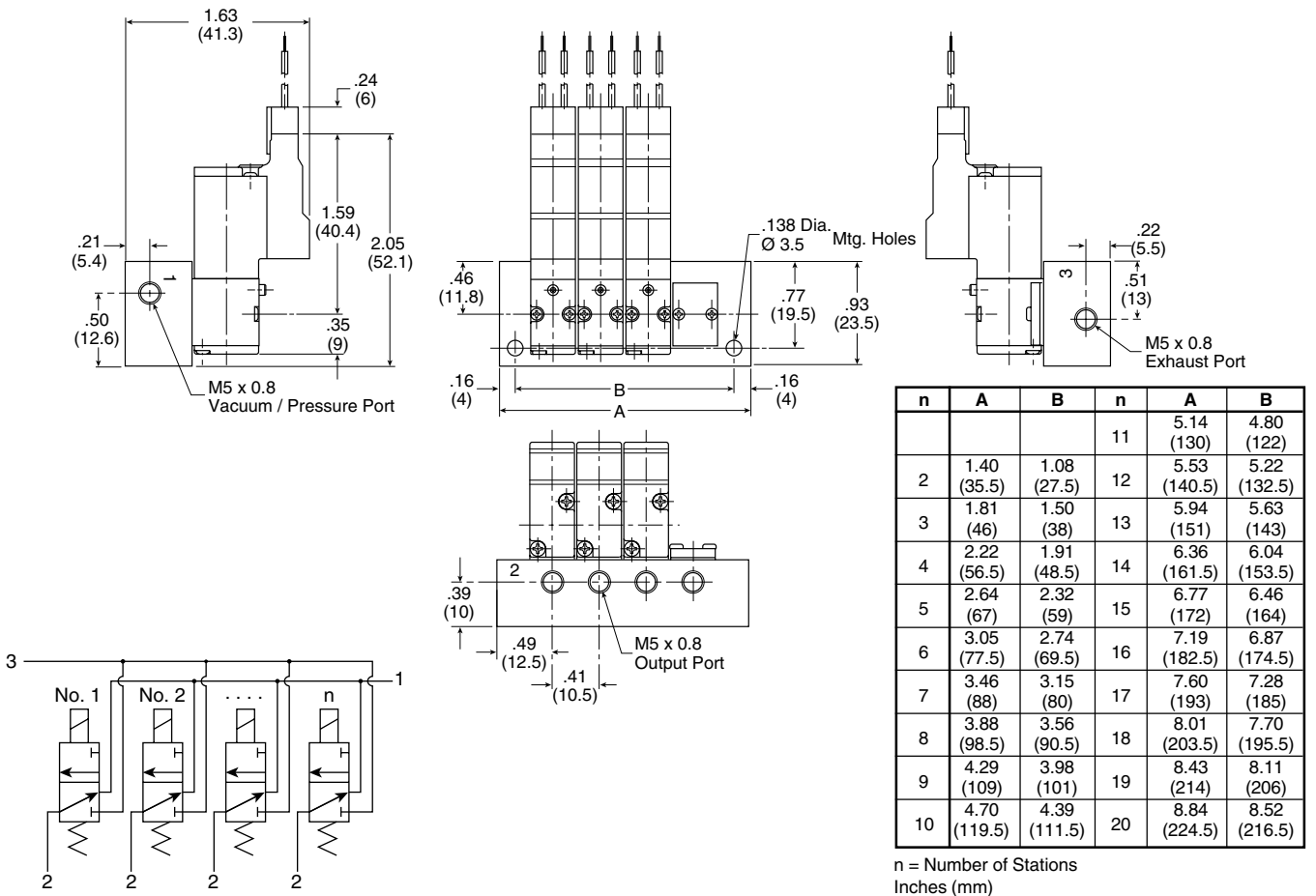




**PSV231PE &  
 PSP231PE**  
 (Shown with Subbase)



**Manifold Assembly**



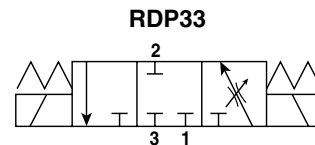


# RDP33



## Features

- **Lightweight, Compact, Direct Acting, 10mm Wide Solenoid Valve**
- **3-Way, 3-Position Blocked Center Valve for Use with Centralized Vacuum Systems**
- **One Valve for Both Vacuum Control and Blow-off Control**
- **5 ms Response Time**
- **Built-in Throttle Valve for Regulating Blow-off Adjustment**
- **Vacuum Leakage is Reduced to Less Than .6 inHg / min (At 26.5 inHg, 1.22 cu. in.)**
- **Inline Mount or Manifolds up to 20 Stations are Available**

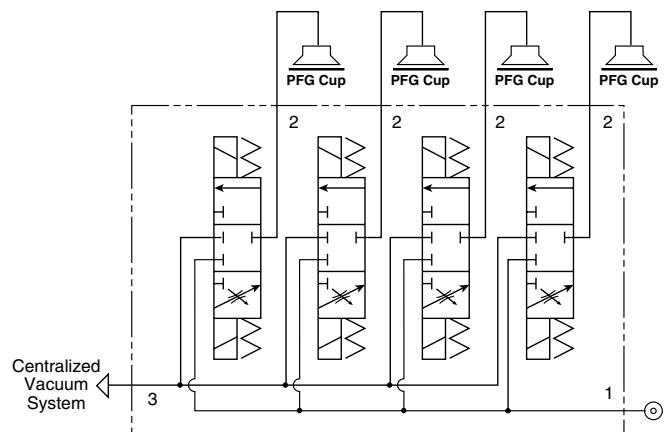


1: Positive Pressure Supply Port  
 2: Output Port  
 3: Vacuum Supply Port

## Applications

The PEP33 3-Way, 3-Position Poppet valve, is used for vacuum applications with centralized vacuum system and blow-off functions in one valve body. This valve eliminates the need for 2 separate 3-Way valves.

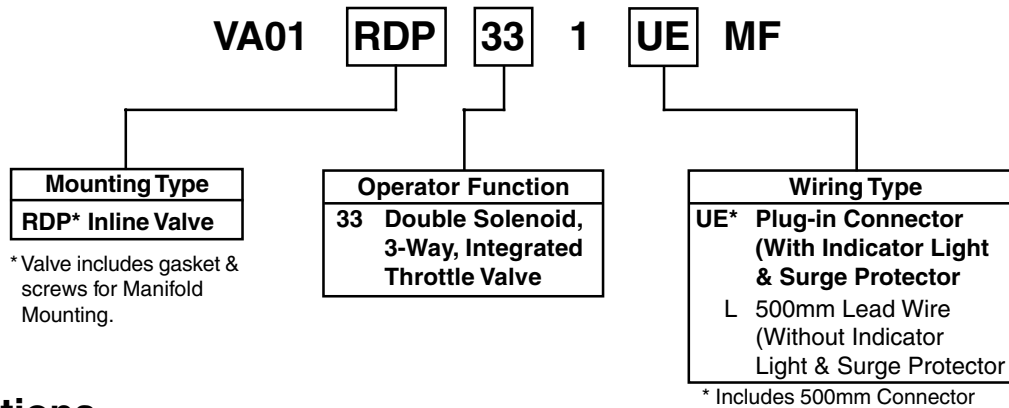
A built in Blow-off Throttle Valve allows the blow-off flow to be regulated at the valve for each application. The same 10mm wide valve can mounted as an inline valve close the application or on a manifold for centralized control. The working port is blocked in the center condition keeping vacuum leakage to a minimum.





## Valve Model Number Index

Bold Items Are Standard



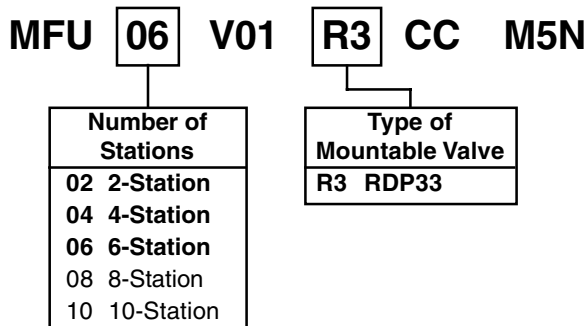
## Specifications

<b>Model Number</b>		<b>VA01RDP33</b>
<b>Media</b>		Air
<b>Port Size</b>		M5 Female
<b>Flow</b>	<b>Vacuum</b>	0.35 SCFM @ 29.5 inHg (Port 3 to 2)
	<b>Vacuum Break</b>	0.29 SCFM @ 72.5 PSI (Port 1 to 2)
<b>Pressure Range</b>		29.5 inHg to 72.5 PSI
<b>Proof Pressure</b>		.3 mPa (43.5 PSI) .75 mPa (108.7 PSI)
<b>Ambient Temperature</b>		14 to 122°F (-10 to 50°C)
<b>Response Time</b>	<b>ON</b>	5 ms or Less
	<b>Off</b>	5 (20) ms or Less
<b>Rated Voltage</b>		24VDC
<b>Permissible Voltage Fluctuation</b>		± 10%
<b>Heat Resistance Grade</b>		Grade B, J154003
<b>Power Consumption</b>	<b>L Type</b>	0.5W
	<b>U Type</b>	0.55W
<b>Wiring</b>		Lead Wire, Connector with Lead Wire
<b>Vibration Resistance</b>		150 m/s <sup>2</sup>
<b>Shock Resistance</b>		50 m/s <sup>2</sup>
<b>Mass</b>		1.59 oz. (45 g.)

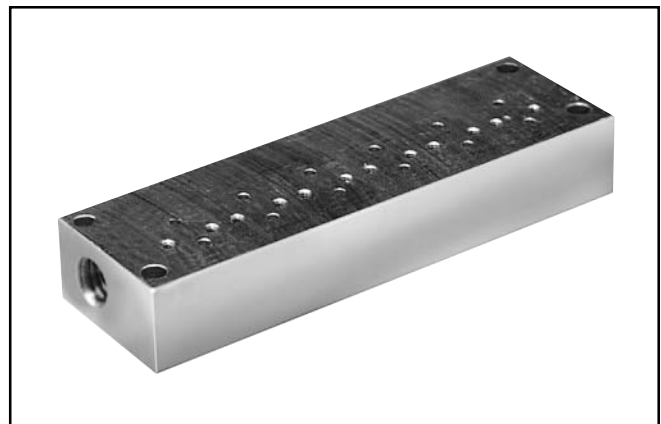
Note: When using the valve for vacuum break at less than 41°F (5°C) by supplying compressed air, use dry air passing through an air dryer to prevent dew condensation and freezing.  
 Response time in bracket ( ) shows with surge suppressor.

## Manifold Model Number Index

Bold Items Are Standard



NOTE: Valve manifolds available up to 20 stations and in even and odd numbers. Consult Factory for availability



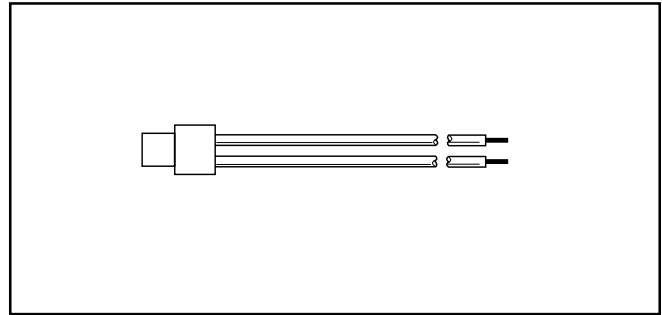


## Individual Wired Connectors

Size	Voltage	Length	Part Number
RDP33	DC	.5 meter	<b>PC2D23CL5*</b>
		1 meter	<b>PC2D23CL10</b>

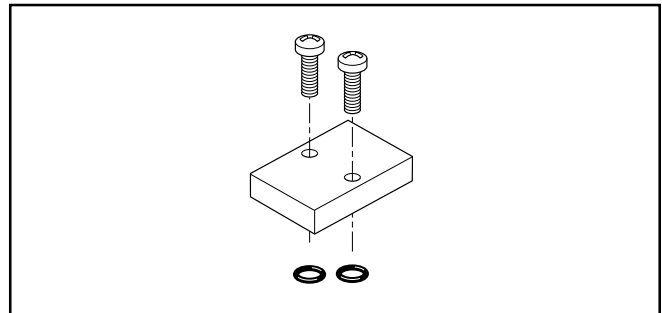
DC Voltage: Positive "+" (Red Wire)  
 Negative "-" (Black Wire)

\* PC2D23CL5 Connector included with valve.



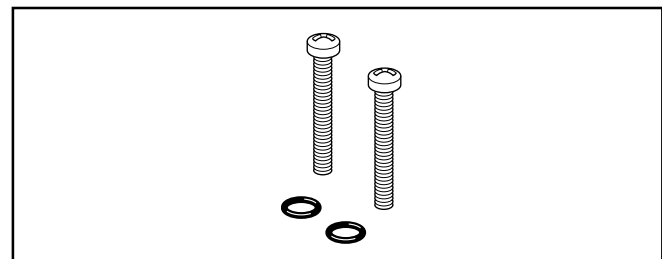
## Blanking Plate

Size	Type	Part Number
RDP33	Manifold	<b>V33BP</b>



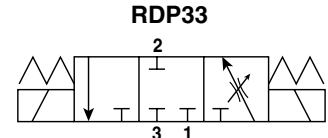
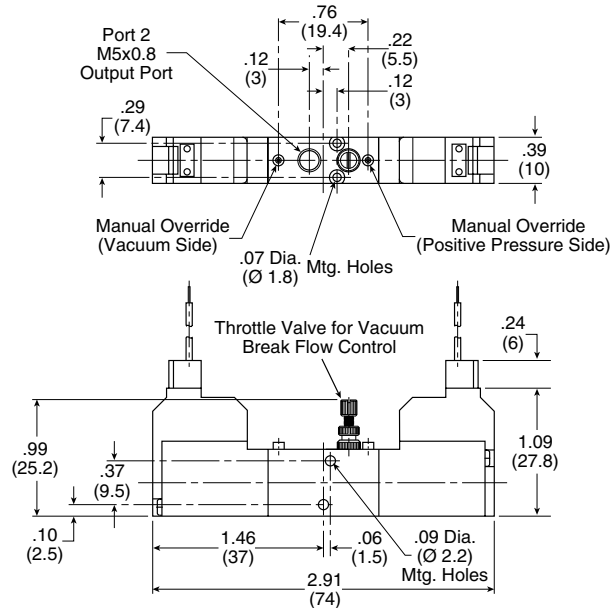
## Base Gasket Kits (Included with Valve)

Part Number	Type
<b>V33SG</b>	Subbase & Manifold



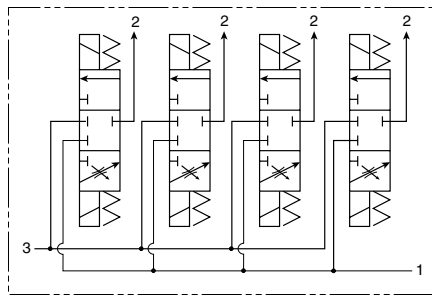
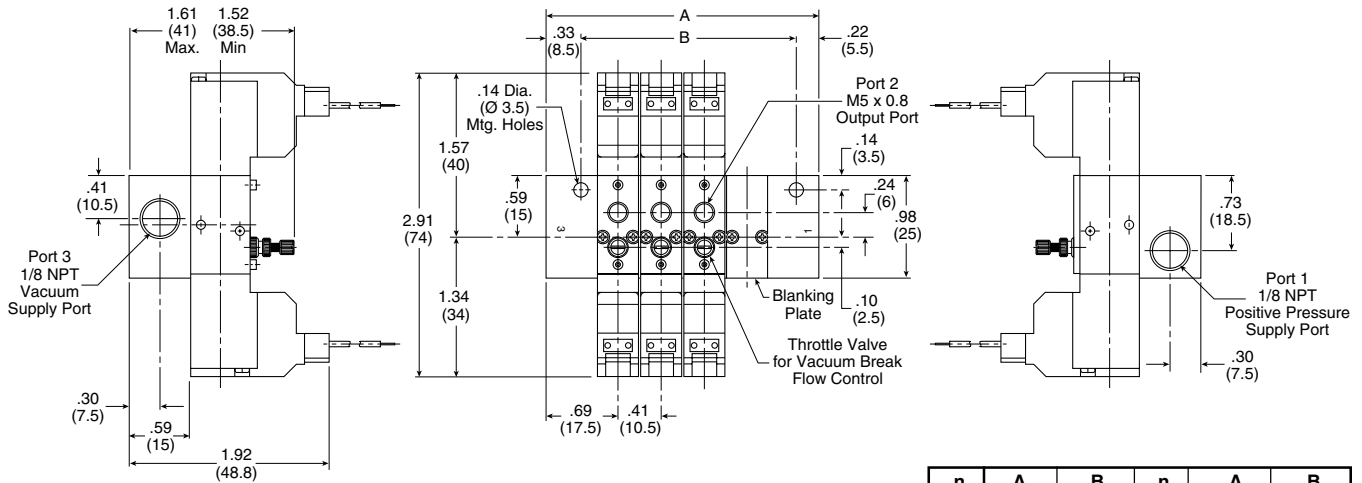


**RDP33**



1: Positive Pressure Supply Port  
 2: Output Port  
 3: Vacuum Supply Port

**Manifold Assembly**



n	A	B	n	A	B
			11	5.51 (140)	4.80 (123)
2	1.79 (45.5)	1.08 (28.5)	12	5.93 (150.5)	5.22 (133.5)
3	2.20 (56)	1.50 (39)	13	6.34 (161)	5.63 (144)
4	2.62 (66.5)	1.91 (49.5)	14	6.75 (171.5)	6.04 (154.5)
5	3.03 (77)	2.32 (60)	15	7.17 (182)	6.46 (165)
6	3.44 (87.5)	2.74 (70.5)	16	7.58 (192.5)	6.87 (175.5)
7	3.86 (98)	3.15 (81)	17	7.99 (203)	7.28 (186)
8	4.27 (108.5)	3.56 (91.5)	18	8.41 (213.5)	7.70 (196.5)
9	4.69 (119)	3.98 (102)	19	8.82 (224)	8.11 (207)
10	5.10 (129.5)	4.39 (112.5)	20	9.23 (234.5)	8.52 (217.5)

n = Number of Stations  
 Inches (mm)

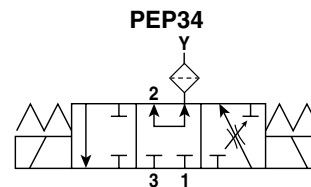


# PEP34



## Features

- **Lightweight, Compact, Direct Acting, 10mm Wide Solenoid Valve**
- **3-Way, 3-Position Exhaust Center Valve for Use with Centralized Vacuum Systems**
- **One Valve for Both Vacuum Control and Blow-off Control**
- **5 ms Response Time**
- **Built-in Throttle Valve for Regulating Blow-off Adjustment**
- **Manifolds up to 12 Stations are Available**
- **130 Micron Filter in Atmospheric Relief Port**



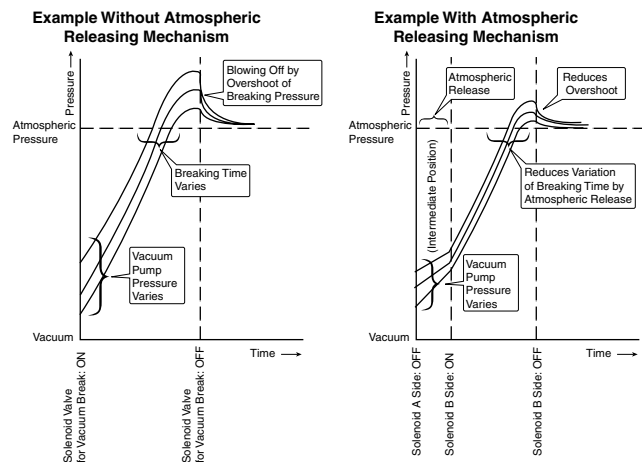
1: Positive Pressure Supply Port  
 2: Output Port  
 3: Vacuum Supply Port  
 Y: Atmospheric Release Port

## Applications

The PEP34 3-Way, 3-Position Poppet valve, is used for vacuum applications with centralized vacuum system and blow-off functions in one valve body. This valve eliminates the need for 2 separate 3-Way valves.

A built in Blow-off throttle valve allows the blow-off flow to be regulated at the valve for each application. The same 10mm wide valve can mounted as an inline valve close the application or on a manifold for centralized control.

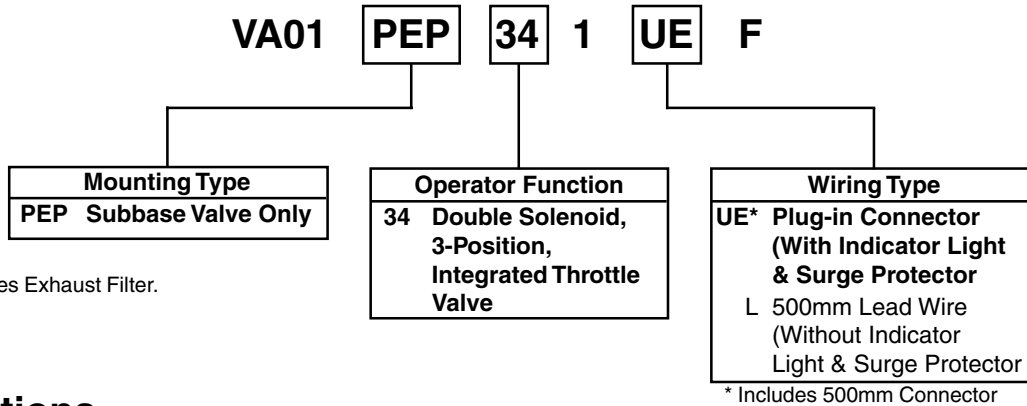
The working port is open to atmosphere in the center condition. In the transition from Vacuum to Blow-off, this atmospheric port helps reduce the time to break the seal of the part and reduces the possibility of parts around the blow-off from being moved. More consistent blow off times can be realized and when detaching the part, re-attraction after the vacuum seal is broken is eliminated.





## Valve Model Number Index

Bold Items Are Standard



Note: Valve includes Exhaust Filter.

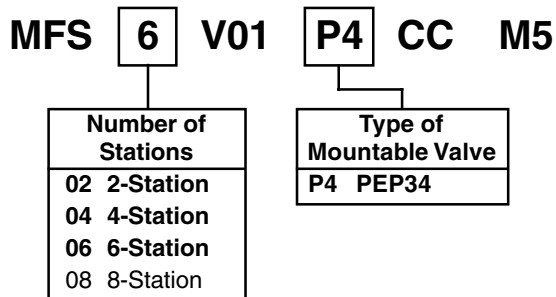
## Specifications

<b>Model Number</b>		<b>VA01PEP34</b>
<b>Media</b>		Air
<b>Port Size</b>		M5 Female
<b>Flow</b>	<b>Vacuum</b>	0.71 SCFM@29.5 inHg (Port 3 to 2)
	<b>Vacuum Break</b>	0.50 SCFM@72.5 PSI (Port 1 to 2)
<b>Pressure Range</b>		29.5 inHg to 72.5 PSI
<b>Proof Pressure</b>		.75 mPa (108.7 PSI)
<b>Ambient Temperature</b>		14 to 122°F (-10 to 50°C)
<b>Response Time</b>	<b>ON</b>	5 ms or Less
	<b>Off</b>	5 ms or Less
<b>Rated Voltage</b>		24VDC
<b>Permissible Voltage Fluctuation</b>		± 10%
<b>Heat Resistance Grade</b>		Grade B, J154003
<b>Power Consumption</b>	<b>Holding</b>	0.9W
	<b>Inrush</b>	4W
<b>Wiring</b>		Lead Wire, Connector with Lead Wire
<b>Vibration Resistance</b>		150 m/s <sup>2</sup>
<b>Shock Resistance</b>		50 m/s <sup>2</sup>
<b>Mass</b>		1.98 oz. (56 g.)

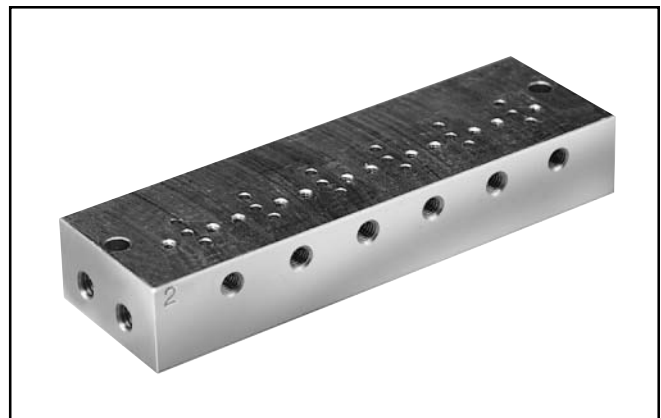
Note: When using the valve for vacuum break at less than 41°F (5°C) by supplying compressed air, use dry air passing through an air dryer to prevent dew condensation and freezing.

## Manifold Model Number Index

Bold Items Are Standard



NOTE: Valve manifolds available up to 12 stations and in even and odd numbers. Consult Factory for availability



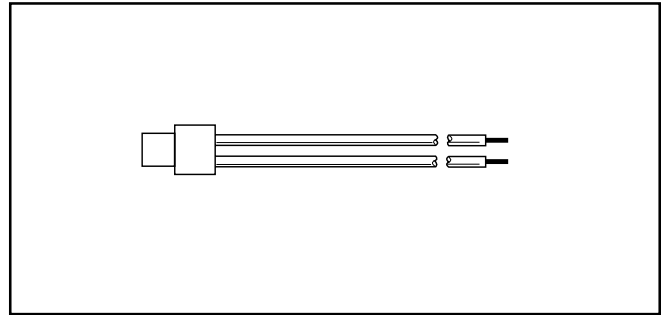


## Individual Wired Connectors

Size	Voltage	Length	Part Number
PEP34	DC	.5 meter	<b>PC2D23CL5*</b>
		1 meter	<b>PC2D23CL10</b>

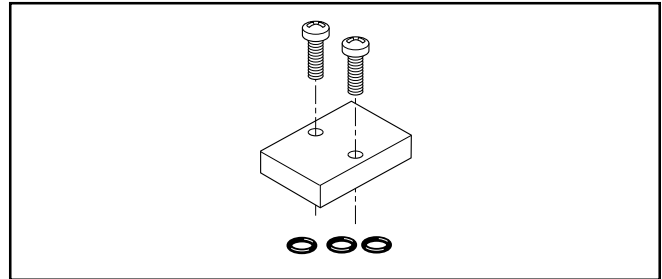
DC Voltage: Positive "+" (Red Wire)  
 Negative "-" (Black Wire)

\* PC2D23CL5 Connector included with valve.



## Blanking Plate

Size	Type	Part Number
PEP34	Manifold	<b>V34BP</b>



## Subbase

Model Number	All Ports
<b>V34SBM5</b>	M5

Mounting screws and gaskets included with valve.



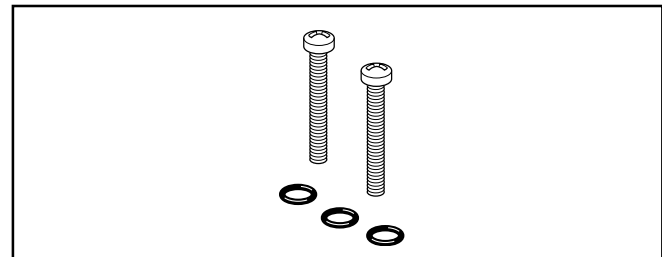
## Replacement Filter

Part Number	Type
<b>V34F</b>	130m Filter, Package of 10



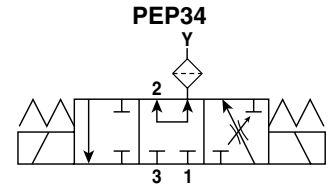
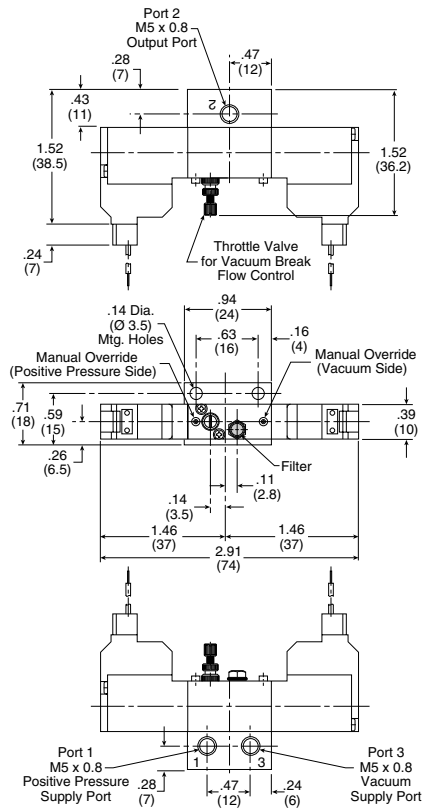
## Base Gasket Kits (Included with Valve)

Part Number	Type
<b>V34SG</b>	Subbase & Manifold



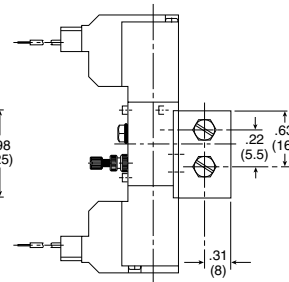
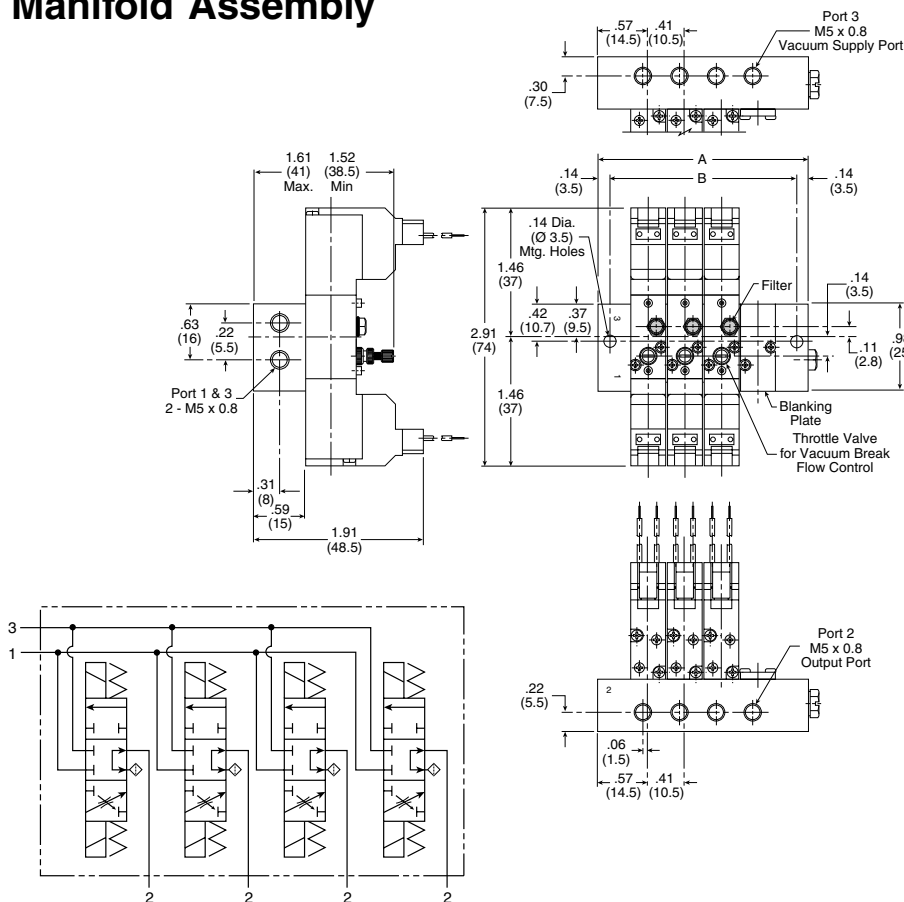


**PEP34**  
**Subbase**



1: Positive Pressure Supply Port  
 2: Output Port  
 3: Vacuum Supply Port  
 Y: Atmospheric Release Port

**Manifold Assembly**



n	A	B	n	A	B
			7	3.62 (92)	3.35 (85)
2	1.56 (39.5)	1.28 (32.5)	8	4.04 (102.5)	3.76 (95.5)
3	1.97 (50)	1.69 (43)	9	4.45 (113)	4.17 (106)
4	2.38 (60.5)	2.11 (53.5)	10	4.86 (123.5)	4.59 (116.5)
5	2.80 (71)	2.52 (64)	11	5.28 (134)	5.00 (127)
6	3.21 (81.5)	2.93 (74.5)	12	5.69 (144.5)	5.41 (137.5)

n = Number of Stations  
 Inches (mm)







