

HYVAC PRODUCTS, INC.

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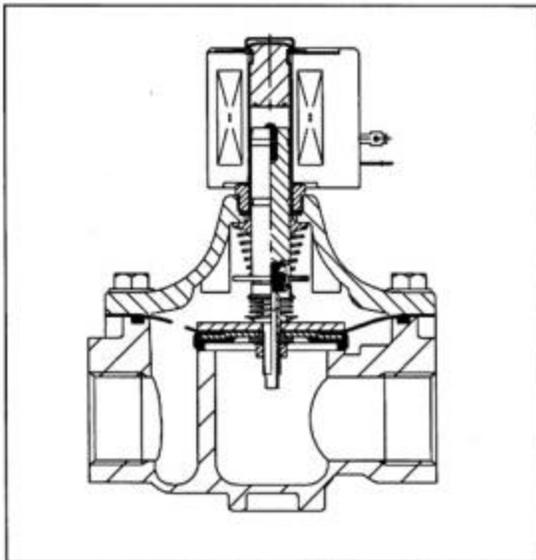
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Solenoid Valves

Solenoid valves sold by HyVac come in two basic types those rated to 29.5" mercury vacuum and those rated for 10^{-6} Torr, which is higher vacuum. They come in two basic configurations "normally open" and "normally closed". They all function by using electro-magnetic power to drive a piston or diaphragm. A normally open valve is open when no electricity is supplied to the coil. A normally closed valve is closed when there is no power supplied. Usually the normally closed valves are used to maintain vacuum in systems and the normally open valves are used as "vacuum breakers". Because they are electrically actuated, there is no need for air power and all one needs is electricity. It also means they can be used in conjunction with

programmable logic controllers or digital acquisition systems if unattended operation is desired.



HyVac has various sized valves for your consideration. They come standard with a female national pipe thread (NPT) fitting on both sides of the valve. They

are rated at 115V 60 Hz although other electrical configurations are available including 24VDC, 220V, 380V, 480V coils and 50Hz



frequency. Standard as listed is a brass body, standard elastomers and a regular housing. Optional housing is explosion proof. Optional body is stainless steel.

Operating Temp. 32-125 Deg F. Operability to 180 Deg C with modifications and options. These are direct acting valves and have relatively quick response times. For the 1/4"-1/2" valves we have a response time number of between 10-20 msec. Special elastomers for chemically specific applications.

All valves outlined below are 115V 60Hz. Pricing for high vacuum 10^{-6} pressures. The 29.5" certified valves are less for same size valve. Pricing is brass bodies, standard electric and seals.

Solenoid Valves cont.

Pipe Size (ins.)	Orifice Size (ins.)	Cv Flow Factor	Operating Pressure Differential		Body Material	Med. Vacuum to 10-3 Torr	High Vacuum to 10 -6 Torr	Constr. Ref. No.	Watt Rating/ Class of Coil Insulation AC
			Min.	Max.		Catalog Number	Catalog Number		
			NORMALLY CLOSED (Closed when de-energized)						
1/4"	9/32"	1.0	0	15	Brass	P90703-399-Z	P90703-399	1	6.1/F
3/8"	3/8"	1.8	0	15	Brass	P90703-400-Z	P90703-400	2	10.1/F
1/2"	7/16"	2.8	0	15	Brass	P90703-401-Z	P90703-401	3	16.1/F
3/4"	3/4"	5.0	0	15	Brass	P90703-402-Z	P90703-402	4	17.1/F
1"	1 5/8"	20.5	0	15	Aluminum	P90703-406-Z	P90703-406	8	16.1/F
1 1/4"	1 5/8"	31.7	0	15	Aluminum	P90703-407-Z	P90703-407	8	16.1/F
1 1/2"	1 5/8"	32.7	0	15	Aluminum	P90703-408-Z	P90703-408	9	16.1/F
NORMALLY OPEN (Closed when de-energized)									
3/8"	5/8"	3.0	0	15	Brass	P90703-400-1Z	P90703-400-1	6	10.1/F
1/2"	5/8"	4.0	0	15	Brass	P90703-401-1Z	P90703-401-1	6	10.1/F
3/4"	3/4"	5.5	0	15	Brass	P90703-402-1Z	P90703-402-1	7	10.1/F
1"	1 5/8"	20.5	0	15	Aluminum	P90703-406-1Z	P90703-406-1	11	16.1/F
1 1/4"	1 5/8"	31.7	0	15	Aluminum	P90703-407-1Z	P90703-407-1	11	16.1/F
1 1/2"	1 5/8"	32.7	0	15	Aluminum	P90703-408-1Z	P90703-408-1	12	16.1/F

Notes: Valves must be mounted with solenoid vertical and upright.

On 50 hertz service, the rating for the 6.1/F solenoid is 8.1 watts.

Other sizes, materials of construction available, but usually, are a special order.

There are 3 way solenoids also available but reaction time is not as fast as pressure equalization that occurs during switching. They are typically only rated to 29" Hg vacuum.

Users wanting to run to maximum benefit should consider a programmable logic controller or digital acquisition system to control valve actuation in shut down and startup modes. A delay needs to be incorporated into set up to assure vacuum pressure maintained at shut down if pressures less than 29.5" Hg need to be held in system.

These valves come standard with female national pipe thread fittings on the inlet and outlet ports. Various adapters are available including conversion to QF/NW/ISO standard vacuum rated flanges often used in vacuum and high vacuum systems.

We also have true high vacuum valves either pneumatic or manual terminated with NW/QF fittings. We manufacture numerous vacuum fittings to adapt to most systems and pumps.

Solenoid Valves cont.

Normally Closed

HyVac Part#	Description	Price
P90703-399	1/4" Nor.Closed	\$165.38
P90703-400	3/8" Nor.Closed	\$220.30
P90703-401	1/2" Nor.Closed	\$222.06
P90703-402	3/4" Nor.Closed	\$240.17
P90703-406	1" Nor.Closed	\$344.50
P90703-407	1 1/4" Nor.Closed	\$397.50
P90703-408	1 1/2" Nor.Closed	\$426.51

Normally Open

HyVac Part#	Description	Price
P90703-399-1	1/4" Nor.Open	\$332.31
P90703-400-1	3/8" Nor.Open	\$328.60
P90703-401-1	1/2" Nor.Open	\$328.60

Other Sizes Price Available Upon Request.