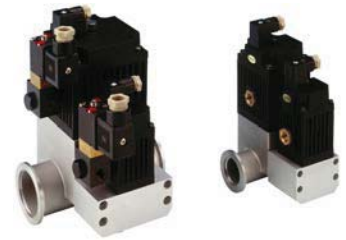


SIPVP Soft-Start Isolation Valves



Soft-start, pneumatically operated, in-line valves with interchangeable orifices for the controlled pumpdown of processes where turbulent flow can cause problems with particulate contamination. Slave and master valve combination allows slow initial pumping to minimise disturbance. Both slave and master valves require separate pneumatic connections.



Features & Benefits

- MTTF of 5000000 cycles
- Controlled pump down to match process
- Aluminum bodies
- Fast acting valves in the event of power failure
- Supplied with 5 mm, 6 mm and 7 mm interchangeable orifices

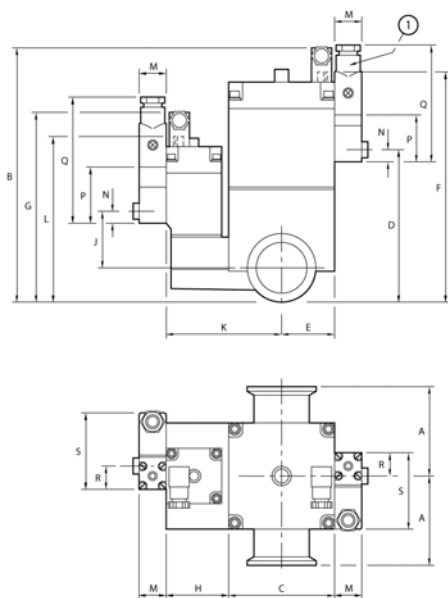
Applications

When the slave valve is opened gas flows at a low rate between the two sides of the valve through interchangeable orifices allowing slow pumping. Having reached a predetermined pressure level specified by the user, the master valve is opened by means of a user supplied signal allowing full bore pumping.

The bellows sealed valves are single acting with pneumatic opening and spring closure. They are supplied with three interchangeable orifices to enable pumping characteristics to be matched to your process. A microswitch is supplied as standard to indicate valve status. Both the valve and the microswitch can be baked to 100°C to speed up degassing, and to prevent process gases from condensing inside the valve.

While designed primarily for the semiconductor industry the valve can also be used in other applications requiring controlled pump-down.

Dimensions

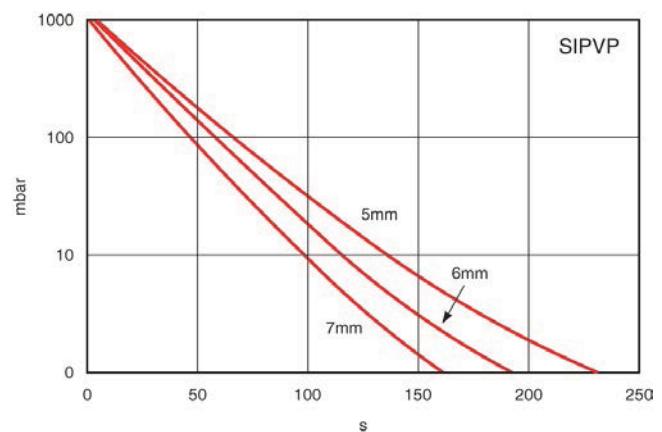


(mm)	A	B	C	D	E	F
SIPV25P	50	161.9	50.8	68.2	25.8	144.3
SIPV40P	65	192.2	76.2	68.2	38.2	174.6

(inches)	A	B	C	D	E	F
SIPV25P	1.95	6.31	1.98	2.66	1	5.63
SIPV40P	2.54	7.49	2.97	2.66	1.49	6.81

(mm) G=145, H=43.5, J=49, K=86, L=127, M=20, N=10, P=40, Q=88, R=19, S=59
 (inches) G=5.66, H=1.69, J=1.91, K=3.35, L=4.95, M=0.78, N=0.39, P=1.56, Q=3.43, R=0.74, S=2.3

Performance Curves



Typical pump-down curve of initial pumping phase with 80 m3h-1 pump on a 66l chamber

Technical Data

Valve actuation type	Single acting, pneumatically opened, spring closed
Pressure range	1×10^{-9} to 2100 mbar / 8×10^{-10} to 1575 Torr
Maximum pressure differential	
Opening	1000 mbar / 750 Torr
Closing	2100 mbar / 1575 Torr
Leak rate	10^{-9} mbar l s ⁻¹ / 10^{-10} Torr l s ⁻¹
Pneumatic connector	Rp 1/8 (1/8 inch BSP)*
Pneumatic operating pressure	2.8 to 4.2 bar / 41 to 61 psi
Electrical indicator	Single microswitch
Microswitch electrical rating	24 V, 1.5 A a.c. or d.c.
Max cycle frequency	900 h ⁻¹
Bellows reliability, MTTF	5000000 cycles
Ambient operating temperature	5 - 100 °C
Maximum baking temperature	100 °C
Construction materials	HE30TF aluminum
O-ring	Fluoroelastomer
Time to open/close at 4 bar (ms)	SIPV25P (SIPV40P)
Slave valve	60/20 (60/20)
Master valve	15/41 (50/155)
Weight (g / oz)	
SIPV25P	920 / 32
SIPV40P	1760 / 62

* With optional control valve fitted

Ordering Information

Product Description	Order No.
SIPV25P, pneumatic, bellows sealed, aluminium body	C41624000
SIPV40P, pneumatic, bellows sealed, aluminium body	C41644000
Accessories & Spares	Order No.
3 Port Electropneumatic Control Valve 110V a.c.	H06200126
3 Port Electropneumatic Control Valve 230V a.c.	H06200138
3 Port Electropneumatic Control Valve 24V a.c.	H06200125
3 Port Electropneumatic Control Valve 24V d.c.	H06200124