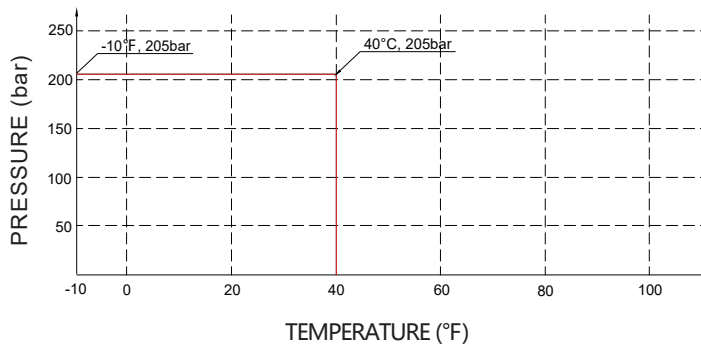


Product Feature

- Suitable for ultra-pure, flammable or toxic fluid lines in semiconductor manufacturing equipment and facilities
- Direct diaphragm construction with superior sealing performance, remarkable durability, compactness and particle free performance
- The product is fabricated in compliance with the VS001A process specification
- Valve open and closed position is easily visible at a glance
- Excellent gas displacement characteristics
- EP treatment is standard for all wetted surfaces
- Standard seat material is PCTFE, Polyimide is option

Temperature / Pressure Rating



1/4" pneumatic actuator



1/4" manual actuator



1/4" Right-angle handle



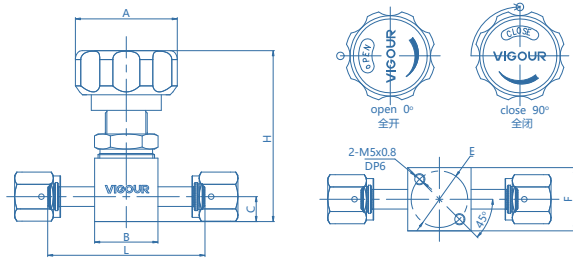
1/4" manual actuator (Lockable)

Technical Data

Max. Working Pressure:	3000 psig (200bar)
Actuation Pressure:	70~110 psig (5~8bar)
Max. Working Temp.:	-40°F ~ 159°F (-40°C ~ 71°C)
Surface finish:	10μin. Ra
Materials	
Body:	see ordering info
Diaphragm:	Elgiloy®
Seat packing:	PCTFE
Handle:	AL
Internal Leakage Allowance:	<1x10 ⁻⁹ mbar·l/s He
External Leakage Allowance:	<1x10 ⁻⁹ mbar·l/s He
Flow capacity:	pneumatic actuator Cv=0.23 manual actuator Cv=0.29
Weight:	approx 1.27kg (depending on connections or options)



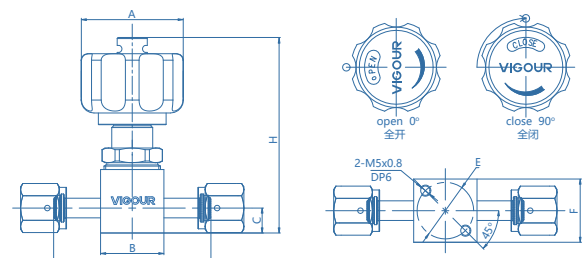
Dimensions (mm)



manual actuator (VFS female)

manual actuator

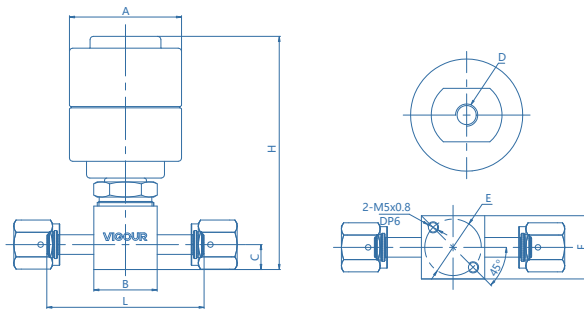
End Conections	Orifice (mm)	Dimensions (mm)							
		A	B	C	E	F	L	H	
1/4" VFS male	4.4	Φ47.5	28.4	11.2	Φ25.4	28.4	70.6	77	
1/4" VFS female	4.4	Φ47.5	28.4	11.2	Φ25.4	28.4	70.6	77	
3/8" VFS male	4.4	Φ47.5	28.4	11.2	Φ25.4	28.4	98	77	
3/8" VFS female	4.4	Φ47.5	28.4	11.2	Φ25.4	28.4	98	77	
1/4" Tube weld	4.4	Φ47.5	28.4	11.2	Φ25.4	28.4	53.8	77	
3/8" Tube weld	4.4	Φ47.5	28.4	11.2	Φ25.4	28.4	67.4	77	



manual actuator (VFS female) Position Lock

manual actuator (Position Lock)

End Conections	Orifice (mm)	Dimensions (mm)							
		A	B	C	E	F	L	H	
1/4" VFS male	4.4	Φ47.5	28.4	11.2	Φ25.4	28.4	70.6	91	
1/4" VFS female	4.4	Φ47.5	28.4	11.2	Φ25.4	28.4	70.6	91	
3/8" VFS male	4.4	Φ47.5	28.4	11.2	Φ25.4	28.4	98	91	
3/8" VFS female	4.4	Φ47.5	28.4	11.2	Φ25.4	28.4	98	91	
1/4" Tube weld	4.4	Φ47.5	28.4	11.2	Φ25.4	28.4	53.8	91	
3/8" Tube weld	4.4	Φ47.5	28.4	11.2	Φ25.4	28.4	67.4	91	



pneumatic actuator (VFS female)

pneumatic actuator (normally closed)

End Conections	Orifice (mm)	Dimensions (mm)							
		A	B	C	D	E	F	L	H
1/4" VFS male	4.4	Φ50.3	28.4	11.2	M5x0.8	Φ25.4	28.4	70.6	105
1/4" VFS female	4.4	Φ50.3	28.4	11.2	M5x0.8	Φ25.4	28.4	70.6	105
3/8" VFS male	4.4	Φ50.3	28.4	11.2	M5x0.8	Φ25.4	28.4	98	105
3/8" VFS female	4.4	Φ50.3	28.4	11.2	M5x0.8	Φ25.4	28.4	98	105
1/4" Tube weld	4.4	Φ50.3	28.4	11.2	M5x0.8	Φ25.4	28.4	53.8	105
3/8" Tube weld	4.4	Φ50.3	28.4	11.2	M5x0.8	Φ25.4	28.4	67.4	105

Ordering Information

VDV40UBS - M - A - MV4 - MV4 - VS - LO - P

Materials

S: 316L

Actuator

M: manual actuator

PC: pneumatic actuator (normally closed)

Flow Circuit Diagram

For details, refer to the flow circuit diagram on page 71.

End Connection

MV4: 1/4" VFS male

FV4: 1/4" VFS female

TW4: 1/4" tube weld

MV6: 1/2" VFS male 3/8" O.D.

FV6: 1/2" VFS female 3/8" O.D.

TW6: 3/8" tube weld

* Other connection standard, consult factory

Process Specification

None: VS001B

P: VS001A

* For details, please refer to the appendix.

Optional

None: Round Knob

LO: Round Knob

Pull, then turn to open lock out / tag out

L: Right-angle handle

Valve Seat Option

None: PCTFE (standard)

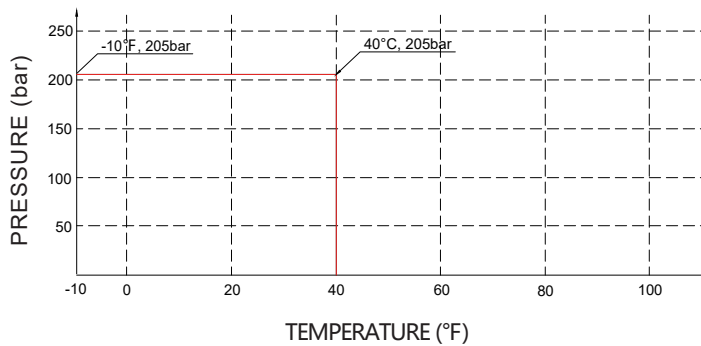
VS: Vespel®



Product Feature

- Suitable for ultra-pure, flammable or toxic fluid lines in semiconductor manufacturing equipment and facilities
- Direct diaphragm construction with superior sealing performance, remarkable durability, compactness and particle free performance
- Valve open and closed position is easily visible at a glance
- Excellent gas displacement characteristics
- EP treatment is standard for all wetted surfaces
- Standard seat material is PCTFE, Polyimide is option

Temperature / Pressure Rating



1/4" pneumatic actuator



1/4" manual actuator



1/4" Right-angle handle



1/4" manual actuator (Lockable)

Technical Data

Max. Working Pressure:	3000 psig (200bar)
Actuation Pressure:	70~110 psig (5~8bar)
Max. Working Temp.:	-40°F ~ 159°F (-40°C ~ 71°C)
Surface finish:	7µin. Ra

Materials

Body: see ordering info

Diaphragm: Elgiloy®

Seat packing: PCTFE

Handle: AL

Internal Leakage Allowance: <1x10⁻⁹ mbar·l/s He

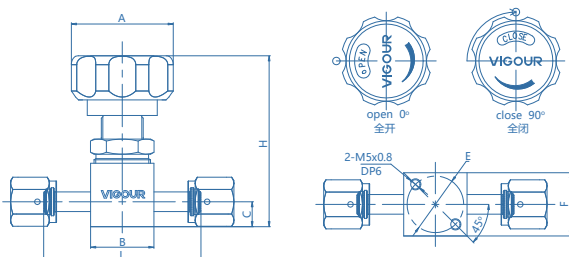
External Leakage Allowance: <1x10⁻⁹ mbar·l/s He

Flow capacity: pneumatic actuator Cv=0.23 manual actuator Cv=0.29

Weight: approx 1.27kg (depending on connections or options)



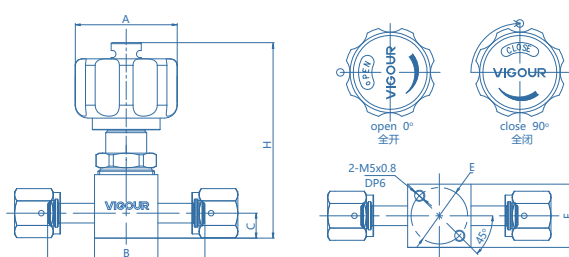
Dimensions (mm)



manual actuator (VFS female)

manual actuator

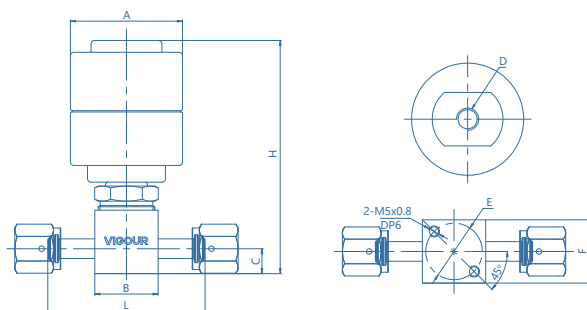
End Connections	Orifice (mm)	Dimensions (mm)						
		A	B	C	E	F	L	H
1/4" VFS male	4.4	Φ47.5	28.4	11.2	Φ25.4	28.4	70.6	77
1/4" VFS female	4.4	Φ47.5	28.4	11.2	Φ25.4	28.4	70.6	77
3/8" VFS male	4.4	Φ47.5	28.4	11.2	Φ25.4	28.4	98	77
3/8" VFS female	4.4	Φ47.5	28.4	11.2	Φ25.4	28.4	98	77
1/4" Tube weld	4.4	Φ47.5	28.4	11.2	Φ25.4	28.4	53.8	77
3/8" Tube weld	4.4	Φ47.5	28.4	11.2	Φ25.4	28.4	67.4	77



manual actuator (VFS female) Position Lock

manual actuator (Position Lock)

End Connections	Orifice (mm)	Dimensions (mm)						
		A	B	C	E	F	L	H
1/4" VFS male	4.4	Φ47.5	28.4	11.2	Φ25.4	28.4	70.6	91
1/4" VFS female	4.4	Φ47.5	28.4	11.2	Φ25.4	28.4	70.6	91
3/8" VFS male	4.4	Φ47.5	28.4	11.2	Φ25.4	28.4	98	91
3/8" VFS female	4.4	Φ47.5	28.4	11.2	Φ25.4	28.4	98	91
1/4" Tube weld	4.4	Φ47.5	28.4	11.2	Φ25.4	28.4	53.8	91
3/8" Tube weld	4.4	Φ47.5	28.4	11.2	Φ25.4	28.4	67.4	91



pneumatic actuator (VFS female)

pneumatic actuator (normally closed)

End Connections	Orifice (mm)	Dimensions (mm)						
		A	B	C	D	E	F	L
1/4" VFS male	4.4	Φ50.3	28.4	11.2	M5x0.8	Φ25.4	28.4	105
1/4" VFS female	4.4	Φ50.3	28.4	11.2	M5x0.8	Φ25.4	28.4	105
3/8" VFS male	4.4	Φ50.3	28.4	11.2	M5x0.8	Φ25.4	28.4	105
3/8" VFS female	4.4	Φ50.3	28.4	11.2	M5x0.8	Φ25.4	28.4	105
1/4" Tube weld	4.4	Φ50.3	28.4	11.2	M5x0.8	Φ25.4	28.4	105
3/8" Tube weld	4.4	Φ50.3	28.4	11.2	M5x0.8	Φ25.4	28.4	105

Ordering Information

VDV40UCSLV - M - A - MV4 - MV4 - VS - LO - P

Materials

SLV: 316L secondary remelt

Actuator

M: manual actuator

PC: pneumatic actuator (normally closed)

Flow Circuit Diagram

For details, refer to the flow circuit diagram on page 71.

End Connection

MV4: 1/4" VFS male

FV4: 1/4" VFS female

TW4: 1/4" tube weld

MV6: 1/2" VFS male 3/8" O.D.

FV6: 1/2" VFS female 3/8" O.D.

TW6: 3/8" tube weld

* Other connection standard, consult factory

Process Specification

P: VS001A

* For details, please refer to the appendix..

Optional

None: Round Knob

LO: Round Knob

Pull, then turn to open
lock out / tag out

L: Right-angle handle

Valve Seat Option

None: PCTFE (standard)

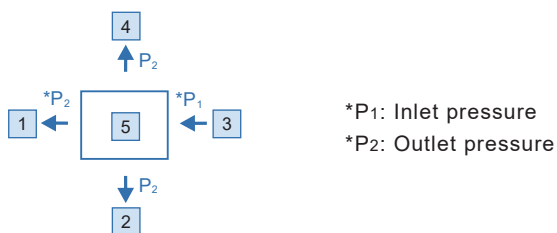
VS: Vespel®



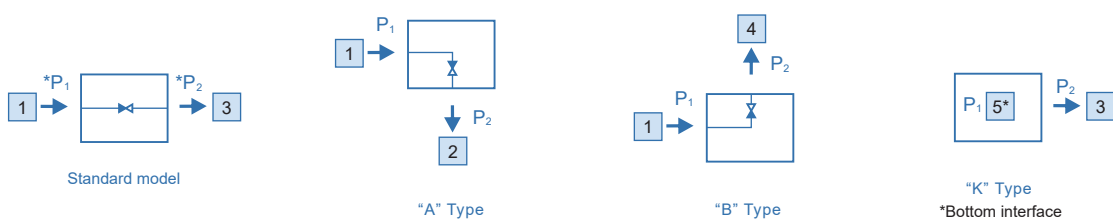
Diaphragm Valve Flow Circuit Diagram

VIGOUR

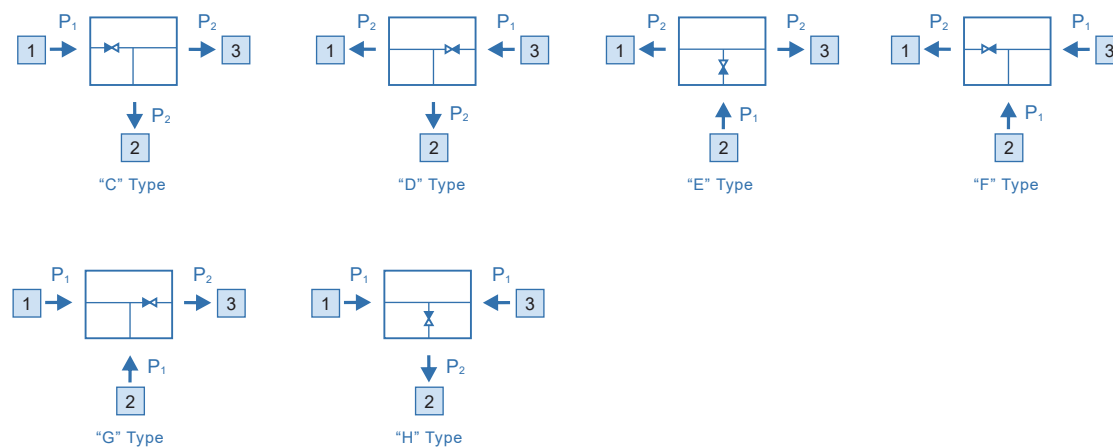
Ports Diagrammatic Drawing:



Two ports flow circuit diagram:



Three ports flow circuit diagram:



Four ports flow circuit diagram:

