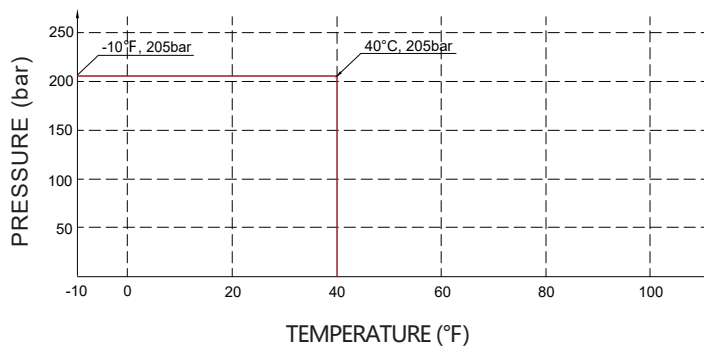


Product Feature

- 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 and dead-space-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 / PFA is option

Temperature / Pressure Rating



Technical Data

Max. Working Pressure:	3000 psig (200bar)
Actuation Pressure:	58~87psig (4~6bar)
Max. Working Temp.:	14°F ~ 104°F (-10°C ~ 40°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:	1/4" Cv=0.27 3/8" 1/2" Cv=0.5
Weight:	approx. 0.27kg (depending on connections or options)



1/4 Type



1/4 Type



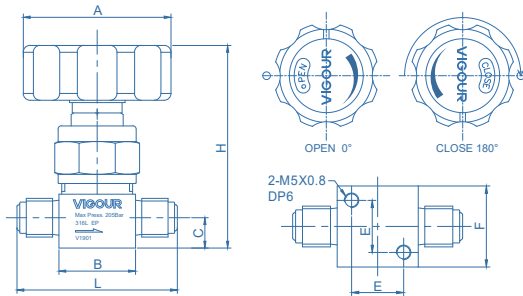
1/2 Type



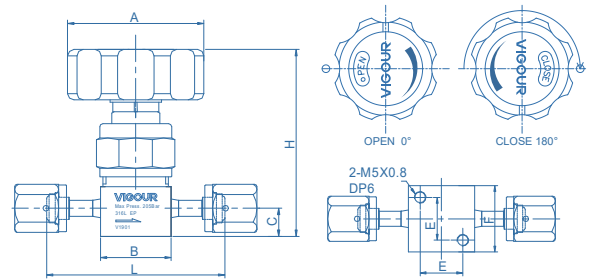
1/2 Type



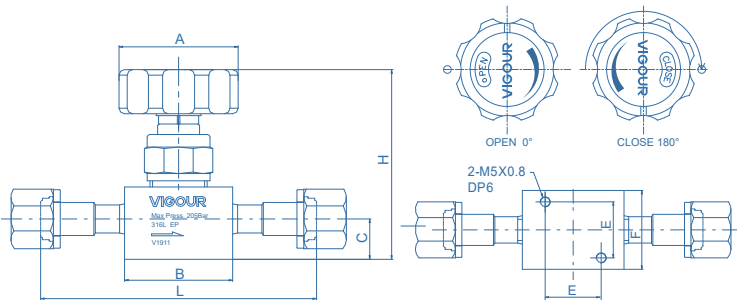
Dimensions (mm)



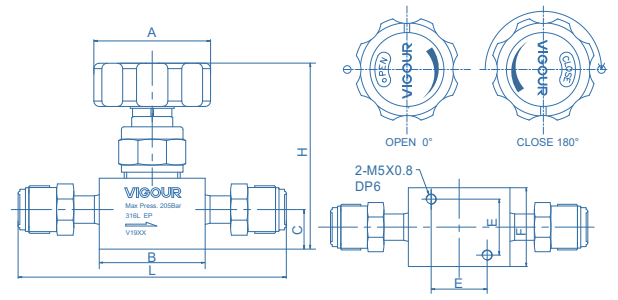
1/4 manual actuator (VFS male)



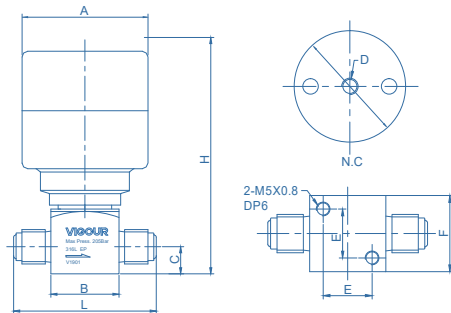
1/4 manual actuator (VFS female)



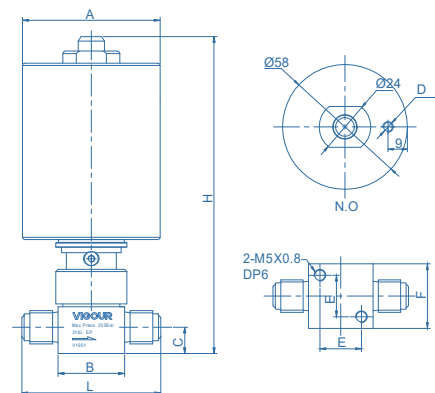
1/2 manual actuator (VFS female)



3/8, 1/2 manual actuator (VFS male)



1/4 pneumatic actuator N.C. (VFS male)

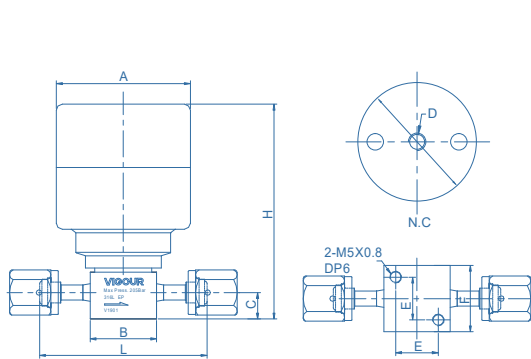


1/4 pneumatic actuator N.O. (VFS male)

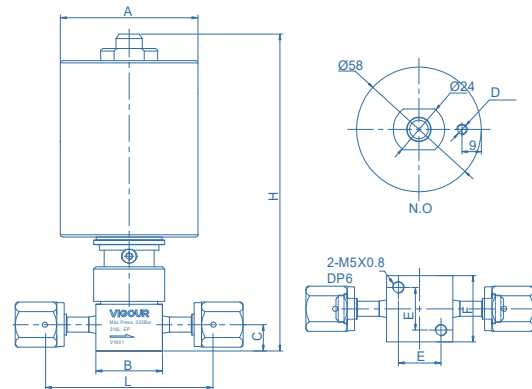


Diaphragm Valve VDV33UB Series

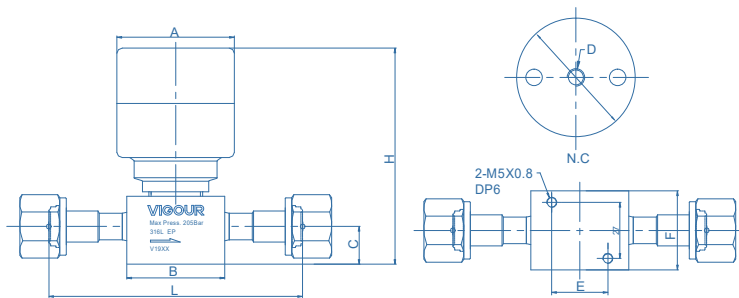
VIGOUR



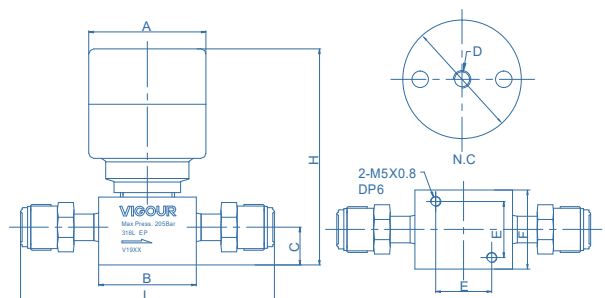
1/4 pneumatic actuator N.C. (VFS female)



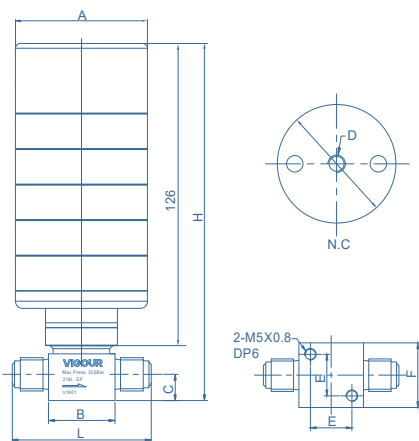
1/4 pneumatic actuator N.O. (VFS female)



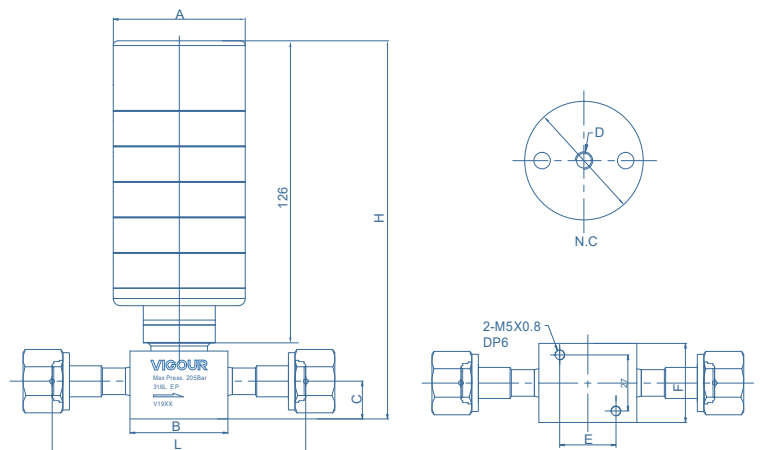
1/2 pneumatic actuator N.C. (VFS female)



3/8, 1/2 pneumatic actuator N.C. (VFS male)



1/4 pneumatic actuator N.C. (VFS male) HPC



3/8, 1/2 pneumatic actuator N.C. (VFS female) HPC



Dimensions (mm)

manual actuator

End Connections	Orifice (mm)	Dimensions (mm)						
		A	B	C	E	F	L	H
1/4" VFS male	4.4	Φ54	28	11.1	18	28	58.7	74
1/4" VFS female	4.4	Φ54	28	11.1	18	28	71.6	74
3/8" VFS male	7	Φ54	47.1	18.2	27	38	123.2	86
1/2" VFS male	7	Φ54	47.1	18.2	27	38	123.2	86
1/2" VFS female	7	Φ54	47.1	18.2	27	38	123.2	86

1/4", 3/8", 1/2" VFS fitting dimensions for reference, other connections please contact factory.

pneumatic actuator, normally opened / normally closed

End Connections	Actuator	Orifice (mm)	Dimensions (mm)							
			A	B	C	D	E	F	L	H
1/4" VFS male	N.C	4.4	Φ56.5	28	11.1	M5x0.8	18	28	58.7	90.5
1/4" VFS male	N.O	4.4	Φ58	28	11.1	M5x0.8	18	28	58.7	134
1/4" VFS female	N.C	4.4	Φ56.5	28	11.1	M5x0.8	18	28	71.6	90.5
1/4" VFS female	N.O	4.4	Φ58	28	11.1	M5x0.8	18	28	71.6	134
3/8" VFS male	N.C	7	Φ56.5	47.1	18.2	M5x0.8	27	38	123.2	105
1/2" VFS male	N.C	7	Φ56.5	47.1	18.2	M5x0.8	27	38	123.2	105
1/2" VFS female	N.C	7	Φ56.5	47.1	18.2	M5x0.8	27	38	123.2	105



pneumatic actuator, normally closed (HPC)

End Connections	Actuator	Orifice (mm)	Dimensions (mm)							
			A	B	C	D	E	F	L	H
1/4" VFS male	N.C	4.4	Φ55	28	11.1	M5x0.8	18	28	58.7	148.6
1/4" VFS female	N.C	4.4	Φ55	28	11.1	M5x0.8	18	28	71.6	148.6
3/8" VFS male	N.C	7	Φ55	47.1	18.2	M5x0.8	27	38	123.2	162
1/2" VFS male	N.C	7	Φ55	47.1	18.2	M5x0.8	27	38	123.2	162
1/2" VFS female	N.C	7	Φ55	47.1	18.2	M5x0.8	27	38	123.2	162

Ordering Information

VDV33UBS - M - A - MV4 - MV4 - PA - P

Materials

S: 316L

Actuator

M: manual actuator

PO: pneumatic actuator, normally opened *

PC: pneumatic actuator, normally closed

HPC: The multi-stage cylinder design ensures a more linear sealing process.

* Normally opened available with connection size 1/4"

Flow Circuit Diagram

For details, refer to the flow circuit diagram on page 67.

Process Specification

none: VS001B

P: VS001A

* For details, please refer to the appendix.

Valve Seat Option

None: PCTFE (standard)

VS: Vespel®

PA: PFA

End Connection

MV4: 1/4" VFS male

FV4: 1/4" VFS female

TW4: 1/4" tube weld

TW6: 3/8" tube weld

RMV8: 1/2" VFS Rotatable male

FV8: 1/2" VFS female

TW8: 1/2" tube weld

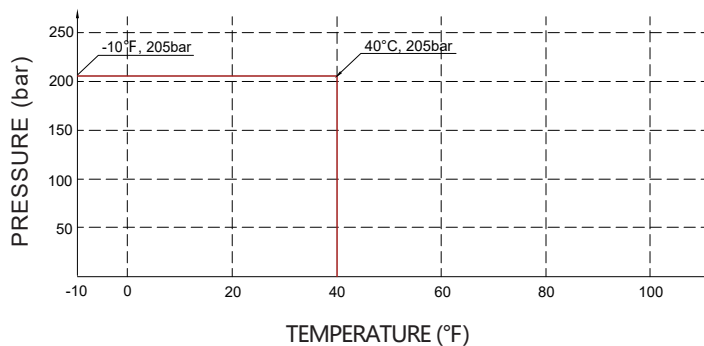
* Other connection standard, consult factory



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 and dead-space-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 / PFA is option

Temperature / Pressure Rating



1/4 Type



1/4 Type



1/2 Type



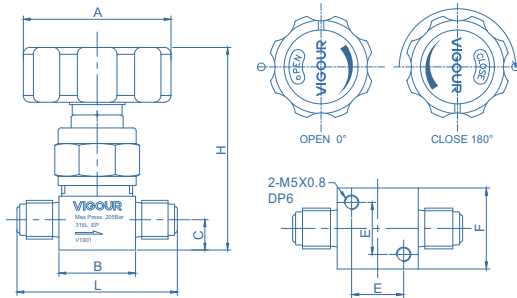
1/2 Type

Technical Data

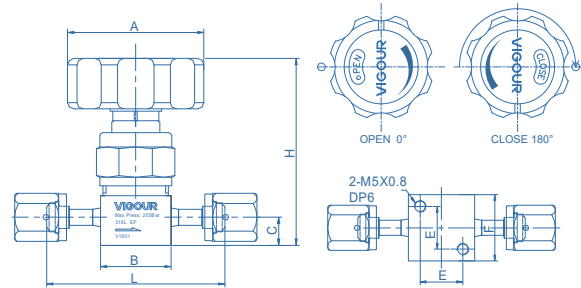
Max. Working Pressure:	3000 psig (200bar)
Actuation Pressure:	58~87psig (4~6bar)
Max. Working Temp.:	14°F ~ 104°F (-10°C ~ 40°C)
Surface finish:	7µin. Ra
Materials	
Body:	see ordering info
Diaphragm:	Elgiloy®
Seat packing:	PCTFE
Handle:	AL
Internal Leakage Allowance:	1x10 ⁻⁹ mbar·l/s He
External Leakage Allowance:	1x10 ⁻⁹ mbar·l/s He
Flow capacity:	1/4" Cv=0.27 3/8" 1/2" Cv=0.5
Weight:	approx. 0.27kg (depending on connections or options)



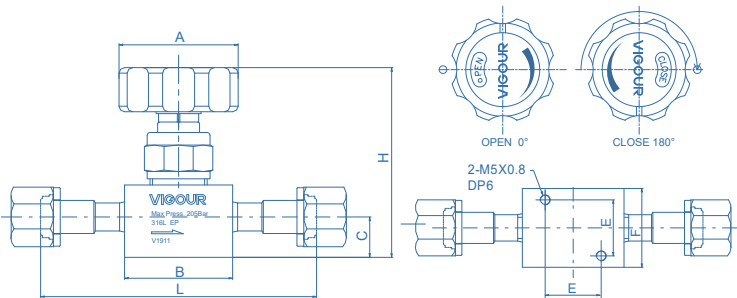
Dimensions (mm)



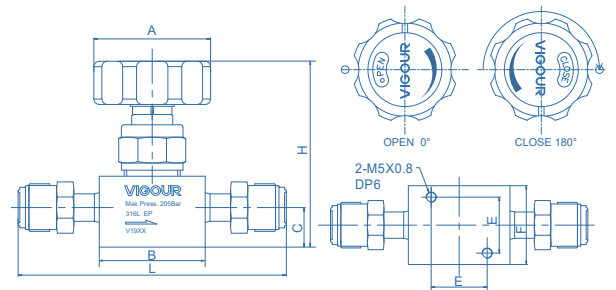
1/4 manual actuator (VFS male)



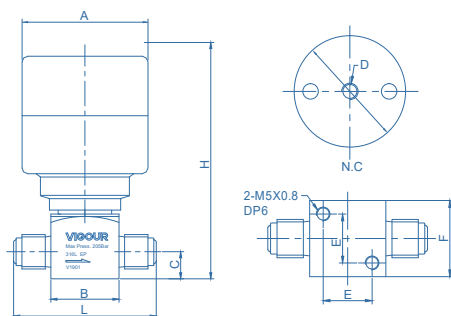
1/4 manual actuator (VFS female)



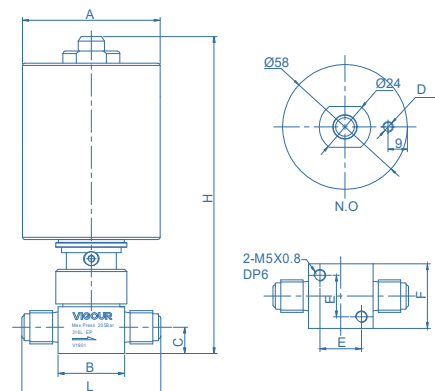
1/2 manual actuator (VFS female)



3/8, 1/2 manual actuator (VFS male)



1/4 pneumatic actuator N.C. (VFS male)

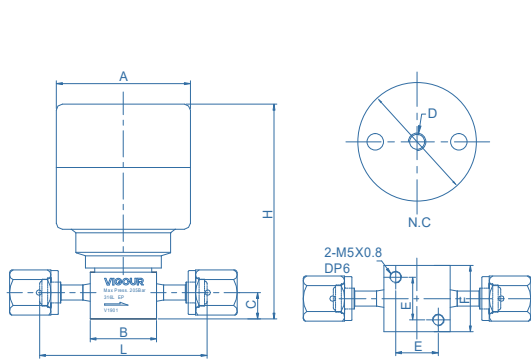


1/4 pneumatic actuator N.O. (VFS male)

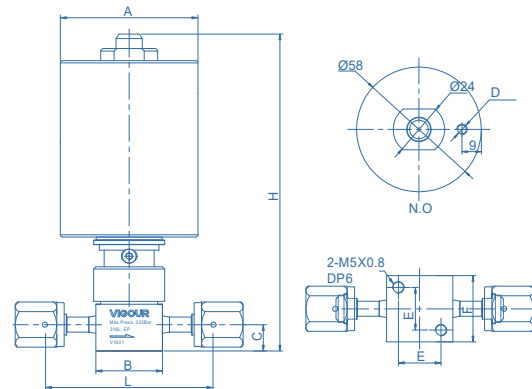


Diaphragm Valve VDV33UC Series

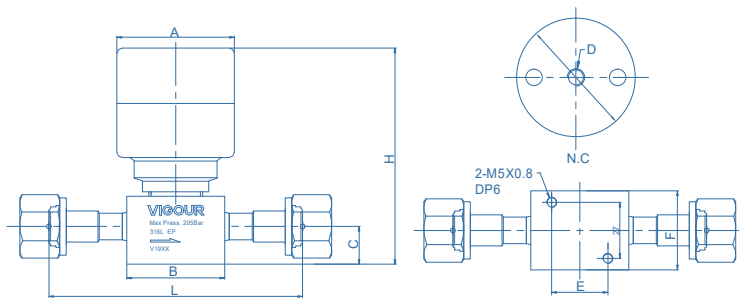
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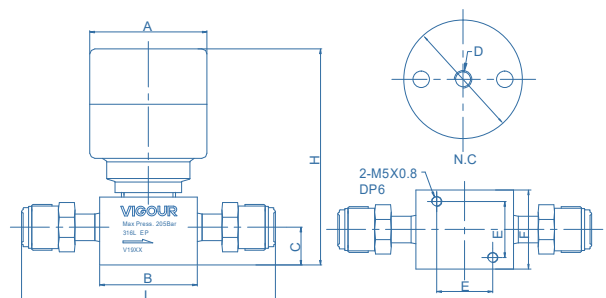
1/4 pneumatic actuator N.C. (VFS female)



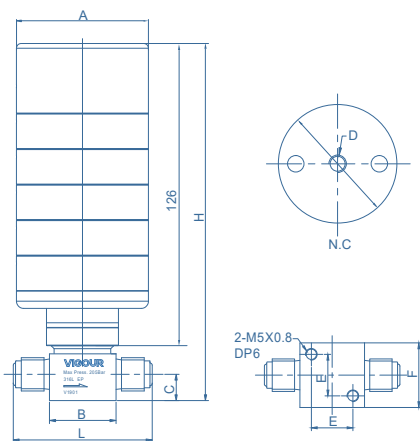
1/4 pneumatic actuator N.O. (VFS female)



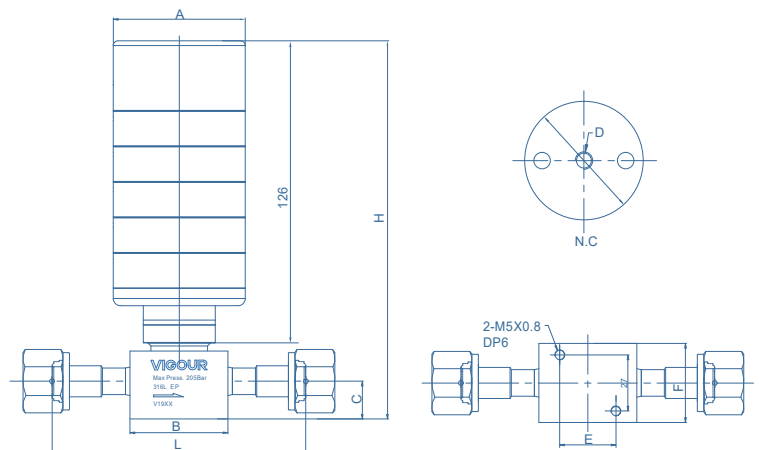
1/2 pneumatic actuator N.C. (VFS female)



3/8, 1/2 pneumatic actuator N.C. (VFS male)



1/4 pneumatic actuator N.C. (VFS female) HPC



3/8, 1/2 pneumatic actuator N.C. (VFS male) HPC



Dimensions (mm)

manual actuator

End Connections	Orifice (mm)	Dimensions (mm)						
		A	B	C	E	F	L	H
1/4" VFS male	4.4	Φ54	28	11.1	18	28	58.7	74
1/4" VFS female	4.4	Φ54	28	11.1	18	28	71.6	74
3/8" VFS male	7	Φ54	47.1	18.2	27	38	123.2	86
1/2" VFS male	7	Φ54	47.1	18.2	27	38	123.2	86
1/2" VFS female	7	Φ54	47.1	18.2	27	38	123.2	86

1/4", 3/8", 1/2" VFS fitting dimensions for reference, other connections please contact factory.

pneumatic actuator, normally opened / normally closed

End Connections	Actuator	Orifice (mm)	Dimensions (mm)							
			A	B	C	D	E	F	L	H
1/4" VFS male	N.C	4.4	Φ56.5	28	11.1	M5x0.8	18	28	58.7	90.5
1/4" VFS male	N.O	4.4	Φ58	28	11.1	M5x0.8	18	28	58.7	134
1/4" VFS female	N.C	4.4	Φ56.5	28	11.1	M5x0.8	18	28	71.6	90.5
1/4" VFS female	N.O	4.4	Φ58	28	11.1	M5x0.8	18	28	71.6	134
3/8" VFS male	N.C	7	Φ56.5	47.1	18.2	M5x0.8	27	38	123.2	105
1/2" VFS male	N.C	7	Φ56.5	47.1	18.2	M5x0.8	27	38	123.2	105
1/2" VFS female	N.C	7	Φ56.5	47.1	18.2	M5x0.8	27	38	123.2	105

pneumatic actuator, normally closed (HPC)



End Connections	Actuator	Orifice (mm)	Dimensions (mm)							
			A	B	C	D	E	F	L	H
1/4" VFS male	N.C	4.4	Φ55	28	11.1	M5x0.8	18	28	58.7	148.6
1/4" VFS female	N.C	4.4	Φ55	28	11.1	M5x0.8	18	28	71.6	148.6
3/8" VFS male	N.C	7	Φ55	47.1	18.2	M5x0.8	27	38	123.2	162
1/2" VFS male	N.C	7	Φ55	47.1	18.2	M5x0.8	27	38	123.2	162
1/2" VFS female	N.C	7	Φ55	47.1	18.2	M5x0.8	27	38	123.2	162

Ordering Information

VDV33UCSLV - M - A - MV4 - MV4 - PA - P

Materials

SLV: 316L secondary remelt

Actuator

M: manual actuator

PO: pneumatic actuator, normally opened *

PC: pneumatic actuator, normally closed

HPC: The multi-stage cylinder design ensures a more linear sealing process.

* Normally opened available with connection size 1/4"

Flow Circuit Diagram

For details, refer to the flow circuit diagram on page 67.

Process Specification

P: VS001A

* For details, please refer to the appendix.

Valve Seat Option

None: PCTFE(standard)

VS: Vespel®

PA: PFA

End Connection

MV4: 1/4" VFS male

FV4: 1/4" VFS female

TW4: 1/4" tube weld

TW6: 3/8" tube weld

RMV8: 1/2" VFS Rotatable male

FV8: 1/2" VFS female

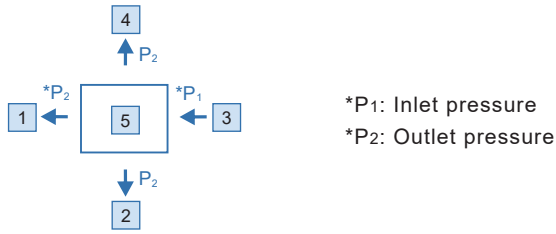
TW8: 1/2" tube weld

* Other connection standard, consult factory

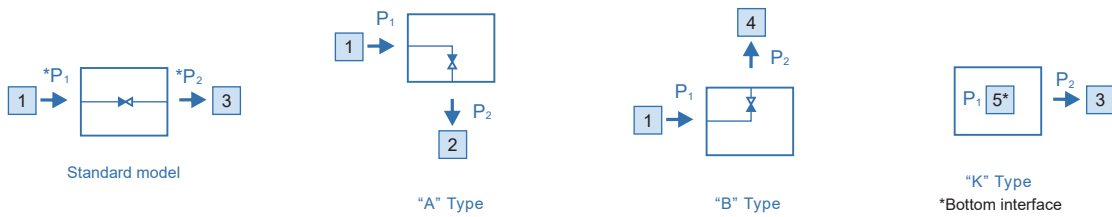


Diaphragm Valve Flow Circuit Diagram

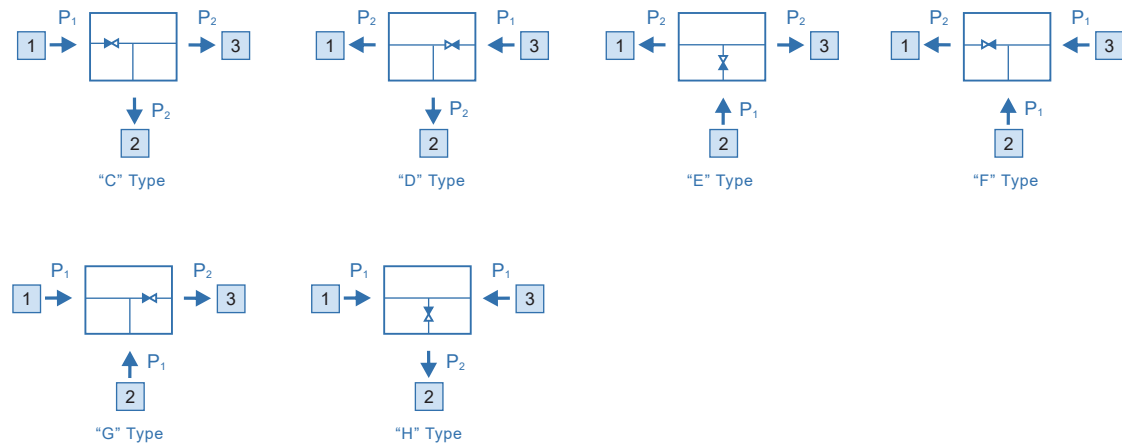
Ports Diagrammatic Drawing:



Two ports flow circuit diagram:



Three ports flow circuit diagram:



Four ports flow circuit diagram:

