

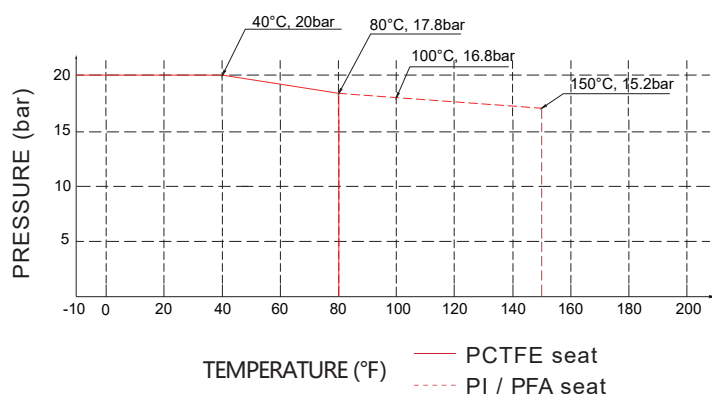
Diaphragm Valve VDV42UB Series

VIGOUR

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



Information on Repair Kit Ordering



Ordering Number	Seat material	Description	Explanation
DV42-WXB-316L-PCTFE	PCTFE	Including 1 pc of valve seat assembly and 2 pcs of diaphragms.	Suitable for replaceable seat diaphragm valves.
DV42-WXB-316L-Vespel	Vespel		
DV42-WXB-316L-PFA	PFA		

Technical Data

Max. Working Pressure:	300 psig (20bar)
Actuation Pressure:	58~87psig (4~6bar)
Max. Working Temp.:	14°F ~ 176°F (-10°C ~ 80°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:	Cv=0.3
Weight:	approx. 0.27kg (depending on connections or options)



1/4 Type



1/4 Type



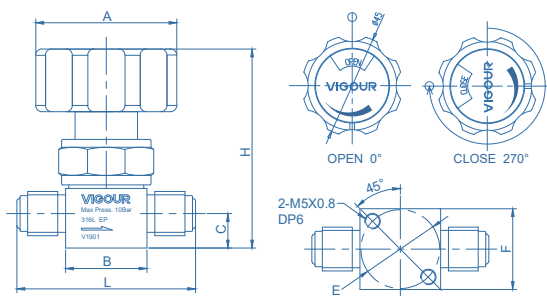
1/4 Type (Lock)



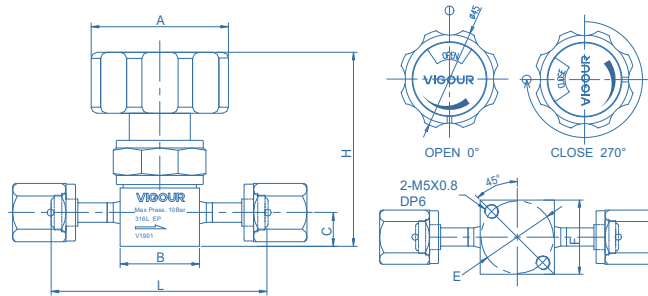
1/4 Type (IS option)



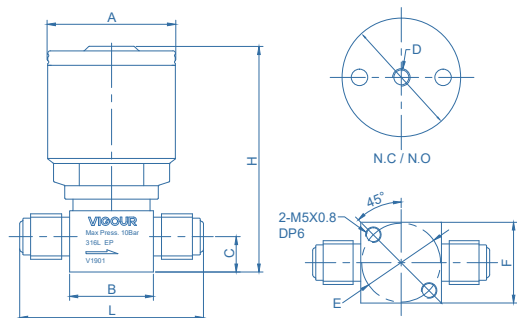
Dimensions (mm)



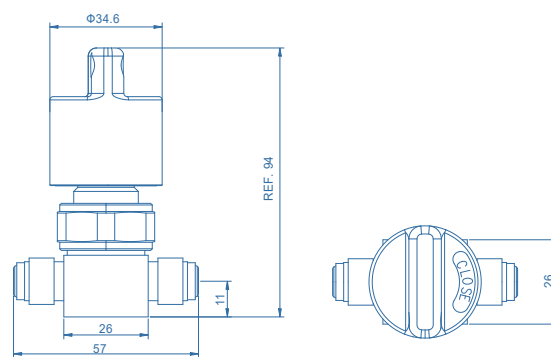
1/4, 3/8 manual actuator (VFS male)



1/4 manual actuator (VFS female)



1/4 pneumatic actuator (VFS male)



1/4 manual actuator (VFS female) Position Lock

manual actuator

End Connections	Orifice (mm)	Dimensions (mm)						
		A	B	C	E	F	L	H
1/4" VFS male	4.4	Φ45	26	11	Φ25.4	26	57	64
1/4" VFS female	4.4	Φ45	26	11	Φ25.4	26	71	64
3/8" VFS male	7	Φ45	36	18.2	Φ28	36	77	78

pneumatic actuator, normally opened / normally closed

End Connections	Actuator	Orifice (mm)	Dimensions (mm)						
			A	B	C	D	E	F	L
1/4" VFS male	N.C / N.O	4.4	Φ39.6	26	11	M5x0.8	Φ25.4	26	57
1/4" VFS female	N.C / N.O	4.4	Φ39.6	26	11	M5x0.8	Φ25.4	26	71
3/8" VFS male	N.C / N.O	7	Φ55	36	18.2	M5x0.8	Φ28	36	77

Ordering information

VDV42UBS - M - A - MV4 - MV4 - PA - LOTOC - IS - P

Materials

S: 316L

Actuator

M: manual actuator
PO: pneumatic actuator, normally opened
PC: pneumatic actuator, normally closed

Flow Circuit Diagram

For details, refer to the flow circuit diagram on page 69.

End Connection

MV4: 1/4" VFS male TW4: 1/4" tube weld
FV4: 1/4" VFS female TW6: 3/8" tube weld

Process Specification

none: VS001B
P: VS001A

* For details, please refer to the appendix.

Option

None: Standard
IS: Switch Position Indicator

Option

None: standard
LOTO: Closed Position Lock
LOTC: Open Position Lock
LOTOC: Open / Closed Position Lock

Valve Seat Option

None: PCTFE (standard)
VS: Vespel®
PA: PFA

* Other connection standard, consult factory



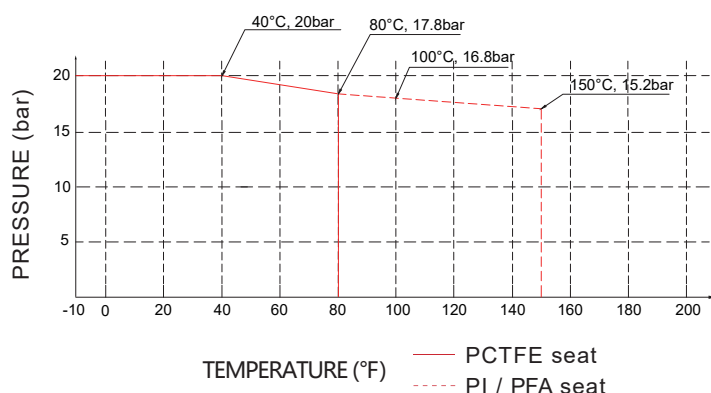
Diaphragm Valve VDV42UC Series

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- EP treatment is standard for all wetted surfaces
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Temperature / Pressure Rating



Information on Repair Kit Ordering



Ordering Number	Seat material	Description	Explanation
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DV42-WXB-316L S.R-Vespel	Vespel		
DV42-WXB-316L S.R-PFA	PFA		

Technical Data

Max. Working Pressure:	300 psig (20bar)
Actuation Pressure:	58~87psig (4~6bar)
Max. Working Temp.:	14°F ~ 176°F (-10°C ~ 80°C)
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Flow capacity:	Cv=0.3
Weight:	approx. 0.27kg (depending on connections or options)



1/4 Type



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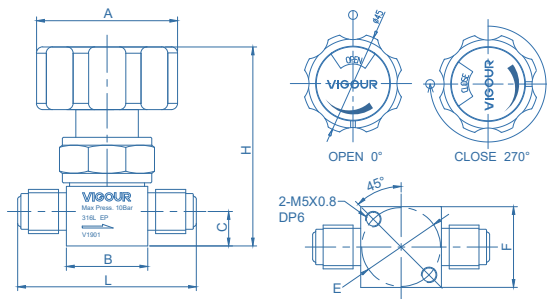
1/4 Type (Lock)



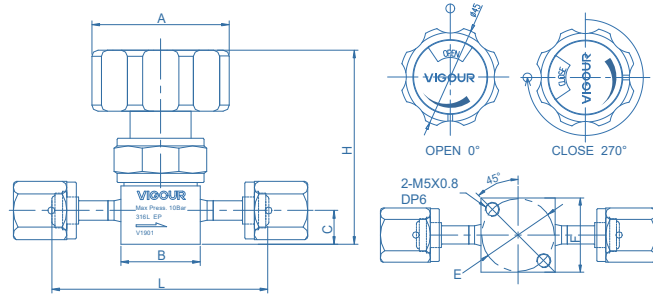
1/4 Type (IS option)



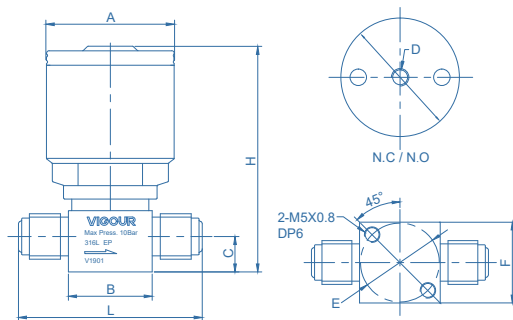
Dimensions (mm)



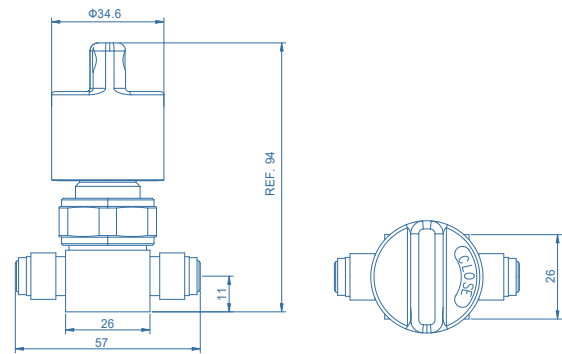
1/4, 3/8 manual actuator (VFS male)



1/4 manual actuator (VFS female)



1/4 pneumatic actuator (VFS male)



1/4 manual actuator (VFS female) Position Lock

manual actuator

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pneumatic actuator, normally opened / normally closed

End Connections	Actuator	Orifice (mm)	Dimensions (mm)						
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1/4" VFS male	N.C / N.O	4.4	Φ39.6	26	11	M5x0.8	Φ25.4	26	57
1/4" VFS female	N.C / N.O	4.4	Φ39.6	26	11	M5x0.8	Φ25.4	26	71
3/8" VFS male	N.C / N.O	7	Φ55	36	18.2	M5x0.8	Φ28	36	77

Ordering information

VDV42UCSLV - M - A - MV4 - MV4 - PA - LOTOC - IS - P

Materials

SLV: 316L secondary remelt

Actuator

M: manual actuator
PO: pneumatic actuator, normally opened
PC: pneumatic actuator, normally closed

Flow Circuit Diagram

For details, refer to the flow circuit diagram on page 69.

End Connection

MV4: 1/4" VFS male TW4: 1/4" tube weld
FV4: 1/4" VFS female TW6: 3/8" tube weld

Process Specification

P: VS001A

* For details, please refer to the appendix.

Option

None: Standard
IS: Switch Position Indicator

Option

None: standard
LOTO: Closed Position Lock
LOTC: Open Position Lock
LOTOC: Open / Closed Position Lock

* Manual only

* Other connection standard, consult factory

