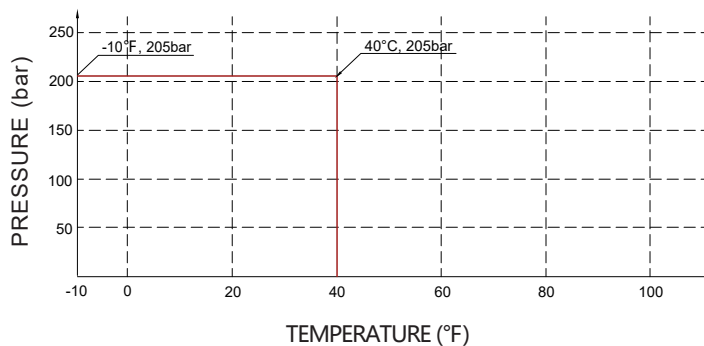


## Product Feature

- 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 <sup>-9</sup> mbar l/s He                       |
| External Leakage Allowance: | 1x10 <sup>-9</sup> 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



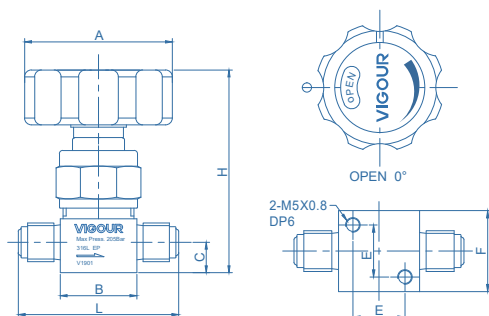
1/2 Type



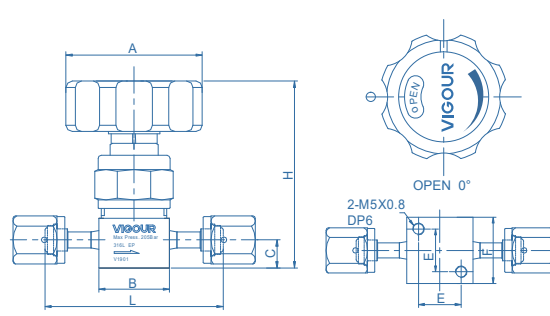
1/2 Type



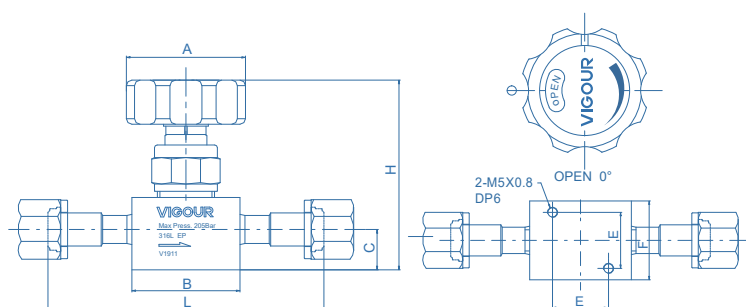
## Dimensions (mm)



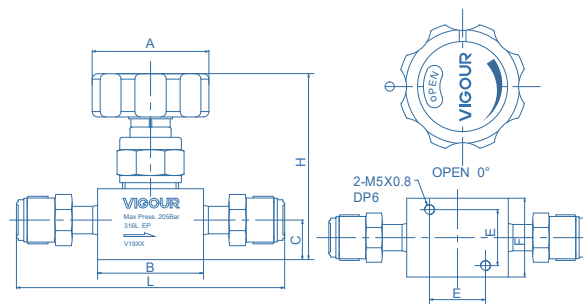
1/4 manual actuator (VFS male)



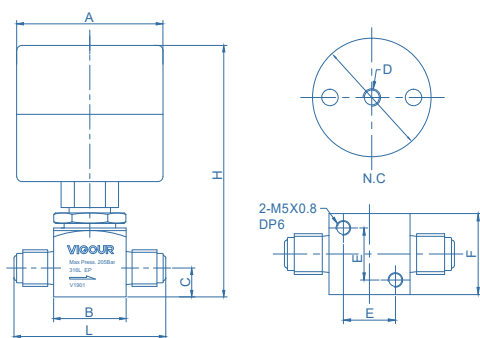
1/4 manual actuator (VFS female)



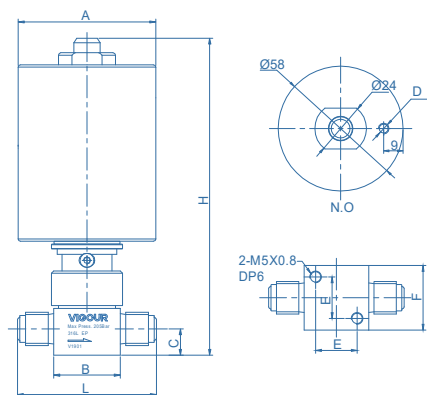
1/2 manual actuator (VFS female)



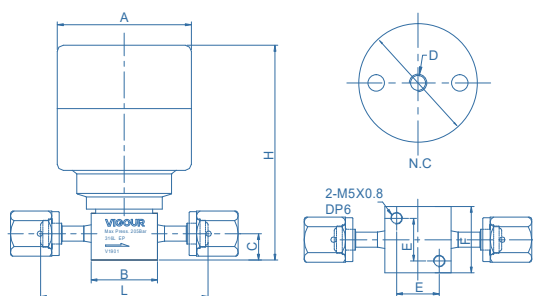
3/8, 1/2 manual actuator (VFS male)



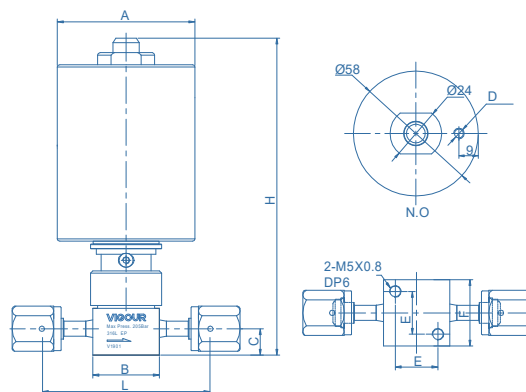
1/4 pneumatic actuator N.C (VFS male)



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



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

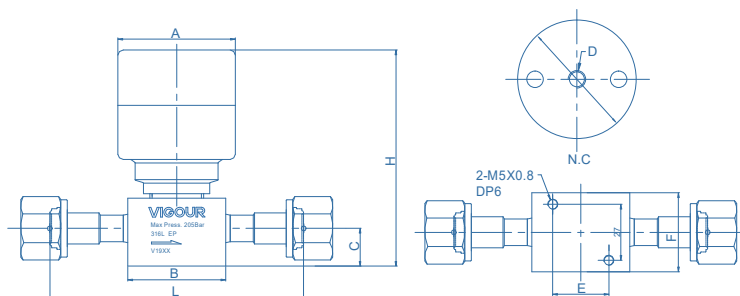


1/4 pneumatic actuator N.O (VFS female)

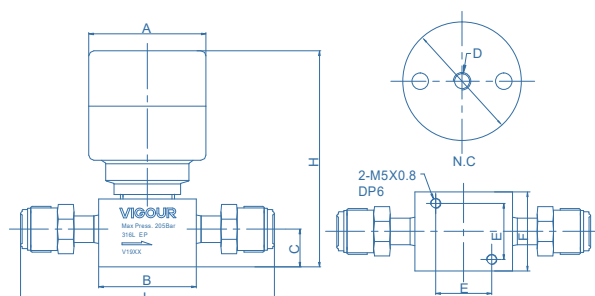


# Diaphragm Valve VDV33UB Series

**VIGOUR**



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



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

## 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 |  |

## 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  |

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

## 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

\* Normally opened available with connection size 1/4 thch.

### Flow Circuit Diagram

For details, refer to the flow circuit diagram on page 66.

### 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

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

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

TW6: 3/8" tube weld

MV8: 1/2" VFS male

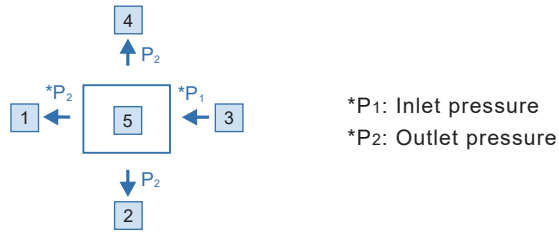
FV8: 1/2" VFS female

TW8: 1/2" tube weld

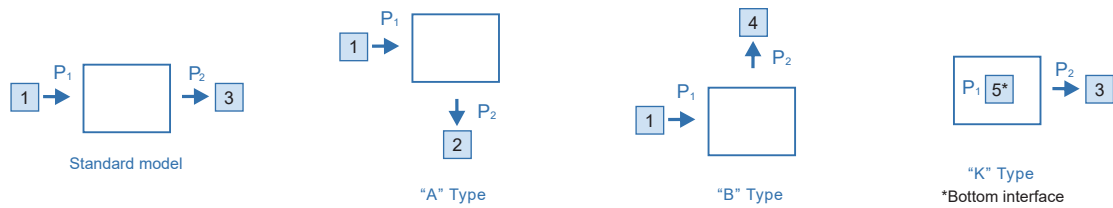
\* Other connection standard, consult factory



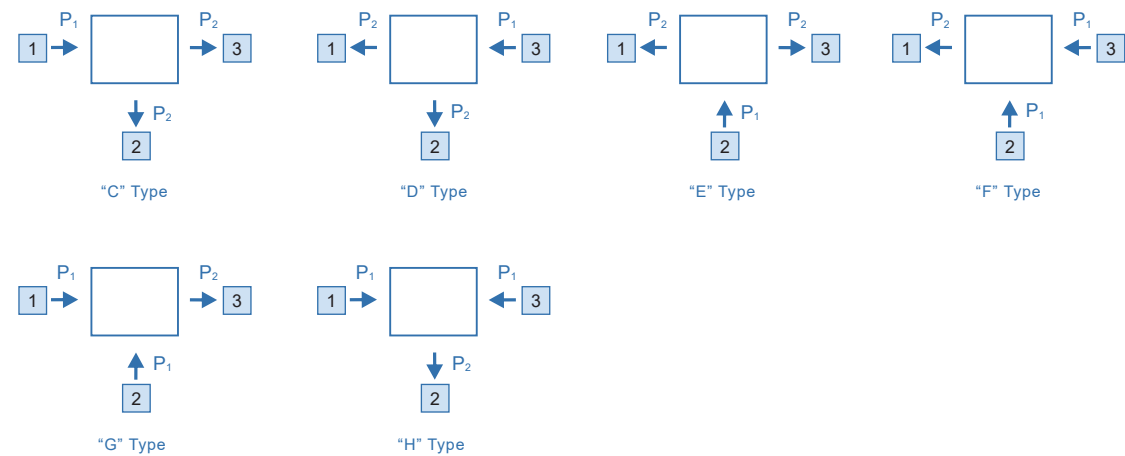
## Ports Diagrammatic Drawing:



## Two ports flow circuit diagram:



## Three ports flow circuit diagram:



## Four ports flow circuit diagram:

