



**Features**

- Maximum flow & Compact designed inner capacity.
- Minimal contributions of moisture, Oxygen and Hydrocarbon, Minimal particle generation.
- DK-Lok's own electropolished.
- D.I water cleaned, assembled, tested & packaged in a certified clean room.
- Elgiloy diaphragm material with strong durability as well as corrosion resistance for long cycle life.
- PCTFE seat material with remarkable chemical & thermal resistance.

**Specification**

|                                                                                                           |                               |            |
|-----------------------------------------------------------------------------------------------------------|-------------------------------|------------|
| Size                                                                                                      | 1/4"                          | 3/8", 1/2" |
| Cv Value                                                                                                  | 0.3                           | 0.7        |
| Orifice Size                                                                                              | 4.5                           | 7.0        |
| Max. Working Pressure                                                                                     | 10 bar (145 psig)             |            |
| Max. Working Temperature                                                                                  | -10 ~ 80°C (-23~176°F)        |            |
| Actuator Pressure Rating                                                                                  | 4~7 bar (58~101 psig)         |            |
| Internal Leakage Allowance - He Holding Time ≥ 30 sec                                                     | ≤ 1x10 <sup>-9</sup> atm.cc/s |            |
| External Leakage Allowance - He Holding Time ≥ 1 min                                                      | ≤ 1x10 <sup>-9</sup> atm.cc/s |            |
| Particle Inspection (EP Only)<br>Pressure : 60~80 psi N2 Gas<br>Sample Volume : 1CFM<br>0.1 μm and Larger | No count                      |            |

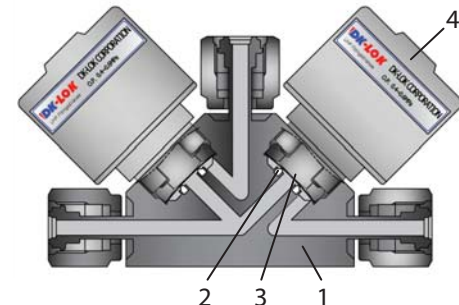
**Product Grade**

| Level                   | AP                        | BA                     | EP                        |
|-------------------------|---------------------------|------------------------|---------------------------|
| Inner Surface Roughness | Ry ≤ 25 μm                | Ry ≤ 3.0 μm / Ra 10 μm | Ry ≤ 0.7 μm / Ra 5 μm     |
|                         | Cut off Length : 2.5mm    | Cut off Length : 0.8mm | Cut off Length : 0.25mm   |
|                         | Measuring Length : 12.5mm | Measuring Length : 4mm | Measuring Length : 1.25mm |
| Polishing               | Machining Finish          | Machining Finish       | Electro Polishing Finish  |

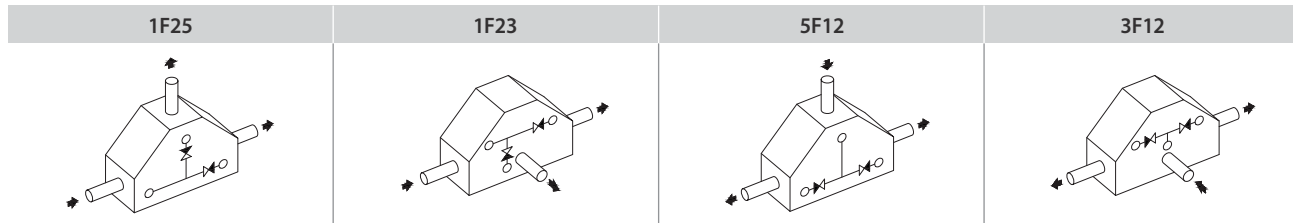
**Material of Construction**

| No. | Component | Materials                |
|-----|-----------|--------------------------|
| 1   | Body      | 316L Stainless Steel     |
|     |           | 316L Stainless Steel VAR |
| 2   | Seat      | PCTFE                    |
| 3   | Diaphragm | Ni-Co Alloy              |
| 4   | Actuator  | Aluminum                 |

\* Wetted Components are listed in blue.



Flow Path Patterns



Ordering Information and Dimensions

| Model | Basic Ordering Number | End Connections | Flow | Dimensions (mm) |      |      |      |       |      |      |      |
|-------|-----------------------|-----------------|------|-----------------|------|------|------|-------|------|------|------|
|       |                       |                 |      | ℓ               | h    | H    | A    | B     | L    | D    | C    |
|       | U-PVDB4-DF-           | 1/4" DCR Female | 1F25 | 21.8            | 11.0 | 73.1 | 53.8 | 123.4 | 64.0 | 15.0 | 40.0 |
|       | U-PVDB4-DF-           | 1/4" DCR Female | 1F23 | 21.8            | 11.0 | 73.1 | 34.8 | 123.4 | 64.0 | 15.0 | 40.0 |

How to Order

|                    |             |                    |                                       |                              |                                                            |                              |                     |
|--------------------|-------------|--------------------|---------------------------------------|------------------------------|------------------------------------------------------------|------------------------------|---------------------|
| <b>U</b>           | <b>PVDB</b> | <b>4</b>           | <b>DF</b>                             | <b>OP</b>                    | <b>1F25</b>                                                | <b>SL</b>                    | <b>B</b>            |
| DK-Lok UHP Product | Valve Type  | Size               | End Connector Type                    | Operation Type               | Flow Path Patterns                                         | Material                     | Inner Surface Level |
| Valve Type         | Size        | End Connector Type | Operation Type                        | Flow Path Patterns           | Material                                                   | Surface Level                |                     |
| PVDB               | 4 : 1/4"    | DF : DCR Female    | OP : Normal Open<br>CP : Normal Close | 1F25<br>1F23<br>5F12<br>3F12 | SL : 316L Stainless Steel<br>DL : 316L Stainless Steel VAR | B : BA Grade<br>P : EP Grade |                     |

Note) DCR : DK-Metal Face Seal

Safe Valve Selection

The selection of a valve for any application or system design must be considered to ensure safe performance. Valve function, valve rating, material compatibility, proper installation, operation and maintenance remain the sole responsibility of the system designer and the user. DK-Lok accepts no liability for any improper selection, installation, operation or maintenance.

© Copyright. All Rights Reserved.