



## High Flow Manual Diaphragm Valves

### Standard Type



#### Features

- Maximum flow & Compact designed inner capacity.
- Minimal contributions of moisture, Oxygen and Hydrocarbon, Minimal particle generation.
- DK-LOK's own electropolished.
- DI water cleaned, assembled, tested & packaged in the certified clean room.
- PCTFE seat material with remarkable chemical & thermal resistance.

#### Specification

| Size   | 1/2"                          | 3/4" | 1"  |
|--|-------------------------------|------|-----|
| Cv Value   | 2.8                           | 3.5  | 3.5 |
| Max. Working Pressure  | 18.6 bar (270 psig)           |      |     |
| Max. Working Temperature   | -10° ~ 80°C (-23~176°F)       |      |     |
| Internal Leakage Allowance – He<br>Holding Time ≥ 15 sec   | ≤ 1x10 <sup>-9</sup> atm.cc/s |      |     |
| External Leakage Allowance – He<br>Holding Time ≥ 1 min  | ≤ 1x10 <sup>-9</sup> atm.cc/s |      |     |
| Particle Inspection (EP Only)<br>Pressure : 60~80psi N2 Gas<br>Sample Volume : 1CFM<br>0.1 μm and Larger | No count                      |      |     |

#### Product Grade

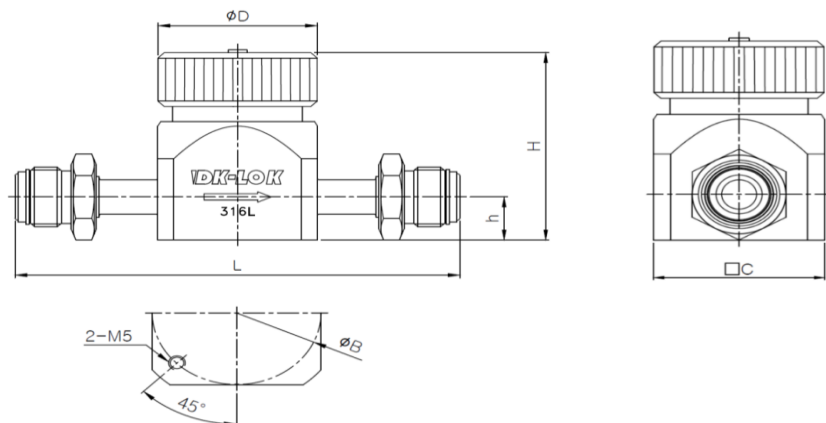
| Level                   | AP                        | BA                     | EP                        |
|-------------------------|---------------------------|------------------------|---------------------------|
| Inner Surface Roughness | Ry ≤ 25 μm                | Ry ≤ 3.0 μm / Ra 10μin | Ry ≤ 0.7 μm / Ra 5μin     |
|                         | 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

| Description | Materials                |
|-------------|--------------------------|
| Body        | 316L Stainless Steel     |
|             | 316L Stainless Steel VAR |
| Seat        | PCTFE                    |
| Diaphragm   | 316L Stainless Steel     |
| Handle      | Aluminum                 |

- Wetted Components are listed in [blue](#)

## Ordering Information and Dimensions



| Basic Ordering Number | Size | End Connections | Dimensions (mm) |      |      |    |    |    |
|-----------------------|------|-----------------|-----------------|------|------|----|----|----|
|                       |      |                 | L               | h    | H    | B  | C  | D  |
| U-HFVDC8-DM-          | 1/2" | DCR Male        | 138.7           | 16   | 69.5 | 50 | 50 | 50 |
| U-HFVDC12-DM-         | 3/4" |                 | 157             | 17.5 | 74   | 50 | 50 | 50 |
| U-HFVDC16-DM-         | 1"   |                 | 166             | 17.5 | 74   | 50 | 50 | 50 |
| U-HFVDC8-DF-          | 1/2" | DCR Female      | 138.7           | 16   | 69.5 | 50 | 50 | 50 |
| U-HFVDC12-DF-         | 3/4" |                 | 157             | 17.5 | 74   | 50 | 50 | 50 |
| U-HFVDC16-DF-         | 1"   |                 | 166             | 17.5 | 74   | 50 | 50 | 50 |
| U-HFVDC8-TW-          | 1/2" | Tube Butt Weld  | 150             | 16   | 69.5 | 50 | 50 | 50 |
| U-HFVDC12-TW-         | 3/4" |                 | 150             | 17.5 | 74   | 50 | 50 | 50 |
| U-HFVDC16-TW-         | 1"   |                 | 150             | 17.5 | 74   | 50 | 50 | 50 |

## How to order

|                    |   |              |  |          |   |                    |   |                   |   |           |  |                     |   |             |
|--------------------|---|--------------|--|----------|---|--------------------|---|-------------------|---|-----------|--|---------------------|---|-------------|
| <b>U</b>           | - | <b>HFVDC</b> |  | <b>8</b> | - | <b>DM</b>          | - | <b>P0</b>         | - | <b>SL</b> |  | <b>B</b>            | - | <b>X</b>    |
| DK-Lok UHP Product |   | Valve Type   |  | Size     |   | End Connector Type |   | Purge Port Option |   | Material  |  | Inner Surface Level |   | User Option |

| Valve Type | Size             | End Connector Type         | Purge Port Option                             | Material                             | Surface Level       | User Option                  |
|------------|------------------|----------------------------|---|--------------------------------------|---------------------|------------------------------|
| HFVDC      | <b>8</b> : 1/2"  | <b>DM</b> : DCR Male       | <b>Blank</b> : No Purge Port                  | <b>SL</b> : 316L Stainless Steel     | <b>B</b> : BA Grade | <b>Blank</b> : Standard      |
|            | <b>12</b> : 3/4" | <b>DF</b> : DCR Female     | <b>P0</b> : Inlet Purge Port 1/4" DCR Male    | <b>DL</b> : 316L Stainless Steel VAR | <b>P</b> : EP Grade | <b>X</b> : Customization No. |
|            | <b>16</b> : 1"   | <b>TW</b> : Tube Butt Weld | <b>P1</b> : Inlet Purge Port 1/4" DCR Female  |                                      |                     |                              |
|            |                  |                            | <b>P2</b> : Outlet Purge Port 1/4" DCR Male   |                                      |                     |                              |
|            |                  |                            | <b>P3</b> : Outlet Purge Port 1/4" DCR Female |                                      |                     |                              |
|            |                  |                            | <b>P4</b> : In/Out Purge Port 1/4" DCR Male   |                                      |                     |                              |
|            |                  |                            | <b>P5</b> : In/Out Purge Port 1/4" DCR Female |                                      |                     |                              |

**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.

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