



High Pressure Manual Diaphragm Valves Standard Type



Features

- Maximum Pressure & 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.
- 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" | 1/2" |
| Cv Value | 0.1 | 0.25 |
| Max. Working Pressure | 206 bar (3,000 psig) | |
| Max. Working Temperature | PCTFE : -10° ~ 80°C / PFA,PI : -10° ~ 150°C | |
| Internal Leakage Allowance – He Holding Time ≥ 15 sec | ≤ 1x10 ⁻⁹ atm.cc/s | |
| External Leakage Allowance – He Holding Time ≥ 1 min | ≤ 1x10 ⁻⁹ atm.cc/s | |
| Particle Inspection (EP Only) Pressure : 60~80psi N2 Gas Sample Volume : 1CFM 0.1 μm and Larger | No count | |

Product Grade

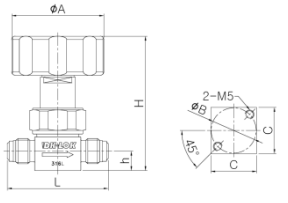
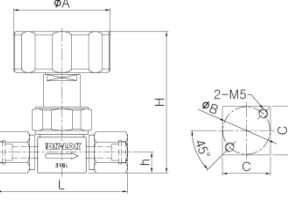
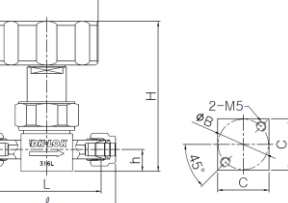
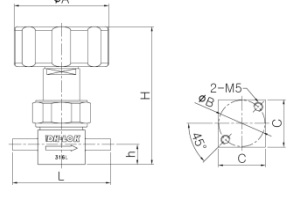
| Level | AP | BA | EP |
|-------------------------|---------------------------|------------------------|---------------------------|
| Inner Surface Roughness | Ry ≤ 25 μm | Ry ≤ 3.0 μm / Ra 10μin | Ry ≤ 0.7 μm / Ra 5μin |
| | Cut off Length : 2.5mm | Cut off Length : 0.8mm | Cut off Length : 0.25mm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

Material of Construction

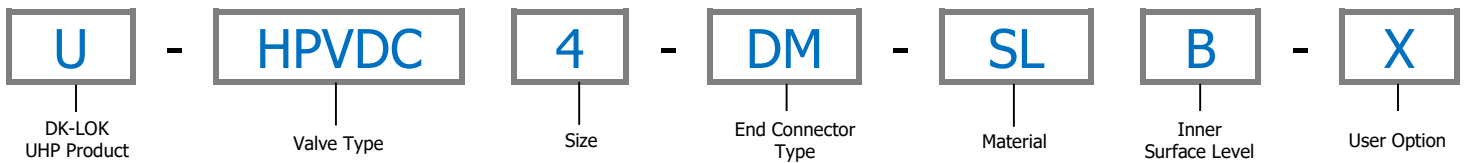
| Description | Materials |
|-------------|--------------------------|
| Body | 316L Stainless Steel |
| | 316L Stainless Steel VAR |
| Seat | PCTFE, PFA, PI |
| Diaphragm | Ni-Co Alloy |
| Handle | Aluminum |

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

Ordering Information and Dimensions

| Model | Basic Ordering Number | End Connections | Dimensions (mm) | | | | | | |
|--|-----------------------|---------------------|-----------------|----|-------|----|------|----|------|
| | | | L | h | H | A | B | C | ℓ |
|  | U-HPVDC4-DM- | 1/4" DCR Male | 57 | 11 | 75 | 52 | 25.4 | 26 | - |
| | U-HPVDC8-DM- | 1/2" DCR Male | 76.2 | 16 | 102.5 | 52 | 28 | 37 | - |
|  | U-HPVDC4-DF- | 1/4" DCR Female | 70.6 | 11 | 75 | 52 | 25.4 | 26 | - |
| | U-HPVDC8-DF- | 1/2" DCR Female | 83 | 16 | 102.5 | 52 | 28 | 37 | - |
|  | U-HPVDC4-DK- | 1/4" DK-LOK | 55 | 11 | 75 | 52 | 25.4 | 26 | 69.5 |
| | U-HPVDC6-DK- | 3/8" DK-LOK | 68 | 16 | 102.5 | 52 | 28 | 37 | 28.5 |
| | U-HPVDC8-DK- | 1/2" DK-LOK | 70 | 16 | 102.5 | 52 | 28 | 37 | 91 |
|  | U-HPVDC4-TW- | 1/4" Tube Butt Weld | 54 | 11 | 75 | 52 | 25.4 | 26 | - |
| | U-HPVDC6-TW- | 3/8" Tube Butt Weld | 69 | 16 | 102.5 | 52 | 28 | 37 | - |
| | U-HPVDC8-TW- | 1/2" Tube Butt Weld | 69 | 16 | 102.5 | 52 | 28 | 37 | - |

How to order



| Valve Type | Size | End Connector Type | Material | Surface Level | User Option |
|------------|-----------------|--|--------------------------------------|---------------------|--|
| HPVDC | 4 : 1/4" | DM : DCR Male | SL : 316L Stainless Steel | B : BA Grade | Blank : Standard X : Customization No |
| | 6 : 3/8" | DF : DCR Female | DL : 316L Stainless Steel VAR | P : EP Grade | |
| | 8 : 1/2" | DK : DK-LOK TW : Tube Butt Weld | | | |

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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