



## Low Pressure Manual Diaphragm Valves

### Weld Tee & Valve 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.
- 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"	3/4"
Cv Value	0.3	0.7	0.7
Max. Working Pressure	10 bar (145 psig)		
Max. Working Temperature	PCTFE : -10° ~ 80°C / PFA, PI : -10° ~ 150°C		
Internal Leakage Allowance – He Holding Time ≥ 15 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) 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, Ni Alloy C22
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-TVDC4-DM-	1/4" DCR Male	98.5	11	63.7	40	25.4	26	115.5
	U-TVDC8(6)-DM-	1/2" DCR Male	122.6	16	76.8	40	28	37	125.1
	U-TVDC12-DM-	3/4" DCR Male	158.9	22	82.8	40	28	37	172.5
	U-TVDC4-DF-	1/4" DCR Female	105.9	11	63.7	40	25.4	26	122.9
	U-TVDC8(6)-DF-	1/2" DCR Female	114.5	16	76.8	40	28	37	131.5
	U-TVDC12-DF-	3/4" DCR Female	141.8	22	82.8	40	28	37	155.4
	U-TVDC4-DK-	1/4" DK-LOK	105	11	63.7	40	25.4	26	114.7
	U-TVDC6-DK-	3/8" DK-LOK	118.5	16	76.8	40	28	37	135.5
	U-TVDC8-DK-	1/2" DK-LOK	118.5	16	76.8	40	28	37	135.5
	U-TVDC12-DK-	3/4" DK-LOK	115	22	82.8	40	28	37	168.6
	U-TVDC4-TW-	1/4" Tube Butt Weld	97.2	11	63.7	40	25.4	26	114.2
	U-TVDC6-TW-	3/8" Tube Butt Weld	126	16	76.8	40	28	37	143
	U-TVDC8-TW-	1/2" Tube Butt Weld	126	16	76.8	40	28	37	143
	U-TVDC12-TW-	3/4" Tube Butt Weld	155	22	82.8	40	28	37	168.6

## How to order

<b>U</b>	-	<b>TVDC</b>		<b>4</b>	-	<b>DM</b>	-	<b>SL</b>		<b>B</b>	-	<b>X</b>
DK-LOK UHP Product		Valve Type		Size		End Connector Type		Material		Inner Surface Level		User Option

1	Size	End Connector Type	Material	Surface Level	User Option
TVDC	<b>4</b> : 20A.Sch.5 x 1/4"	<b>DM</b> : DCR Male	<b>SL</b> : 316L Stainless Steel	<b>B</b> : BA Grade	<b>Blank</b> : Standard
	<b>6</b> : 20A.Sch.5 x 3/8"	<b>DF</b> : DCR Female	<b>DL</b> : 316L Stainless Steel VAR	<b>P</b> : EP Grade	<b>X</b> : Customization No.
	<b>8</b> : 20A.SCH.5 x 1/2"	<b>DK</b> : DK-LOK			
	<b>12</b> : 20A. Sch.5 x 3/4"	<b>TW</b> : 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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