



Low Pressure Manual Diaphragm Valves Standard Type

No. VDC-2
FEB.2025



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 ⁻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

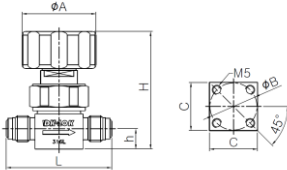
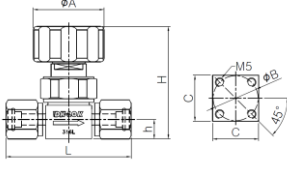
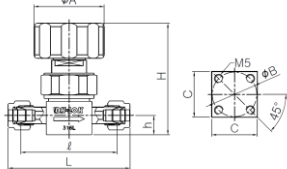
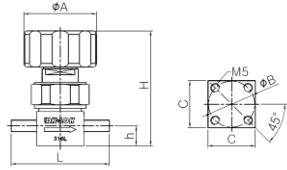
Level	AP	BA	EP
Inner Surface Roughness	Ry ≤ 25 μm	Ry ≤ 3.0 μm / Ra 10μin	Ry ≤ 0.7 μm / Ra 5μin
	Cut off Length : 2.5mm	Cut off Length : 0.8mm	Cut off Length : 0.25mm
	Measuring Length : 12.5mm	Measuring Length : 4mm	Measuring Length : 1.25mm
Polishing	Machining Finish	Machining Finish	Electro Polishing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

Material of Construction

Description	Materials
Body	316L Stainless Steel
	316L Stainless Steel VAR, Hastelloy
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-VDC4-DM-	1/4" DCR Male	57	11	63.7	40	25.4	26	-
	U-VDC8(6)-DM-	1/2" DCR Male	76.2	16	76.8	40	28	37	-
	U-VDC12-DM-	3/4" DCR Male	122	22	82.8	40	28	37	-
	U-VDC4-DF-	1/4" DCR Female	70.6	11	63.7	40	25.4	26	-
	U-VDC8(6)-DF-	1/2" DCR Female	83	16	76.8	40	28	37	-
	U-VDC12-DF-	3/4" DCR Female	122	22	82.8	40	28	37	-
	U-VDC4-DK-	1/4" DK-LOK	69.5	11	63.7	40	25.4	26	55
	U-VDC6-DK-	3/8" DK-LOK	82.5	16	76.8	40	28	37	68
	U-VDC8-DK-	1/2" DK-LOK	91	16	76.8	40	28	37	70
	U-VDC12-DK-	3/4" DK-LOK	106	22	82.8	40	28	37	84
	U-VDC4-TW-	1/4" Tube Butt Weld	54	11	63.7	40	25.4	26	-
	U-VDC6-TW-	3/8" Tube Butt Weld	69	16	76.8	40	28	37	-
	U-VDC8-TW-	1/2" Tube Butt Weld	69	16	76.8	40	28	37	-
	U-VDC12-TW-	3/4" Tube Butt Weld	150	22	82.8	40	28	37	-

How to order

U	-	VDC	-	4	-	DM	-	SL	-	B	-	X
DK-LOK UHP Product		Valve Type		Size		End Connector Type		Material		Inner Surface Level		User Option

Valve Type	Size	End Connector Type	Material	Surface Level	User Option
VDC	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			
	12 : 3/4"	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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Low Pressure Manual Diaphragm Valves

Forged Body 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 ⁻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

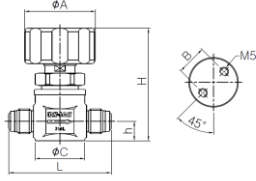
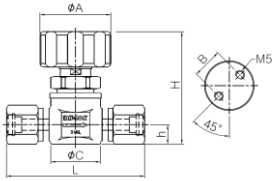
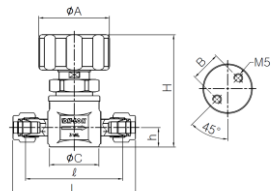
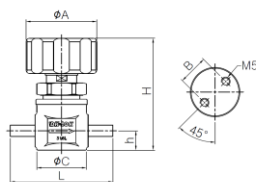
Level	AP	BA	EP
Inner Surface Roughness	Ry ≤ 25 μm	Ry ≤ 3.0 μm / Ra 10μin	Ry ≤ 0.7 μm / Ra 5μin
	Cut off Length : 2.5mm	Cut off Length : 0.8mm	Cut off Length : 0.25mm
	Measuring Length : 12.5mm	Measuring Length : 4mm	Measuring Length : 1.25mm
Polishing	Machining Finish	Machining Finish	Electro Polishing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

Material of Construction

Description	Materials
Body	316L Stainless Steel
	316L Stainless Steel VAR
Seat	PCTFE, PFA, PI
Diaphragm	Ni-Co Alloy, 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-VDF4-DM-	1/4" DCR Male	58	11	64	40	17	28	-
	U-VDF8(6)-DM-	1/2" DCR Male	76	16	77.3	40	28	38	-
	U-VDF12-DM-	3/4" DCR Male	122	22	83.3	40	28	38	-
	U-VDF4-DF-	1/4" DCR Female	78	11	64	40	17	28	-
	U-VDF8(6)-DF-	1/2" DCR Female	104.6	16	77.3	40	28	38	-
	U-VDF12-DF	3/4" DCR Female	122	22	83.3	40	28	38	-
	U-VDF4-DK-	1/4" DK-LOK	69.5	11	64	40	17	28	55
	U-VDF6-DK-	3/8" DK-LOK	82.5	16	77.3	40	28	38	68
	U-VDF8-DK-	1/2" DK-LOK	91	16	77.3	40	28	38	70
	U-VDF12-DK	3/4" DK-LOK	106	22	83.3	40	28	38	84
	U-VDF4-TW-	1/4" Tube Butt Weld	135	11	64	40	17	28	-
	U-VDF6-TW-	3/8" Tube Butt Weld	147	16	77.3	40	28	38	-
	U-VDF8-TW-	1/2" Tube Butt Weld	147	16	77.3	40	28	38	-
	U-VDF12-TW-	3/4" Tube Butt Weld	150	22	83.3	40	28	38	-

How to order

U	-	VDF		4	-	DM	-	SL		B	-	X
DK-LOK UHP Product		Valve Type		Size		End Connector Type		Material		Inner Surface Level		User Option

Valve Type	Size	End Connector Type	Material	Surface Level	User Option
VDF	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			
	12 : 3/4"	TW : Tube Butt Weld			

Note) DCR : DK-Metal Face Seal

Safe Valve Selection

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Low Pressure Pneumatic 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.
- 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		
Actuator Pressure Ration	4 ~ 6 bar (58 ~ 87 psig)		
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

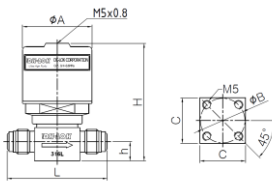
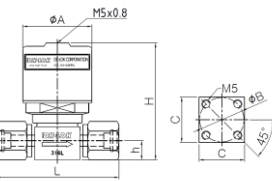
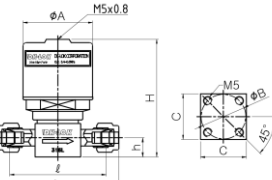
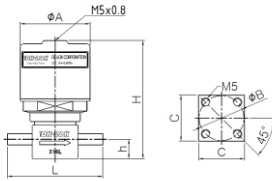
Level	AP	BA	EP
Inner Surface Roughness	Ry ≤ 25 μm	Ry ≤ 3.0 μm / Ra 10μin	Ry ≤ 0.7 μm / Ra 5μin
	Cut off Length : 2.5mm	Cut off Length : 0.8mm	Cut off Length : 0.25mm
	Measuring Length : 12.5mm	Measuring Length : 4mm	Measuring Length : 1.25mm
Polishing	Machining Finish	Machining Finish	Electro Polishing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

Material of Construction

Description	Materials
Body	316L Stainless Steel
	316L Stainless Steel VAR, Hastelloy
Seat	PCTFE, PFA, PI
Diaphragm	Ni-Co Alloy, Ni Alloy C22
Actuator	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-PVDC4-DM-	1/4" DCR Male	57	11	67	40	25.4	26	-
	U-PVDC8(6)-DM-	1/2" DCR Male	76.2	16	83.8	55	28	37	-
	U-PVDC12-DM-	3/4" DCR Male	122	22	89.8	55	28	37	-
	U-PVDC4-DF-	1/4" DCR Female	70.6	11	67	40	25.4	26	-
	U-PVDC8(6)-DF-	1/2" DCR Female	83	16	83.8	55	28	37	-
	U-PVDC12-DF-	3/4" DCR Female	122	22	89.8	55	28	37	-
	U-PVDC4-DK-	1/4" DK-LOK	69.5	11	67	40	25.4	26	55
	U-PVDC6-DK-	3/8" DK-LOK	82.5	16	83.8	55	28	37	68
	U-PVDC8-DK-	1/2" DK-LOK	91	16	83.8	55	28	37	70
	U-PVDC12-DK-	3/4" DK-LOK	106	22	89.8	55	28	37	84
	U-PVDC4-TW-	1/4" Tube Butt Weld	54	11	67	40	25.4	26	-
	U-PVDC6-TW-	3/8" Tube Butt Weld	69	16	83.8	55	28	37	-
	U-PVDC8-TW-	1/2" Tube Butt Weld	69	16	83.8	55	28	37	-
	U-PVDC12-TW-	3/4" Tube Butt Weld	150	22	89.8	55	28	37	-

How to order

U	-	PVDC	-	4	-	DM	-	CP	-	SL	-	B	-	X
DK-LOK UHP Product		Valve Type		Size		End Connector Type		Operation Type		Material		Inner Surface Level		User Option

Valve Type	Size	End Connector Type	Operation Type	Material	Surface Level	User Option
PVDC	4 : 1/4"	DM : DCR Male	CP : Normal Close	SL : 316L Stainless Steel	B : BA Grade	Blank : Standard X : Customization No.
	6 : 3/8"	DF : DCR Female	OP : Normal Open	DL : 316L Stainless Steel VAR	P : EP Grade	
	8 : 1/2"	DK : DK-LOK				
	12 : 3/4"	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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No. VDB-1
DEC.2021

Low Pressure Manual Block 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.
- 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"
Cv Value	0.3
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 ⁻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, Hastelloy
Seat	PCTFE, PFA, PI
Diaphragm	Ni-Co Alloy
Handle	Aluminum

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

Flow Path Patterns

1F25	1F23	5F12	3F12

Ordering Information and Dimensions

Model	Basic Ordering Number	End	Flow	Dimensions (mm)							
				ℓ	h	H	A	B	L	D	C
	U-VDB4-DF-	1/4" DCR Female	1F25	21.8	11	70	53.8	117.6	64	15	40
	U-VDB4-DF-	1/4" DCR Female	1F23	21.8	11	70	34.8	117.6	64	15	40

How to order

U

DK-LOK
UHP Product

-

VDB

Valve Type

-

4

Size

-

DF

End Connector
Type

-

1F25

Flow Path
patterns

-

SL

Material

-

B

Inner
Surface Level

-

X

User Option

Valve Type	Size	End Connector Type	Flow Path Patterns	Material	Surface Level	User Option
VDB	4 : 1/4"	DF : DCR Female	1F25	SL : 316L Stainless Steel	B : BA Grade	Blank : Standard
			1F23	DL : 316L Stainless Steel VAR	P : EP Grade	X : Customization No.
			5F12			
			3F12			

Note) DCR : DK-Metal Face Seal

Safe Valve Selection

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Low Pressure Pneumatic Block 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.
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- PCTFE seat material with remarkable chemical & thermal resistance.

Specification

Size	1/4"
Cv Value	0.3
Max. Working Pressure	10 bar (145 psig)
Max. Working Temperature	PCTFE : -10° ~ 80°C / PFA, PI : -10° ~ 150°C
Actuator Pressure Ration	4 ~ 6 bar (58 ~ 87 psig)
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, Hastelloy
Seat	PCTFE, PFA, PI
Diaphragm	Ni-Co Alloy, Ni Alloy C22
Actuator	Aluminum

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

Flow Path Patterns

1F25	1F23	5F12	3F12

Ordering Information and Dimensions

Model	Basic Ordering Number	End	Flow	Dimensions (mm)							
				ℓ	h	H	A	B	L	D	C
	U-PVDB4-DF-	1/4" DCR Female	1F25	21.8	11	73.1	53.8	123.4	64	15	40
	U-PVDB4-DF-	1/4" DCR Female	1F23	21.8	11	73.1	34.8	123.4	64	15	40

How to order

U DK-LOK UHP Product	-	PVDB Valve Type		4 Size	-	DF End Connector Type	-	CP Operation Type	-	1F25 Flow Path patterns	-	SL Material		B Inner Surface Level	-	X User Option
Valve Type	Size	End Connector Type	Operation Type	Flow Path Patterns	Material		Surface Level	User Option								
PVDB	4 : 1/4"	DF:DCR Female	CP: Normal Close	1F25	SL : 316L Stainless Steel		B : BA Grade	Blank : Standard								
			OP: Normal Open	1F23	DL : 316L Stainless Steel VAR		P : EP Grade	X:Customizatio No.								
				5F12												
				3F12												

Note) DCR : DK-Metal Face Seal

Safe Valve Selection

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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 ⁻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

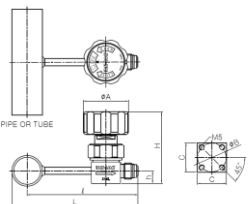
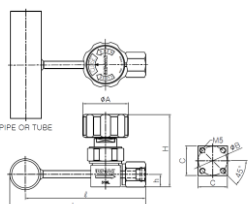
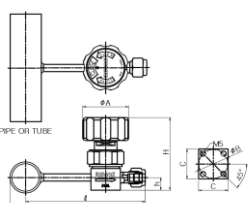
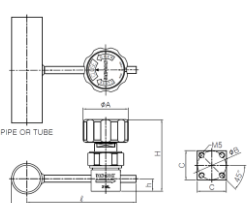
Level	AP	BA	EP
Inner Surface Roughness	Ry ≤ 25 μm	Ry ≤ 3.0 μm / Ra 10μin	Ry ≤ 0.7 μm / Ra 5μin
	Cut off Length : 2.5mm	Cut off Length : 0.8mm	Cut off Length : 0.25mm
	Measuring Length : 12.5mm	Measuring Length : 4mm	Measuring Length : 1.25mm
Polishing	Machining Finish	Machining Finish	Electro Polishing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

Material of Construction

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

U	-	TVDC	-	4	-	DM	-	SL	-	B	-	X
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	4 : 20A.Sch.5 x 1/4"	DM : DCR Male	SL : 316L Stainless Steel	B : BA Grade	Blank : Standard
	6 : 20A.Sch.5 x 3/8"	DF : DCR Female	DL : 316L Stainless Steel VAR	P : EP Grade	X : Customization No.
	8 : 20A.SCH.5 x 1/2"	DK : DK-LOK			
	12 : 20A. Sch.5 x 3/4"	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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Low Pressure Manual Diaphragm Valves

Shut off 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 ⁻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

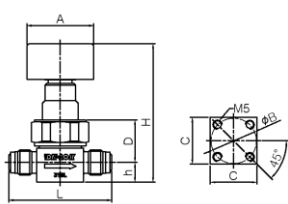
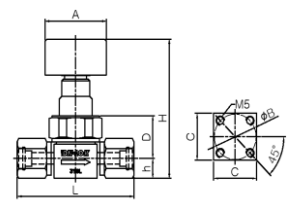
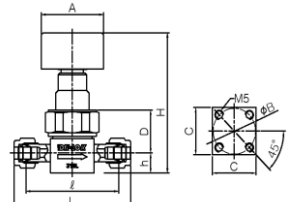
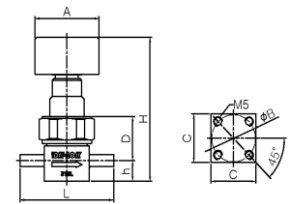
Level	AP	BA	EP
Inner Surface Roughness	Ry ≤ 25 μm	Ry ≤ 3.0 μm / Ra 10μin	Ry ≤ 0.7 μm / Ra 5μin
	Cut off Length : 2.5mm	Cut off Length : 0.8mm	Cut off Length : 0.25mm
	Measuring Length : 12.5mm	Measuring Length : 4mm	Measuring Length : 1.25mm
Polishing	Machining Finish	Machining Finish	Electro Polishing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

Material of Construction

Description	Materials
Body	316L Stainless Steel
	316L Stainless Steel VAR
Seat	PCTFE, PFA, PI
Diaphragm	Ni-Co Alloy, 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-SOVDC4-DM-	1/4" DCR Male	57	11	82.4	37	25.4	26	-
	U-SOVDC8(6)-DM-	1/2" DCR Male	76.2	16	110.8	50	28	37	-
	U-SOVDC12-DM-	3/4" DCR Male	122	22	116.8	50	28	37	-
	U-SOVDC4-DF-	1/4" DCR Female	70.6	11	82.4	37	25.4	26	-
	U-SOVDC8(6)-DF-	1/2" DCR Female	83	16	110.8	50	28	37	-
	U-SOVDC12-DF-	3/4" DCR Female	122	22	116.8	50	28	37	-
	U-SOVDC4-DK-	1/4" DK-LOK	69.5	11	82.4	37	25.4	26	55
	U-SOVDC6-DK-	3/8" DK-LOK	82.5	16	110.8	50	28	37	68
	U-SOVDC8-DK-	1/2" DK-LOK	91	16	110.8	50	28	37	70
	U-SOVDC12-DK-	3/4" DK-LOK	106	22	116.8	50	28	37	84
	U-SOVDC4-TW-	1/4" Tube Butt Weld	54	11	82.4	37	25.4	26	-
	U-SOVDC6-TW-	3/8" Tube Butt Weld	69	16	110.8	50	28	37	-
	U-SOVDC8-TW-	1/2" Tube Butt Weld	69	16	110.8	50	28	37	-
	U-SOVDC12-TW-	3/4" Tube Butt Weld	150	22	116.8	50	28	37	-

How to order

U	-	SOVDC	-	4	-	DM	-	LN	-	SL	-	B	-	X
DK-LOK UHP Product		Valve Type		Size		End Connector Type		Option Type		Material		Inner Surface Level		User Option

Valve Type	Size	End Connector Type	Option Type	Material	Surface Level	User Option
SOVDC	4 : 1/4"	DM : DCR Male	Blank : No option	SL : 316L Stainless Steel	B : BA Grade	Blank : Standard X : Customization No.
	6 : 3/8"	DF : DCR Female	LN : Lock Nut	DL : 316L Stainless Steel VAR	P : EP Grade	
	8 : 1/2"	DK : DK-LOK	LK : Handle Locking			
	12 : 3/4"	TW : Tube Butt Weld	LT : Handle Locking + Lock Nut			

Note) DCR : DK-Metal Face Seal

Safe Valve Selection

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No. SPVDC-1
DEC.2022

Low Pressure Pneumatic Switch 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.
- Valve counter possible via switch

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		
Actuator Pressure Ration	4 ~ 6 bar (58 ~ 87 psig)		
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

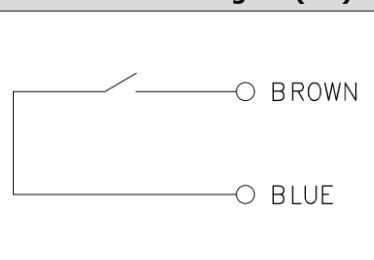
Material of Construction

Description	Materials
Body	316L Stainless Steel
	316L Stainless Steel VAR
Seat	PCTFE
Diaphragm	Ni-Co Alloy, Ni Alloy C22
Actuator	Aluminum

Specifications

Switch Specification	
Working Voltage	DC5 ~ 24V
Steady State Current	≤ 10mA
instantaneous Current	≤ 20mA
Operation Type	Normal Open
Code Length	3m

Switch Circuit Diagram(NO)



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

Ordering Information and Dimensions

Model	Basic Ordering Number	End Connections	Dimensions (mm)							
			L	h	H	A	B	C	D	ℓ
	U-SPVDC4-DM-	1/4" DCR Male	57	11	67	42	25.4	26	27.2	-
	U-SPVDC8-DM-	1/2" DCR Male	76.2	16	83.8	55	28	37	27.2	-
	U-SPVDC12-DM-	3/4" DCR Male	122	22	89.8	55	28	37	27.2	-
	U-SPVDC4-DF-	1/4" DCR Female	70.6	11	67	42	25.4	26	27.2	-
	U-SPVDC8-DF-	1/2" DCR Female	83	16	83.8	55	28	37	27.2	-
	U-SPVDC12-DF-	3/4" DCR Female	122	22	89.8	55	28	37	27.2	-
	U-SPVDC4-DK-	1/4" DK-LOK	69.5	11	67	42	25.4	26	27.2	55
	U-SPVDC6-DK-	3/8" DK-LOK	82.5	16	83.8	55	28	37	27.2	68
	U-SPVDC8-DK-	1/2" DK-LOK	91	16	83.8	55	28	37	27.2	70
	U-SPVDC12-DK-	3/4" DK-LOK	106	22	89.8	55	28	37	27.2	84
	U-SPVDC4-TW-	1/4" Tube Butt Weld	54	11	67	42	25.4	26	27.2	-
	U-SPVDC6-TW-	3/8" Tube Butt Weld	69	16	83.8	55	28	37	27.2	-
	U-SPVDC8-TW-	1/2" Tube Butt Weld	69	16	83.8	55	28	37	27.2	-
	U-SPVDC12-TW-	3/4" Tube Butt Weld	150	22	89.8	55	28	37	27.2	-

How to order

U	-	SPVDC	-	4	-	DM	-	SL	-	B	-	X
DK-LOK UHP Product		Valve Type		Size		End Connector Type		Material		Inner Surface Level		User Option

Valve Type	Size	End Connector Type	Material	Surface Level	User Option
SPVDC	4 : 1/4"	DM : DCR Male	SL : 316L Stainless Steel	B : BA Grade	Blank : Standard
	6 : 3/8"	DF : DCR Female	DL : 316L Stainless Steel VAR	P : EP Grade	X : Customization No.
	8 : 1/2"	DK : DK-LOK			
	12 : 3/4"	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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		E-mail : sales@dklok.com		E-mail : dklok@dklok.com	



Low Pressure Pneumatic Mini 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"
Cv Value	0.1
Max. Working Pressure	10 bar (145 psig)
Max. Working Temperature	PCTFE : -10° ~ 80°C / PFA, PI : -10° ~ 150°C
Actuator Pressure Ration	4 ~ 6 bar (58 ~ 87 psig)
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

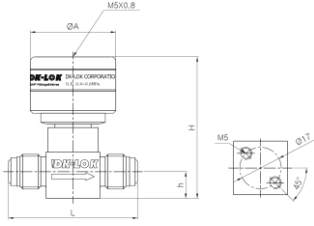
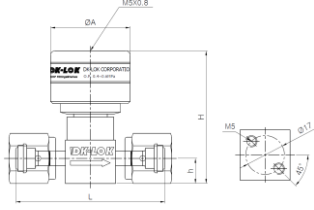
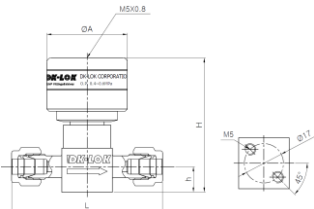
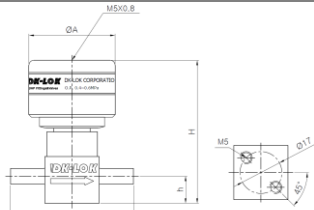
Level	AP	BA	EP
Inner Surface Roughness	Ry ≤ 25 μm	Ry ≤ 3.0 μm / Ra 10μin	Ry ≤ 0.7 μm / Ra 5μin
	Cut off Length : 2.5mm	Cut off Length : 0.8mm	Cut off Length : 0.25mm
	Measuring Length : 12.5mm	Measuring Length : 4mm	Measuring Length : 1.25mm
Polishing	Machining Finish	Machining Finish	Electro Polishing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

Material of Construction

Description	Materials
Body	316L Stainless Steel
	316L Stainless Steel VAR
Seat	PCTFE, PFA, PI
Diaphragm	Ni-Co Alloy
Actuator	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
	U-MPVDC4-DM-	1/4" DCR Male	53	11	58	35	17	22
	U-MPVDC4-DF-	1/4" DCR Female	66	11	58	35	17	22
	U-MPVDC4-DK-	1/4" DK-LOK	65.5	11	58	35	17	22
	U-MPVDC4-TW-	1/4" Tube Butt Weld	50	11	58	35	17	22

How to order

U

DK-LOK
UHP Product

-

MPVDC

Valve Type

-

4

Size

-

DM

End Connector
Type

-

C

Operation Type

-

SL

Material

-

B

Inner
Surface Level

-

X

User Option

Valve Type	Size	End Connector Type	Operation Type	Material	Surface Level	User Option
MPVDC	4 : 1/4"	DM : DCR Male	C : Normal Close	SL : 316L Stainless Steel	B : BA Grade	Blank : Standard
		DF : DCR Female		DL : 316L Stainless Steel VAR	P : EP Grade	X : Customization No.
		DK : DK-LOK				
		TW : Tube Butt Weld				

Note) DCR : DK-Metal Face Seal

Safe Valve Selection

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No. MTV-1
OCT.2022

Low Pressure Diaphragm Metering Valves Standard Type



Features

- 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.
- Precise Micrometer Handle

Specification

Size	1/4"	
Cv Value	0.03	0.065
Max. Working Pressure	10 bar (145 psig)	
Max. Working Temperature	-10° ~ 150°C	
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

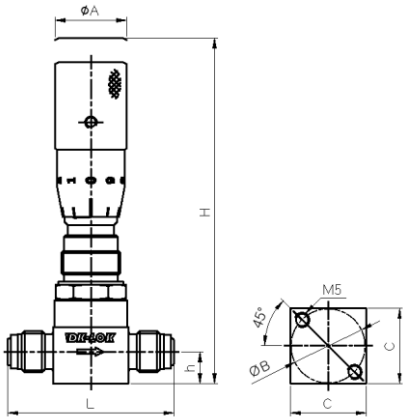
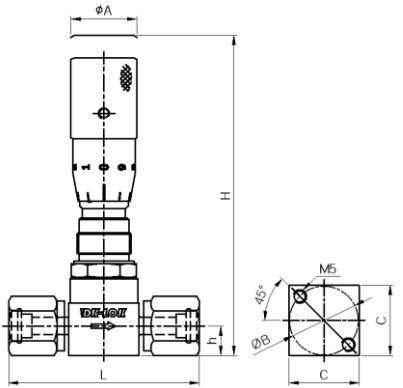
Level	AP	BA	EP
Inner Surface Roughness	Ry ≤ 25 μm	Ry ≤ 3.0 μm / Ra 10μin	Ry ≤ 0.7 μm / Ra 5μin
	Cut off Length : 2.5mm	Cut off Length : 0.8mm	Cut off Length : 0.25mm
	Measuring Length : 12.5mm	Measuring Length : 4mm	Measuring Length : 1.25mm
Polishing	Machining Finish	Machining Finish	Electro Polishing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

Material of Construction

Description	Materials
Body	316L Stainless Steel
	316L Stainless Steel VAR
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
	U-MTV4-DM-	1/4" DCR Male	57	11	118.4	24.4	25.4	26
	U-MTV4-DF-	1/4" DCR Female	70.6	11	118.4	24.4	25.4	26

How to order

U

DK-LOK
UHP Product

-

MTV

Valve Type

-

4

Size

-

DM

End Connector Type

-

C1

Option

-

SL

Material

-

B

Inner Surface Level

-

X

User Option

Valve Type	Size	End Connector Type	Option	Material	Surface Level	User Option
MTV	4 : 1/4"	DM : DCR Male DF : DCR Female	Blank : Without Cap C : With Cap Blank : 0.03 1 : 0.065	SL : 316L Stainless Steel DL : 316L Stainless Steel VAR	B : BA Grade P : EP Grade	Blank : Standard X : Customization No.

Note) DCR : DK-Metal Face Seal

Safe Valve Selection

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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

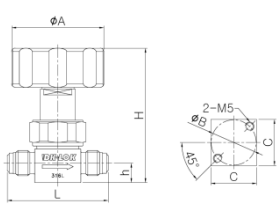
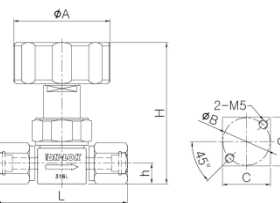
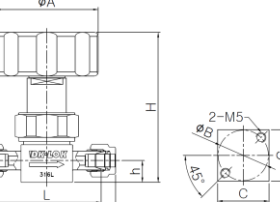
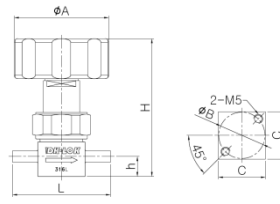
Level	AP	BA	EP
Inner Surface Roughness	Ry ≤ 25 μm	Ry ≤ 3.0 μm / Ra 10μin	Ry ≤ 0.7 μm / Ra 5μin
	Cut off Length : 2.5mm	Cut off Length : 0.8mm	Cut off Length : 0.25mm
	Measuring Length : 12.5mm	Measuring Length : 4mm	Measuring Length : 1.25mm
Polishing	Machining Finish	Machining Finish	Electro Polishing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

U	-	HPVDC	-	4	-	DM	-	SL	-	B	-	X
DK-LOK UHP Product		Valve Type		Size		End Connector Type		Material		Inner Surface Level		User Option

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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High Pressure Pneumatic 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"
Cv Value	0.1
Max. Working Pressure	206 bar (3,000 psig)
Max. Working Temperature	PCTFE : -10° ~ 80°C / PFA, PI : -10° ~ 150°C
Actuator Pressure Ration	5 ~ 7 bar (73 ~ 102 psig)
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

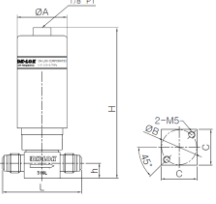
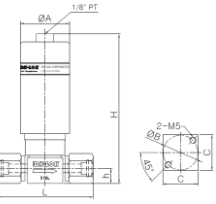
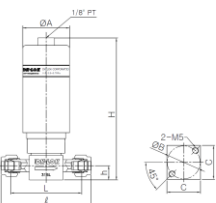
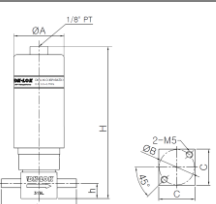
Level	AP	BA	EP
Inner Surface Roughness	Ry ≤ 25 μm	Ry ≤ 3.0 μm / Ra 10μin	Ry ≤ 0.7 μm / Ra 5μin
	Cut off Length : 2.5mm	Cut off Length : 0.8mm	Cut off Length : 0.25mm
	Measuring Length : 12.5mm	Measuring Length : 4mm	Measuring Length : 1.25mm
Polishing	Machining Finish	Machining Finish	Electro Polishing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

Material of Construction

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

- 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-HPPVDC4-DM-	1/4" DCR Male	57	11	109.2	36	25.4	26	
	U-HPPVDC4-DF-	1/4" DCR Female	70.6	11	109.2	36	25.4	26	
	U-HPPVDC4-DK-	1/4" DK-LOK	55	11	109.2	36	25.4	26	69.5
	U-HPPVDC4-TW-	1/4" Tube Butt Weld	54	11	109.2	36	25.4	26	

How to order

U	-	HPPVDC	-	4	-	DM	-	SL	-	B	-	X
DK-LOK UHP Product		Valve Type		Size		End Connector Type		Material		Inner Surface Level		User Option

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

Note) DCR : DK-Metal Face Seal

Safe Valve Selection

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High Pressure/High Flow Manual Diaphragm Valves

Standard Spring Type



Features

- 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.
- PCTFE seat material with remarkable chemical & thermal resistance.

Specification

Size	3/8"	1/2"
Cv Value	0.8	
Max. Working Pressure	206 bar (3000 psig)	
Max. Working Temperature	-10° ~ 80°C (-23~176°F)	
Internal Leakage Allowance – He Holding Time ≥ 15 sec	≤ 4x10 ⁻⁹ atm.cc/s	
External Leakage Allowance – He Holding Time ≥ 1 min	≤ 4x10 ⁻⁹ atm.cc/s	
Particle Inspection (EP Only) Pressure : 60~80psi N2 Gas Sample Volume : 1CFM 0.1 μm and Larger	No count	

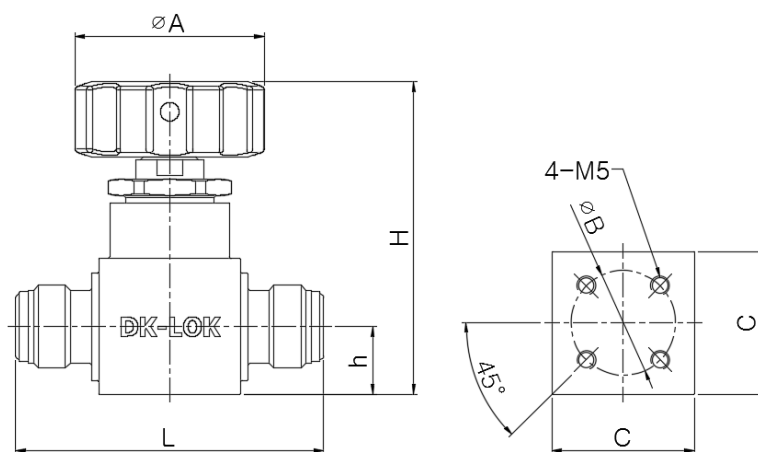
Product Grade

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
Button	
Seat	PCTFE
Spring	316L Stainless Steel
Diaphragm	Ni-Co Alloy
Handle	Aluminum

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



Ordering Information and Dimensions

Basic Ordering Number	End Connections	Dimensions (mm)					
		L	h	H	A	B	C
U-HPFSVDC8-DM-	1/2" DCR Male	82.5	18	83.5	52	28	38.1
U-HPFSVDC8-DF-	1/2" DCR Female	98.8	18	83.5	52	28	38.1
U-HPFSVDC6-DK-	3/8" DK-LOK	83.0	18	83.5	52	28	38.1
U-HPFSVDC8-DK-	1/2" DK-LOK	88.2	18	83.5	52	28	38.1
U-HPFSVDC6-TW-	3/8" Tube Butt Weld	90.9	18	83.5	52	28	38.1
U-HPFSVDC8-TW-	1/2" Tube Butt Weld	90.9	18	83.5	52	28	38.1

How to order

U	-	HPFSVDC		8	-	DM	-	SL		B	-	X
DK-LOK UHP Product		Valve Type		Size		End Connector Type		Material		Inner Surface Level		User Option

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

Note) DCR : DK-Metal Face Seal

Safe Valve Selection

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No.HPFSPVDC-1
DEC.2021

High Pressure/High Flow Pneumatic Diaphragm Valves

Standard Spring Type



Features

- 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	3/8"	1/2"
Cv Value	0.8	
Max. Working Pressure	206 bar (3000 psig)	
Max. Working Temperature	-10° ~ 80°C (-23~176°F)	
Actuator Pressure Rating	5 ~ 7 bar (72.5 ~ 101.5 psig)	
Internal Leakage Allowance – He Holding Time ≥ 15 sec	≤ 4x10 ⁻⁹ atm.cc/s	
External Leakage Allowance – He Holding Time ≥ 1 min	≤ 4x10 ⁻⁹ atm.cc/s	
Particle Inspection (EP Only) Pressure : 60~80psi N2 Gas Sample Volume : 1CFM 0.1 μm and Larger	No count	

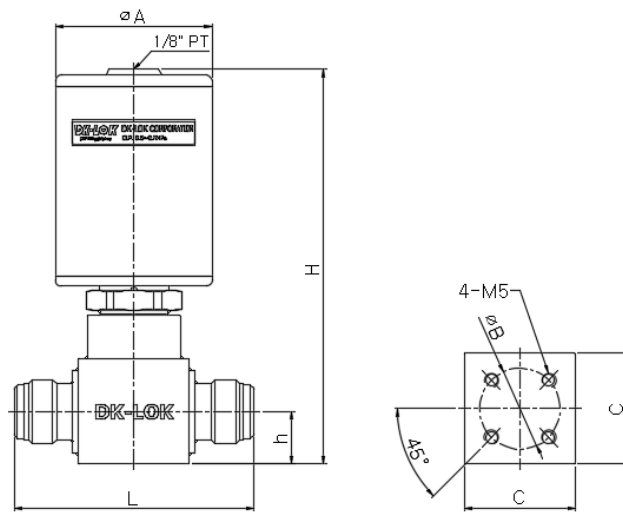
Product Grade

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
Button	
Seat	PCTFE
Spring	316L Stainless Steel
Diaphragm	Ni-Co Alloy
Actuator	Aluminum

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



Ordering Information and Dimensions

Basic Ordering Number	End Connections	Dimensions (mm)					
		L	h	H	A	B	C
U-HPFSPVDC8-DM-	1/2" DCR Male	82.5	18	136	54	28	38.1
U-HPFSPVDC8-DF-	1/2" DCR Female	98.8	18	136	54	28	38.1
U-HPFSPVDC6-DK-	3/8" DK-LOK	83.0	18	136	54	28	38.1
U-HPFSPVDC8-DK-	1/2" DK-LOK	88.2	18	136	54	28	38.1
U-HPFSPVDC6-TW-	3/8" Tube Butt Weld	90.9	18	136	54	28	38.1
U-HPFSPVDC8-TW-	1/2" Tube Butt Weld	90.9	18	136	54	28	38.1

How to order

U	-	HPFSPVDC	-	8	-	DM	-	C	-	SL	-	B	-	X
DK-LOK UHP Product		Valve Type		Size		End Connector Type		Operation Type		Material		Inner Surface Level		User Option

Valve Type	Size	End Connector Type	Operation Type	Material	Surface Level	User Option
HPFSPVDC	6 : 3/8"	DM : DCR Male	C : Normal Close	SL : 316L Stainless Steel	B : BA Grade	Black : Standard
	8 : 1/2"	DF : DCR Female	O : Normal Open	DL : 316L Stainless Steel VAR	P : EP Grade	X : Customization No.
		DK : DK-LOK				
		TW : Tube Butt Weld				

Note) DCR : DK-Metal Face Seal

Safe Valve Selection

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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 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

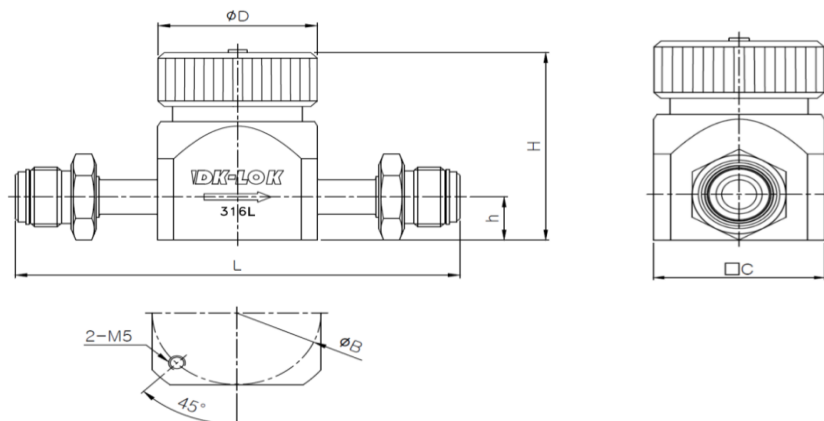
Level	AP	BA	EP
Inner Surface Roughness	Ry ≤ 25 μm	Ry ≤ 3.0 μm / Ra 10μin	Ry ≤ 0.7 μm / Ra 5μin
	Cut off Length : 2.5mm	Cut off Length : 0.8mm	Cut off Length : 0.25mm
	Measuring Length : 12.5mm	Measuring Length : 4mm	Measuring Length : 1.25mm
Polishing	Machining Finish	Machining Finish	Electro Polishing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

Material of Construction

Description	Materials
Body	316L Stainless Steel
	316L Stainless Steel VAR
Seat	PCTFE
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

U	-	HFVDC		8	-	DM	-	P0	-	SL		B	-	X
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	8 : 1/2"	DM : DCR Male	Blank : No Purge Port	SL : 316L Stainless Steel	B : BA Grade	Blank : Standard
	12 : 3/4"	DF : DCR Female	P0 : Inlet Purge Port 1/4" DCR Male	DL : 316L Stainless Steel VAR	P : EP Grade	X : Customization No.
	16 : 1"	TW : Tube Butt Weld	P1 : Inlet Purge Port 1/4" DCR Female			
			P2 : Outlet Purge Port 1/4" DCR Male			
			P3 : Outlet Purge Port 1/4" DCR Female			
			P4 : In/Out Purge Port 1/4" DCR Male			
			P5 : In/Out Purge Port 1/4" DCR Female			

Note) DCR : DK-Metal Face Seal

Safe Valve Selection

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No. DVDC-1
MAY.2022

Low Pressure Manual Diaphragm Valves

DK-LOK DP Series



Features

- Suitable for ultrahigh-purity applications.
- Dimensions follow Semi-spec.
- Quick, quarter-turn actuation.
- Max Working Pressure 250 psig (17.2 bar).
- Elgiloy diaphragm material with strong durability as well as corrosion resistance for long cycle life.
- DI water cleaned, assembled, tested & packaged In the certified clean room.

Specification

Size	1/4"
Cv Value	0.27, 0.5
Max. Working Pressure	250 psig (17.2 bar)
Max. Working Temperature	PCTFE : -10 to 150°F (-23° ~ 65°C) / PI : 50 to 300°F (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

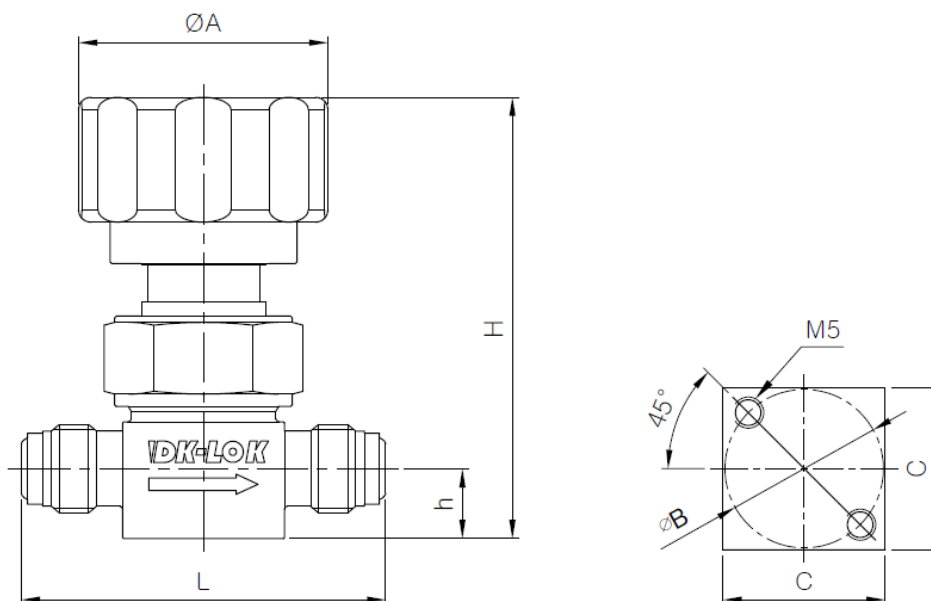
Level	AP	BA	EP
Inner Surface Roughness	Ry ≤ 25 μm	Ry ≤ 3.0 μm / Ra 10μin	Ry ≤ 0.7 μm / Ra 5μin
	Cut off Length : 2.5mm	Cut off Length : 0.8mm	Cut off Length : 0.25mm
	Measuring Length : 12.5mm	Measuring Length : 4mm	Measuring Length : 1.25mm
Polishing	Machining Finish	Machining Finish	Electro Polishing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

Material of Construction

Description	Materials
Body	316L Stainless Steel
	316L VAR Stainless Steel, Hastelloy
Seat	PCTFE, PI , PFA
Diaphragm	Ni-Co Alloy, Ni Alloy C22
Handle	Aluminum

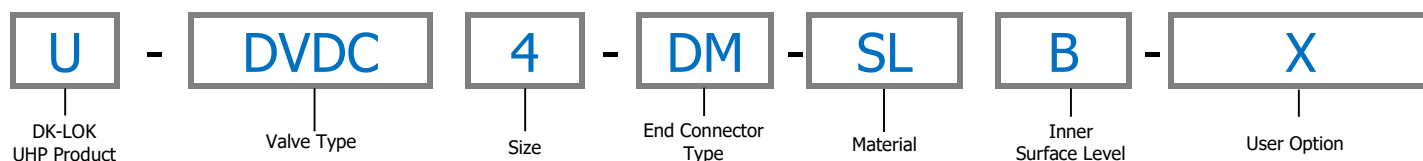
- Wetted Components are listed in [blue](#)

Ordering Information and Dimensions



End Connections	Dimensions (mm)					
Basic Ordering Number	L	h	H	A	B	C
1/4" DCR Male U-DVDC4-DM-	58.4	11.2	69.5	40	25.4	26
1/4" DCR Female U-DVDC4-DF-						
1/4" DK-LOK U-DVDC4-DK-	62.5	11.2	69.5	40	25.4	26
1/4" Tube Butt Weld U-DVDC4-TW-						
	44.2	11.2	69.5	40	25.4	26

How to order



Valve Type	Size	End Connector Type	Material	Surface Level	User Option
DVDC	4 : 1/4"	DM : DCR Male	SL : 316L Stainless Steel	B : BA Grade	Blank : Standard
		DF : DCR Female	DL : 316L VAR Stainless Steel	P : EP Grade	X : Customization No.
		DK : DK-LOK	TL : 316L VIM-VAR Stainless Steel		
		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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No. DPVDC-1
DEC.2021

Low Pressure Pneumatic Diaphragm Valves

DK-LOK DP Series



Features

- Suitable for ultrahigh-purity applications.
- Dimensions follow Semi-spec.
- Max Working Pressure 250 psig (17.2 bar).
- Elgiloy diaphragm material with strong durability as well as corrosion resistance for long cycle life.
- DI water cleaned, assembled, tested & packaged In the certified clean room.

Specification

Size	1/4"
Cv Value	0.27, 0.5
Max. Working Pressure	250 psig (17.2 bar)
Max. Working Temperature	PCTFE : -10 to 150°F (-23° ~ 65°C) / PI : 50 to 300°F (10° ~ 150°C)
Actuator Pressure	4.2 ~ 8.2 bar (60 ~ 120 psig)
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

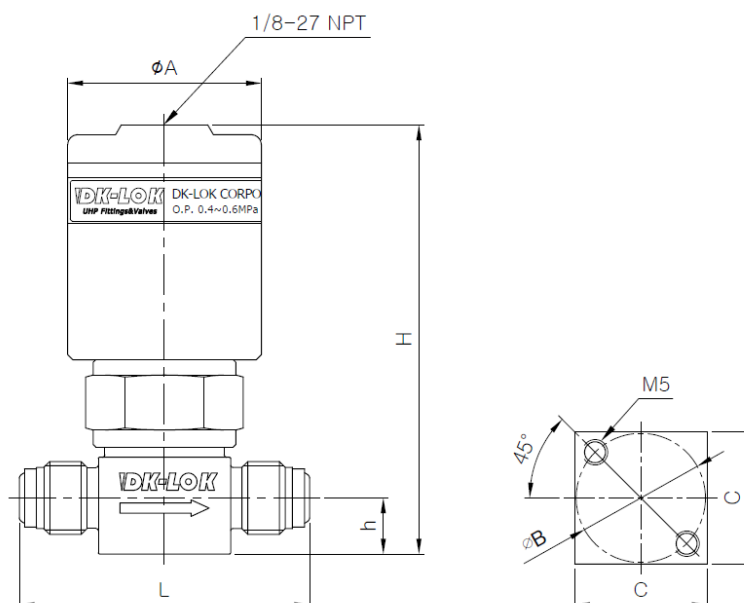
Level	AP	BA	EP
Inner Surface Roughness	Ry ≤ 25 μm	Ry ≤ 3.0 μm / Ra 10μin	Ry ≤ 0.7 μm / Ra 5μin
	Cut off Length : 2.5mm	Cut off Length : 0.8mm	Cut off Length : 0.25mm
	Measuring Length : 12.5mm	Measuring Length : 4mm	Measuring Length : 1.25mm
Polishing	Machining Finish	Machining Finish	Electro Polishing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

Material of Construction

Description	Materials
Body	316L Stainless Steel
	316L VAR Stainless Steel, Hastelloy
Seat	PCTFE, PI , PFA
Diaphragm	Ni-Co Alloy, Ni Alloy C22
Actuator	Aluminum

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

Ordering Information and Dimensions



End Connections	Dimensions (mm)					
Basic Ordering Number	L	h	H	A	B	C
1/4" DCR Male	58.4	11.2	84.2	38	25.4	26
U-DPVDC4-DM-						
1/4" DCR Female	70.6	11.2	84.2	38	25.4	26
U-DPVDC4-DF-						
1/4" DK-LOK	62.5	11.2	84.2	38	25.4	26
U-DPVDC4-DK-						
1/4" Tube Butt Weld	44.2	11.2	84.2	38	25.4	26
U-DPVDC4-TW-						

※ Air inlet 1/8-27 NPT

How to order

U	-	DPVDC	-	4	-	DM	-	C	-	SL	-	B	-	X
DK-LOK UHP Product		Valve Type		Size		End Connector Type		Operation Type		Material		Inner Surface Level		User Option

Valve Type	Size	End Connector Type	Operation Type	Material	Surface Level	User Option
DPVDC	4 : 1/4"	DM : DCR Male	C : Normal Close	SL : 316L Stainless Steel	B : BA Grade	Blank : Standard
		DF : DCR Female		DL : 316L VAR Stainless Steel	P : EP Grade	X : Customization No.
		DK : DK-LOK		TL : 316L VIM-VAR Stainless Steel		
		TW : Tube Butt Weld				

Note) DCR : DK-Metal Face Seal

Safe Valve Selection

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High Pressure Manual Diaphragm Valves

DK-LOK DP Series

No. DHVDC-1
MAY.2022



Features

- Suitable for ultrahigh-purity applications.
- Dimensions follow Semi-spec.
- Quick, quarter-turn actuation.
- Max Working Pressure 3045 psig (210 bar).
- Elgiloy diaphragm material with strong durability as well as corrosion resistance for long cycle life.
- DI water cleaned, assembled, tested & packaged In the certified clean room.

Specification

Size	1/4"
Cv Value	0.2
Max. Working Pressure	3045 psig (210 bar)
Max. Working Temperature	PCTFE : -10 to 150°F (-23° ~ 65°C) / PI : 50 to 300°F (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

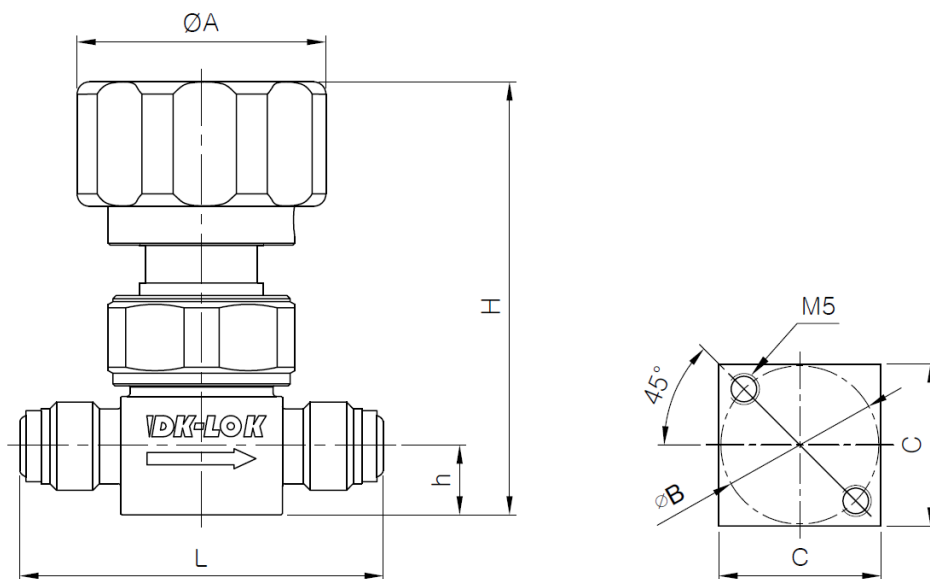
Level	AP	BA	EP
Inner Surface Roughness	Ry ≤ 25 μm	Ry ≤ 3.0 μm / Ra 10μin	Ry ≤ 0.7 μm / Ra 5μin
	Cut off Length : 2.5mm	Cut off Length : 0.8mm	Cut off Length : 0.25mm
	Measuring Length : 12.5mm	Measuring Length : 4mm	Measuring Length : 1.25mm
Polishing	Machining Finish	Machining Finish	Electro Polishing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

Material of Construction

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

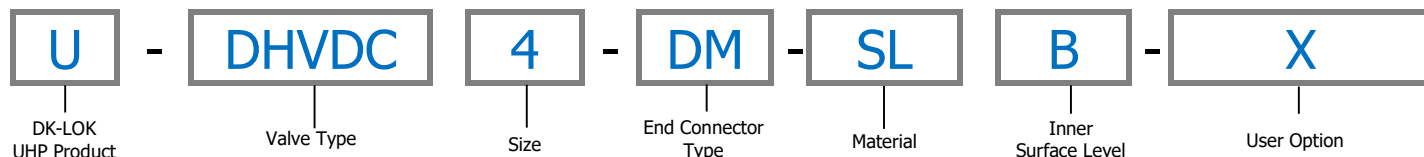
- Wetted Components are listed in [blue](#)

Ordering Information and Dimensions



End Connections	Dimensions (mm)					
Basic Ordering Number	L	h	H	A	B	C
1/4" DCR Male	58.4	11.2	71	40	25.4	26
U-DHVDC4-DM-						
1/4" DCR Female	70.6	11.2	71	40	25.4	26
U-DHVDC4-DF-						
1/4" DK-LOK	62.5	11.2	71	40	25.4	26
U-DHVDC4-DK-						
1/4" Tube Butt Weld	44.2	11.2	71	40	25.4	26
U-DHVDC4-TW-						

How to order



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

Note) DCR : DK-Metal Face Seal

Safe Valve Selection

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High Pressure Pneumatic Diaphragm Valves

DK-LOK DP Series



Features

- Suitable for ultrahigh-purity applications.
- Dimensions follow Semi-spec.
- Max Working Pressure 3045 psig (210 bar).
- Elgiloy diaphragm material with strong durability as well as corrosion resistance for long cycle life.
- DI water cleaned, assembled, tested & packaged In the certified clean room.

Specification

Size	1/4"
Cv Value	0.2
Max. Working Pressure	3045 psig (210 bar)
Max. Working Temperature	PCTFE : -10 to 150°F (-23° ~ 65°C) / PI : 50 to 300°F (10° ~ 150°C)
Actuator Pressure	4.9 ~ 8.2 bar (70 ~ 120 psig)
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

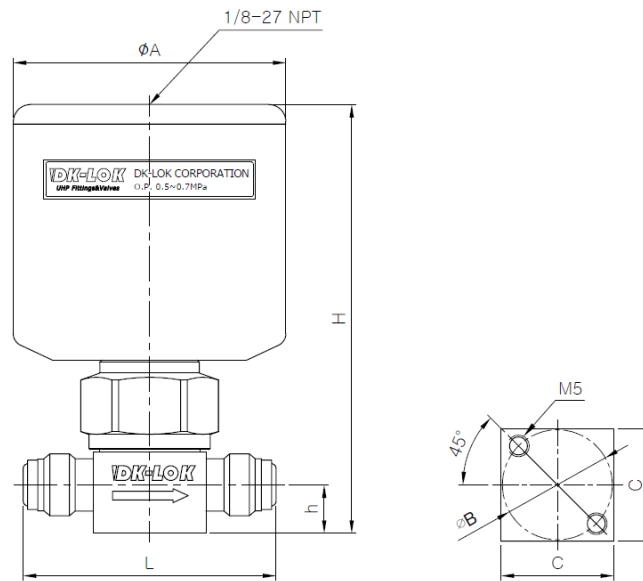
Level	AP	BA	EP
Inner Surface Roughness	Ry ≤ 25 μm	Ry ≤ 3.0 μm / Ra 10μin	Ry ≤ 0.7 μm / Ra 5μin
	Cut off Length : 2.5mm	Cut off Length : 0.8mm	Cut off Length : 0.25mm
	Measuring Length : 12.5mm	Measuring Length : 4mm	Measuring Length : 1.25mm
Polishing	Machining Finish	Machining Finish	Electro Polishing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

Material of Construction

Description	Materials
Body	316L Stainless Steel
	316L VAR Stainless Steel / 316L VIM-VAR Stainless Steel
Seat	PCTFE, PI
Diaphragm	Ni-Co Alloy
Actuator	Aluminum

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

Ordering Information and Dimensions



End Connections	Dimensions (mm)					
Basic Ordering Number	L	h	H	A	B	C
1/4" DCR Male U-DHPVDC4-DM-	58.4	11.2	99	63	25.4	26
1/4" DCR Female U-DHPVDC4-DF-						
1/4" DK-LOK U-DHPVDC4-DK-	62.5	11.2	99	63	25.4	26
1/4" Tube Butt Weld U-DHPVDC4-TW-						
1/4" Tube Butt Weld U-DHPVDC4-TW-	44.2	11.2	99	63	25.4	26

※Air inlet 1/8-27 NPT

How to order

U DK-LOK UHP Product	-	DHPVDC Valve Type	-	4 Size	-	DM End Connector Type	-	C Operation Type	-	SL Material	-	B Inner Surface Level	-	X User Option
Valve Type	Size	End Connector Type	Operation Type	Material		Surface Level	User Option							
DHPVDC	4 : 1/4"	DM : DCR Male	C : Normal Close	SL : 316L Stainless Steel		B : BA Grade	Blank : Standard							
		DL : 316L VAR Stainless Steel												
		TL : 316L VIM-VAR Stainless Steel												
		DF : DCR Female				P : EP Grade	X : Customization No.							
		DK : DK-LOK												
		TW : Tube Butt Weld												

Note) DCR : DK-Metal Face Seal

Safe Valve Selection

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High Pressure Manual Diaphragm Valves

DK-LOK DL Series



Features

- Packless, all-metal containment.
- Dimensions follow Semi-spec.
- Max Working Pressure 3500 psig (241 bar).
- Temperatures from -100 to 250°F (-73 to 121°C).
- DK-LOK DL series diaphragm valve require just one-quarter turn of the handle to actuate the valve from fully open to closed.
- DI water cleaned, assembled, tested & packaged
In the certified clean room.

Specification

Size	1/4"
Cv Value	0.14
Max. Working Pressure	3500 psig (241 bar)
Differential Back Pressure	1500 psig (103 bar)
Max. Working Temperature	PCTFE : -100 to 250°F (-73 ~ 121°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

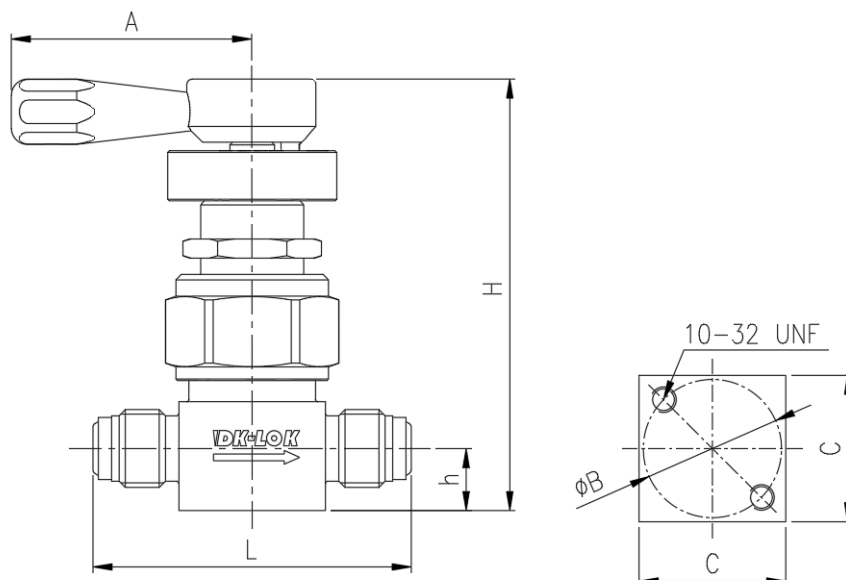
Level	AP	BA	EP
Inner Surface Roughness	Ry ≤ 25 μm	Ry ≤ 3.0 μm / Ra 10μin	Ry ≤ 0.7 μm / Ra 5μin
	Cut off Length : 2.5mm	Cut off Length : 0.8mm	Cut off Length : 0.25mm
	Measuring Length : 12.5mm	Measuring Length : 4mm	Measuring Length : 1.25mm
Polishing	Machining Finish	Machining Finish	Electro Polishing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

Material of Construction

Description	Materials
Body	316L Stainless Steel
Holder	316L VAR Stainless Steel
Seat	PCTFE, PTFE, PI
Spring	316L Stainless Steel
Diaphragm	Ni-Co Alloy
Handle	Aluminum

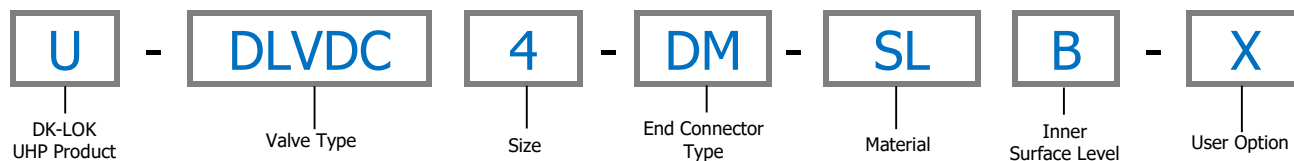
- Wetted Components are listed in [blue](#)

Ordering Information and Dimensions



End Connections Basic Ordering Number	Dimensions (mm)					
	L	h	H	A	B	C
1/4" DCR Male U-DLVDC4-DM-	58.4	11.4	79.2	44.2	25.4	26.9
1/4" DCR Female U-DLVDC4-DF-						
1/4" DK-LOK U-DLVDC4-DK-	62.5	11.4	79.2	44.2	25.4	26.9
1/4" Tube Butt Weld U-DLVDC4-TW-						

How to order



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

Note) DCR : DK-Metal Face Seal

Safe Valve Selection

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High Pressure Manual Diaphragm Valves

DK-LOK DS Series



Features

- Packless, all-metal containment.
- Dimensions follow Semi-spec.
- Max Working Pressure 3500 psig (241 bar).
- Temperatures from -100 to 250°F (-73 to 121°C).
- DK-LOK DS series diaphragm valve require approximately one and one-half turns to operate from fully open to closed.
- DI water cleaned, assembled, tested & packaged In the certified clean room.

Specification

Size	1/4"
Cv Value	0.3
Max. Working Pressure	3500 psig (241 bar)
Differential Back Pressure	1500 psig (103 bar)
Max. Working Temperature	PCTFE : -100 to 250°F (-73 ~ 121°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

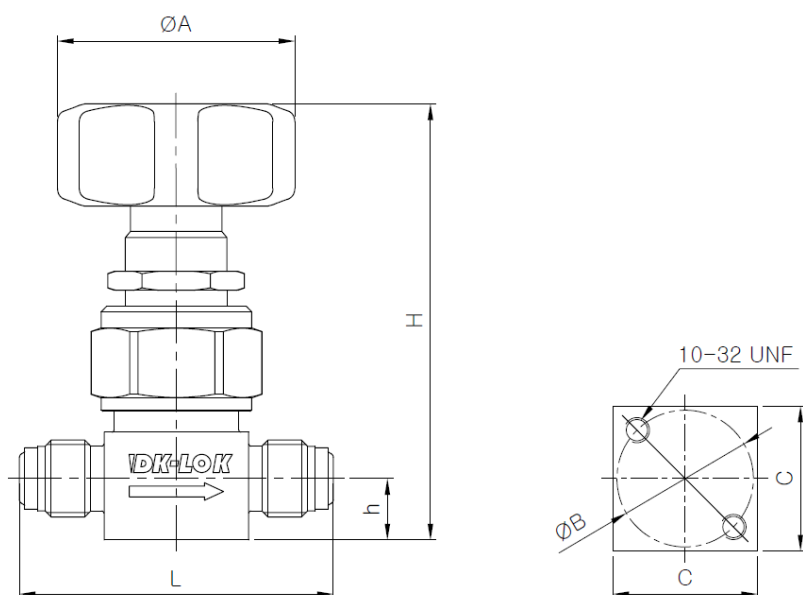
Level	AP	BA	EP
Inner Surface Roughness	Ry ≤ 25 μm	Ry ≤ 3.0 μm / Ra 10μin	Ry ≤ 0.7 μm / Ra 5μin
	Cut off Length : 2.5mm	Cut off Length : 0.8mm	Cut off Length : 0.25mm
	Measuring Length : 12.5mm	Measuring Length : 4mm	Measuring Length : 1.25mm
Polishing	Machining Finish	Machining Finish	Electro Polishing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

Material of Construction

Description	Materials
Body	316L Stainless Steel
Holder	
Seat	PCTFE, PTFE, PI
Spring	316L Stainless Steel
Diaphragm	Ni-Co Alloy
Handle	Aluminum

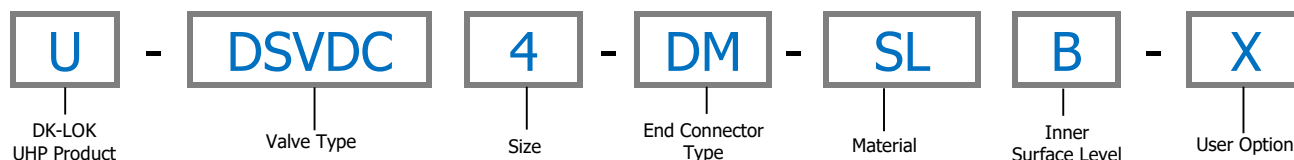
- Wetted Components are listed in [blue](#)

Ordering Information and Dimensions



End Connections	Dimensions (mm)					
Basic Ordering Number	L	h	H	A	B	C
1/4" DCR Male U-DSVDC4-DM-	58.4	11.4	79.2	47	25.4	26.9
1/4" DCR Female U-DSVDC4-DF-						
1/4" DK-LOK U-DSVDC4-DK-	62.5	11.4	79.2	47	25.4	26.9
1/4" Tube Butt Weld U-DSVDC4-TW-						
	44.2	11.4	79.2	47	25.4	26.9

How to order



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

Note) DCR : DK-Metal Face Seal

Safe Valve Selection

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No. D2PVDC-1
FEB.2025

High Flow Springless Pneumatic Diaphragm Valves

D2 Standard Type



Features

- 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.
- Standard PCTFE Disk Material.

Specification

Size	1/4"	3/8"	1/2"	10MM	12MM
Cv Value	0.62				
Max. Working Pressure	8.6 bar (125 psig)				
Max. Working Temperature	PCTFE : -23° ~ 65°C				
Actuator Pressure Ration	4.6 ~ 6.8 bar (70 ~ 100 psig)				
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

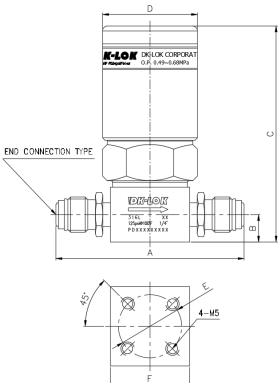
Level	AP	BA	EP
Inner Surface Roughness	Ry ≤ 25 μm	Ry ≤ 3.0 μm / Ra 10μin	Ry ≤ 0.7 μm / Ra 5μin
	Cut off Length : 2.5mm	Cut off Length : 0.8mm	Cut off Length : 0.25mm
	Measuring Length : 12.5mm	Measuring Length : 4mm	Measuring Length : 1.25mm
Polishing	Machining Finish	Machining Finish	Electro Polishing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

Material of Construction

Description	Materials
Body	Stainless Steel 316L
	Stainless Steel 316L VAR, Hastelloy
Seat	PCTFE, PFA, PI
Diaphragm	Ni-Co Alloy, Ni Alloy C22
Actuator	Aluminum

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

Ordering Information and Dimensions

Model	Basic Ordering Number	End Connections	Dimensions (mm)					
			A	B	C	D	E	F
	U-D2PVDC4-C-HDF-	1/4" DCR High Flow Female	70.6	11.1	86.7	38	25.4	31.8
	U-D2PVDC4-C-HDM-	1/4" DCR Rotatable High Flow Male	75.2	11.1	86.7	38	25.4	31.8
	U-D2PVDC8-C-DF-	1/2" DCR Female	106	11.1	86.7	38	25.4	31.8
	U-D2PVDC8-C-DM-	1/2" DCR Rotatable Male	106	11.1	86.7	38	25.4	31.8
	U-D2PVDC6-C-TW-	3/8" Tube Butt Weld	57.1	11.1	86.7	38	25.4	31.8
	U-D2PVDC8-C-TW-	1/2" Tube Butt Weld	57.1	11.1	86.7	38	25.4	31.8
	U-D2PVDC10M-C-TW-	10 mm Tube Butt Weld	57.1	11.1	86.7	38	25.4	31.8
	U-D2PVDC12M-C-TW-	12 mm Tube Butt Weld	57.1	11.1	86.7	38	25.4	31.8

How to order

U	-	D2PVDC	4	-	C	-	HDM	-	SL	B	-	X
DK-LOK UHP Product		Valve Type	Size		Operating Type		End Connector		Material	Inner Surface Level		User Option

Valve Type	Size	End Connector Type	Operation Type	Material	Surface Level	User Option
D2PVDC	1/4" : 4	HDF : DCR High Flow Female	C : Normal Close	SL : Stainless Steel 316L	B : BA Grade	Blank : Standard
	3/8" : 6	HDM : DCR Rotatable High Flow Male		DL : Stainless Steel 316L VAR	P : EP Grade	X : Customization No.
	1/2" : 8	DF : DCR Female				
	10mm : 10M	DM : DCR Rotatable Male				
	12mm : 12M	TW : Tube Butt Weld				

Safe Valve Selection

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No. D2VDC-1
FEB.2025

High Flow Springless Manual Diaphragm Valves

D2 Standard Type



Features

- 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.
- Standard PCTFE Disk Material.

Specification

Size	1/4"	3/8"	1/2"	10MM	12MM
Cv Value	0.62				
Max. Working Pressure	20.6 bar (300 psig)				
Max. Working Temperature	PCTFE : -23° ~ 65°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

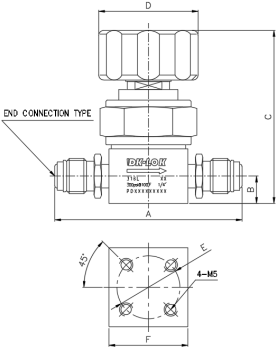
Level	AP	BA	EP
Inner Surface Roughness	Ry ≤ 25 μm	Ry ≤ 3.0 μm / Ra 10μin	Ry ≤ 0.7 μm / Ra 5μin
	Cut off Length : 2.5mm	Cut off Length : 0.8mm	Cut off Length : 0.25mm
	Measuring Length : 12.5mm	Measuring Length : 4mm	Measuring Length : 1.25mm
Polishing	Machining Finish	Machining Finish	Electro Polishing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

Material of Construction

Description	Materials
Body	Stainless Steel 316L
	Stainless Steel 316L VAR, Hastelloy
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)					
			A	B	C	D	E	F
	U-D2VDC4-C-HDF-	1/4" DCR High Flow Female	70.6	11.1	69.7	40	25.4	31.8
	U-D2VDC4-C-HDM-	1/4" DCR Rotatable High Flow Male	75.2	11.1	69.7	40	25.4	31.8
	U-D2VDC8-C-DF-	1/2" DCR Female	106	11.1	69.7	40	25.4	31.8
	U-D2VDC8-C-DM-	1/2" DCR Rotatable Male	106	11.1	69.7	40	25.4	31.8
	U-D2VDC6-C-TW-	3/8" Tube Butt Weld	57.1	11.1	69.7	40	25.4	31.8
	U-D2VDC8-C-TW-	1/2" Tube Butt Weld	57.1	11.1	69.7	40	25.4	31.8
	U-D2VDC10M-C-TW-	10 mm Tube Butt Weld	57.1	11.1	69.7	40	25.4	31.8
	U-D2VDC12M-C-TW-	12 mm Tube Butt Weld	57.1	11.1	69.7	40	25.4	31.8

How to order

U	-	D2VDC	4	-	HDM	-	SL	B	-	X
DK-LOK UHP Product		Valve Type	Size		End Connector		Material	Inner Surface Level		User Option

Valve Type	Size	End Connector Type	Material	Surface Level	User Option
D2VDC	1/4" : 4	HDF : DCR High Flow Female	SL : Stainless Steel 316L	B : BA Grade	Blank : Standard
	3/8" : 6	HDM : DCR Rotatable High Flow Male	DL : Stainless Steel 316L VAR	P : EP Grade	X : Customization No.
	1/2" : 8	DF : DCR Female			
	10mm : 10M	DM : DCR Rotatable Male			
	12mm : 12M	TW : Tube Butt Weld			

Safe Valve Selection

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Features

- Reliability to external leakage improves by unique seal structure, compared with conventional diaphragms valve.
- In maximum working pressure 0.9 MPa Minimal particle generation.
- Flow change is reduced.
- 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.

Specification

Size (DN)	15A	25A (1S)	40A (1.5S)	50A (2S)
Cv Value	4.7	9.5	22.3	39.2
Max. Working Pressure	9 bar (130 psig) at 0° ~ 90°C (32 ~ 195°F)			
Max. Working Temperature	7 bar (100 psig) at 90° ~ 120°C (195 ~ 250°F)			
Actuator Pressure	6 ~ 7 bar (87 ~ 101 psig)			
Internal Leakage Allowance (He) Test Pressure ≤ 1×10 ⁻² Torr Holding Time ≥ 15 sec.	≤ 1×10 ⁻⁵ atm.cc/s			
External Leakage Allowance (He) Test Pressure ≤ 1×10 ⁻² Torr Holding Time ≥ 1 min.	≤ 1×10 ⁻⁵ atm.cc/s			
Particle Inspection (EP only) Pressure : 60~80 psi N2 Gas Sample Volume : 1CFM 0.1μm and Larger	No count			

Product Grade

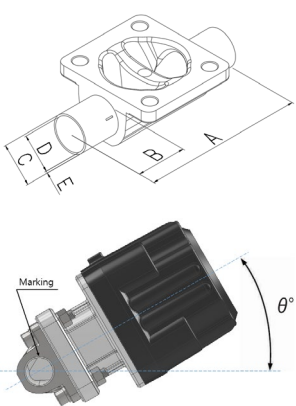
Level	AP	BA	EP
Inner Surface Roughness	Ry ≤ 25 μm	Ry ≤ 3.0 μm / Ra 10μin	Ry ≤ 0.7 μm / Ra 5μin
	Cut off Length : 2.5mm	Cut off Length : 0.8mm	Cut off Length : 0.25mm
	Measuring Length : 12.5mm	Measuring Length : 4mm	Measuring Length : 1.25mm
Polishing	Machining Finish	Machining Finish	Electro Polishing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

Material of Construction

Description	Materials
Body	316L Stainless Steel
Diaphragm	PTFE
Actuator	Aluminum

- Wetted Components are listed in blue.

Ordering Information and Dimensions

Model	Basic Ordering Number	End Connections	Dimensions (mm)						
			Size	A	B	C	D	E	θ°
	U-PVDW15A-TW-	15A Butt Weld	15A	122	28	21.7	17.5	2.1	21
	U- PVDW25A -TW-	25A Butt Weld	25A (1S)	120	26	25.4	23	1.2	30
	U- PVDW40A -TW-	40A Butt Weld	40A (1.5S)	160	30	38.1	35.7	1.2	25
	U- PVDW50A -TW-	50A Butt Weld	50A (2S)	190	39	50.8	47.8	1.5	20

- Sanitary pipes according to the JIS G3447.

How to order

U	-	PVDW	-	15A	-	TW	-	L	-	P	-	X
DK-LOK UHP Product		Valve Type		Size		End Connector Type		Material		Inner Surface Level		User Option

Valve Type	Size	End Connector Type	Material	Surface Level	User Option
PVDW	15A : 15A	TW : Butt Weld	L : 316L Stainless Steel	B : BA Grade P : EP Grade	Blank : Standard
	25A (1S) : 25A				X : Customization No.
	40A (1.5S) : 40A				
	50A (2S) : 50A				

Safe Valve Selection

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No. SRPVDC-1
FEB.2025

Low Pressure Pneumatic Seat replacable Diaphragm Valves

SR Standard Type



Features

- 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.
- Standard PCTFE Disk Material.

Specification

Size	1/4"
Cv Value	0.3 / 0.5
Max. Working Pressure	10 bar (145 psig)
Max. Working Temperature	PCTFE : -10° ~ 80°C
Actuator Pressure Ration	4.8 ~ 7.6 bar (70 ~ 110 psig)
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

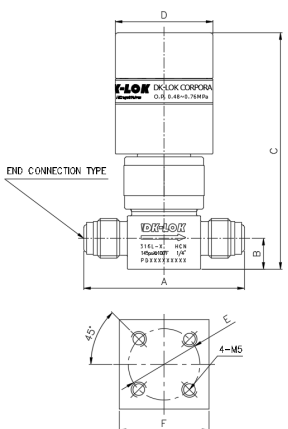
Level	AP	BA	EP
Inner Surface Roughness	Ry ≤ 25 μm	Ry ≤ 3.0 μm / Ra 10μin	Ry ≤ 0.7 μm / Ra 5μin
	Cut off Length : 2.5mm	Cut off Length : 0.8mm	Cut off Length : 0.25mm
	Measuring Length : 12.5mm	Measuring Length : 4mm	Measuring Length : 1.25mm
Polishing	Machining Finish	Machining Finish	Electro Polishing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

Material of Construction

Description	Materials
Body	Stainless Steel 316L
	Stainless Steel 316L VAR, Hastelloy
Seat	PCTFE, PFA, PI
Diaphragm	Ni-Co Alloy, Ni Alloy C22
Actuator	Aluminum

- Wetted Components are listed in blue

Ordering Information and Dimensions

Model	Basic Ordering Number	End Connections	Dimensions (mm)					
			A	B	C	D	E	F
	U-SRPVDC4-HDF-C-□-□-	1/4" DCR High Flow Female	70.6	11	83	38	25.4	26
	U-SRPVDC4-HDM-C-□-□-	1/4" DCR Rotatable High Flow Male	70.6	11	83	38	25.4	26
	U-SRPVDC4-HDMC-C-□-□-	1/4" DCR High Flow Male (Cutting)	57	11	83	38	25.4	26
	U-SRPVDC6-DMC-C-□-□-	3/8" DCR Male (Cutting)	57	11	83	38	25.4	26
	U-SRPVDC6-DF-C-□-□-	3/8" DCR Female	98	11	83	38	25.4	26
	U-SRPVDC6-DM-C-□-□-	3/8" DCR Male	98	11	83	38	25.4	26
	U-SRPVDC4-TW-C-□-□-	1/4" Tube Butt Weld	53.8	11	83	38	25.4	26
	U-SRPVDC6-TW-C-□-□-	3/8" Tube Butt Weld	67.4	11	83	38	25.4	26

How to order

U	-	SRPVDC	4	-	HDM	-	C	-	1	-	1	-	SL	B	-	X
DK-LOK UHP Product		Valve Type	Size		End Connector		Operating Type		CV Type		Air port Type		Material	Inner Surface Level		User Option

Valve Type	Size	End Connector Type	Operation Type	CV	Air port	Material	Surface Level	User Option
SRPVDC	1/4" : 4	HDF : DCR High Flow Female	C : Normal Close	1 : 0.3	1 : Standard Air port	SL : Stainless Steel 316L	B : BA Grade	Blank : Standard
	3/8" : 6	HDM : DCR Rotatable High Flow Male		2 : 0.5	2 : Cylinder Air port	DL : Stainless Steel 316L VAR	P : EP Grade	X : Customization No.
		DF : DCR Female						
		DM : DCR Rotatable Male						
		TW : Tube Butt Weld						

Safe Valve Selection

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No. SRVDC-1
FEB.2025

Low Pressure Manual Seat replacable Diaphragm Valves

SR Standard Type



Features

- 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.
- Standard PCTFE Disk Material.

Specification

Size	1/4"		
Handle Type	Round Handle 90°	Pull Turn Round Handle LOTO 90°	Pull Turn Lever Handle LOTO 90°
CV	0.3	0.3	0.5
Max. Working Pressure	207 bar (3,000 psig)	207 bar (3,000 psig)	17 bar (250 psig)
Max. Working Temperature	PCTFE : -10° ~ 72°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

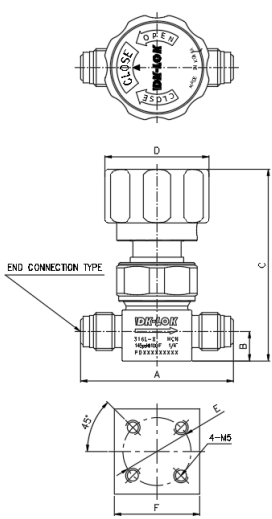
Level	AP	BA	EP
Inner Surface Roughness	Ry ≤ 25 μm	Ry ≤ 3.0 μm / Ra 10μin	Ry ≤ 0.7 μm / Ra 5μin
	Cut off Length : 2.5mm	Cut off Length : 0.8mm	Cut off Length : 0.25mm
	Measuring Length : 12.5mm	Measuring Length : 4mm	Measuring Length : 1.25mm
Polishing	Machining Finish	Machining Finish	Electro Polishing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

Material of Construction

Description	Materials
Body	Stainless Steel 316L
	Stainless Steel 316L VAR, Hastelloy
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)					
			A	B	C	D	E	F
	U-SRVDC4-HDF-□-□-	1/4" DCR High Flow Female	70.6	11	71.5	40	25.4	26
	U-SRVDC4-HDM-□-□-	1/4" DCR Rotatable High Flow Male	70.6	11	71.5	40	25.4	26
	U-SRVDC4-HDMC-□-□-	1/4" DCR High Flow Male (Cutting)	57	11	71.5	40	25.4	26
	U-SRVDC6-DMC-□-□-	3/8" DCR Male (Cutting)	57	11	71.5	40	25.4	26
	U-SRVDC6-DF-□-□	3/8" DCR Female	98	11	71.5	40	25.4	26
	U-SRVDC6-DM-□-□-	3/8" DCR Male	98	11	71.5	40	25.4	26
	U-SRVDC4-TW-□-□-	1/4" Tube Butt Weld	53.8	11	71.5	40	25.4	26
	U-SRVDC6-TW-□-□-	3/8" Tube Butt Weld	67.4	11	71.5	40	25.4	26

How to order

U	-	SRVDC		4	-	HDM	-	1	-	SL	B	-	X
DK-LOK UHP Product		Valve Type		Size		End Connector		CV Type		Material	Inner Surface Level		User Option

Valve Type	Size	End Connector Type	CV	Material	Surface Level	User Option
SRVDC	1/4" : 4	HDF : DCR High Flow Female	1 : 0.3	SL : Stainless Steel 316L	B : BA Grade	Blank : Standard
	3/8" : 6	HDM : DCR Rotatable High Flow Male	2 : 0.5	DL : Stainless Steel 316L VAR	P : EP Grade	X : Customization No.
		DF : DCR Female				
		DM : DCR Rotatable Male				
		TW : Tube Butt Weld				

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