



High Pressure Welding Bonded Check Valves

DK-LOK CW Series



Features

- All-welded design provides reliable containment of system fluid.
- Dimensions follow Semi-spec.
- Max Working Pressure 3000 psig (206 bar).
- DK-LOK's own electropolished.
- DI water cleaned, assembled, tested & packaged in the certified clean room.

Specification

Size	1/4"	1/2"
Cv Value	DCR : 0.7 / DK,TW : 0.55	0.7
Max. Working Pressure	3000 psig (206 bar)	
Max. Working Temperature	-10 to 100°F (-23° ~ 37°C)	
Nominal Cracking Pressure	≤ 0.14bar (2psig)	
Nominal Reseal Pressure	≤ 0.14bar (2psig)	
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

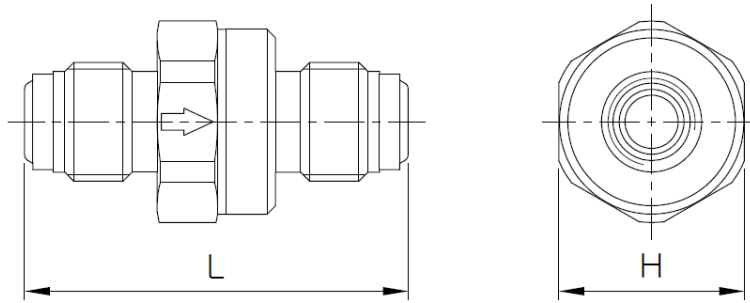
Level	AP	BA	EP
Inner Surface Roughness	Ry ≤ 25 μm	Ry ≤ 3.0 μm / Ra 10μin	Ry ≤ 0.7 μm / Ra 5μin
	Cut off Length : 2.5mm	Cut off Length : 0.8mm	Cut off Length : 0.25mm
	Measuring Length : 12.5mm	Measuring Length : 4mm	Measuring Length : 1.25mm
Polishing	Machining Finish	Machining Finish	Electro Polishing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

Material of Construction

Description	Material
Body	316L Stainless Steel 316L VAR Stainless Steel
Poppet	316L Stainless Steel FKM,FFKM
Guidance wafer	Ni-Co Alloy
Poppet stop	316L Stainless Steel

* Wetted Components are listed in blue.

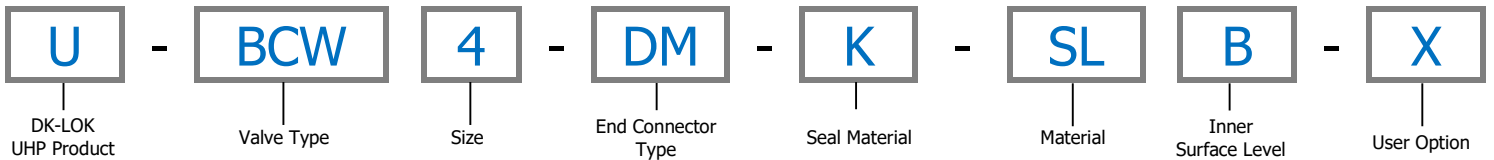
Ordering Information and Dimensions



Basic Ordering Number	Size	End Connections	Dimensions (mm)	
			L	H
U-BCW4-DM-	1/4"	DCR Male	45.7	22.1
U-BCW8-DM-	1/2"		52.3	25.4
U-BCW4-DF-	1/4"	DCR Female	61.7	22.1
U-BCW8-DF-	1/2"		61.7	25.4
U-BCW4-DK-	1/4"	DK-Lok	49.8	22.1
U-BCW6-DK-	3/8"		54.4	25.4
U-BCW8-DK-	1/2"		62.1	25.4
U-BCW4-TW	1/4"	Tube Butt Weld	31.5	22.1
U-BCW6-TW	3/8"		31.5	22.1
U-BCW8-TW	1/2"		31.5	22.1

DK type dimensions are shown with DK-LOK nuts finger-tight.

How to order



Valve Type	Size	End Connector Type	Seal Material	Material	Surface Level	User Option
BCW	4 : 1/4"	DM : DCR Male	Blank : FKM	SL : 316L Stainless Steel	B : BA Grade	Blank : Standard
	6 : 3/8"	DF : DCR Female	K : FFKM	DL : 316L VAR Stainless Steel	P : EP Grade	X : Customization No.
	8 : 1/2"	DK : DK-LOK TW : Tube Butt Weld		HC : Ni Alloy C276		

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 Welding Check 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.

Specification

Size	1/4"	1/2"	3/4"	1"
Cv Value	DK : 0.55 / DCR : 0.7	0.7	2.5	2.5
Max. Working Pressure	FKM : 206bar (3000psig) / FFKM : 68bar (1000psig)			
Max. Working Temperature	-10 ~ 80°C			
Nominal Cracking Pressure	≤ 0.14bar (2psig)			
Nominal Reseal Pressure	≤ 0.28bar (4psig)			
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

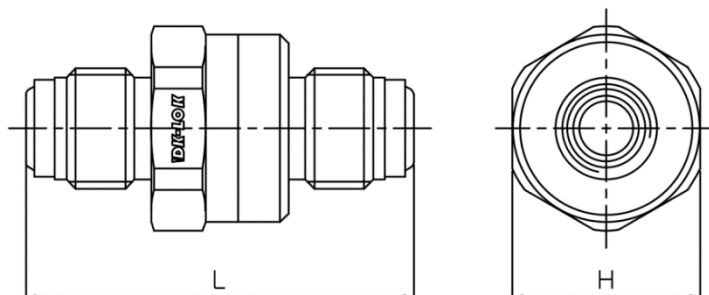
Level	AP	BA	EP
Inner Surface Roughness	Ry ≤ 25 μm	Ry ≤ 3.0 μm / Ra 10μin	Ry ≤ 0.7 μm / Ra 5μin
	Cut off Length : 2.5mm	Cut off Length : 0.8mm	Cut off Length : 0.25mm
	Measuring Length : 12.5mm	Measuring Length : 4mm	Measuring Length : 1.25mm
Polishing	Machining Finish	Machining Finish	Electro Polishing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

Material of Construction

No.	Description	Material
1	Body	Stainless Steel 316L Stainless Steel 316L VAR Ni Alloy C276
2	Poppet	Stainless Steel 316L Ni Alloy C276
3	Plate Spring	Ni Alloy C22
4	O-Ring	FKM / FFKM

* Wetted Components are listed in blue.

Ordering Information and Dimensions



Basic Ordering Number	Size	End Connections	Dimensions (mm)	
			L	H
U-VCW4-DM-	1/4"	DCR Male	45.7	22.1
U-VCW8-DM-	1/2"		52.3	25.4
U-VCW12-DM-	3/4"		67.2	38.1
U-VCW16-DM-	1"		70.2	41.28
U-VCW4-DF-	1/4"	DCR Female	61.7	22.1
U-VCW8-DF-	1/2"		61.7	25.4
U-VCW12-DF-	3/4"		123	38.1
U-VCW16-DF-	1"		131.1	41.28
U-VCW4-DK-	1/4"	DK-Lok	51.3	22.1
U-VCW6-DK-	3/8"		54.4	25.4
U-VCW8-DK-	1/2"		62.1	25.4
U-VCW12-DK-	3/4"		65.7	38.1
U-VCW16-DK-	1"		79.2	41.28

DK type dimensions are shown with DK-LOK nuts finger-tight.

How to order



Valve Type	Size	End Connector Type	Seal Material	Material	Surface Level	User Option
VCW	4 : 1/4"	DM : DCR Male	Blank : FKM	SL : 316L Stainless Steel	B : BA Grade	Blank : Standard
	6 : 3/8"	DF : DCR Female	K : FFKM	DL : 316L Stainless Steel VAR	P : EP Grade	X : Customization No.
	8 : 1/2"	DK : DK-Lok		HC : Ni Alloy C276		
	12 : 3/4"					
	16 : 1"					

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 Check Valves

Standard Type

No.Catalog
JUN.2019



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.

Specification

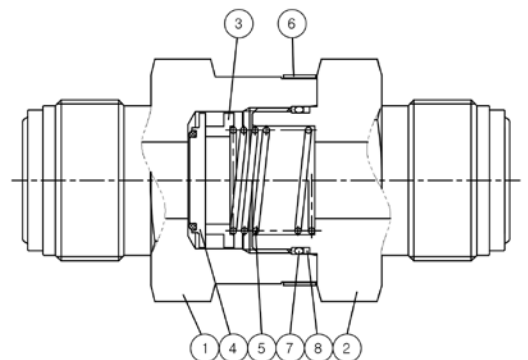
Size	1/4"	1/2"	3/4"	1"	
Cv Value	0.67	1.8	4.7	4.7	
Max. Working Pressure	413 bar (6000 psig)	296, 413 bar (4300, 6000 psig)	254, 344 bar (3700, 5000 psig)	323 bar (4700 psig)	
Max. Working Temperature	-10° ~ 204°C (-23~400°F)				
Nominal Cracking Pressure	0.03 bar (1/3 psig)	0.07 bar (1 psig)	0.35 bar (5 psig)	0.69 bar (10 psig)	1.8 bar (25 psig)
Cracking Pressure Range	Up to 0.21 bar (3 psig)	Up to 0.28 bar (4 psig)	0.21 to 0.63 bar (3 to 9 psig)	0.49 to 1.1 bar (7 to 15 psig)	1.4 to 2.1 bar (20 to 30 psig)
Reseal Pressure(Back Pressure)	Up to 0.42 (6 psig)	Up to 0.35 (5 psig)	Up to 0.14 (2 psig)	Up to 0.21 (3 psig)	Up to 1.2 (17 psig)
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

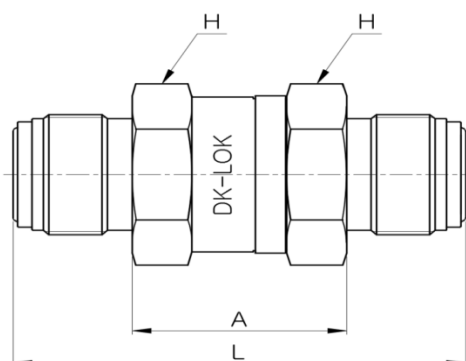
Material of Construction

NO	Description	Materials
1	Body	316L Stainless Steel VAR, 316L Stainless Steel, Hastelloy C-276 Bonded Seal : FKM, EPDM, FFKM
2	Connector	
3	Poppet Stop	
4	Poppet With bonded seal	
5	Spring	SS302, Inconel X750
6	Indicator ring	SS316
7	O-ring	FKM / HNBR
8	Backup ring	PTFE



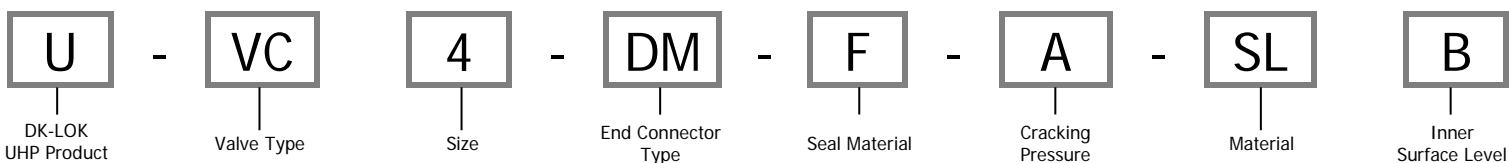
• Wetted Components are listed in blue

Ordering Information



Basic Ordering Number	Size	End Connections	Dimensions (mm)			Pressure Rating bar (psig)
			L	A	H (in)	
U-VC4-DM	1/4"	DCR Male	57.9	26.4	11/16	413 (6000)
U-VC8-DM	1/2"		69.3	31.2	1	296 (4300)
U-VC12-DM	3/4"		96.0	45.5	1-5/8	254 (3700)
U-VC4-DK	1/4"	DK-LOK	61.7	26.4	11/16	413 (6000)
U-VC6-DK	3/8"		69.9	31.2	1	413 (6000)
U-VC8-DK	1/2"		75.2	31.2	1	413 (6000)
U-VC12-DK	3/4"		89.4	45.2	1-5/8	344 (5000)
U-VC16-DK	1"		98.6	45.5	1-5/8	323 (4700)
U-VC4-TW	1/4"	Tube Butt Weld	150	26.4	11/16	413 (6000)
U-VC6-TW	3/8"		150	31.2	1	413 (6000)
U-VC8-TW	1/2"		150	31.2	1	413 (6000)
U-VC12-TW	3/4"		150	45.2	1-5/8	344 (5000)
U-VC16-TW	1"		150	45.5	1-5/8	323 (4700)

How to order



Product	Size	End Connector Type	Seal Material	Cracking Pressure	Material	Surface Level
VC	4 : 1/4"	DM : DCR Male	F : FKM	A : 1/3 psig	SL : 316L Stainless Steel	B : BA Grade
	6 : 3/8"	DK : Dk-Lok	E : EPDM	B : 1 psig	DL : 316L Stainless Steel VAR	P : EP Grade
	8 : 1/2"	TW : Tube Butt Weld	K : FFKM	C : 3 psig	HC : Hastelloy C-276	
	12 : 3/4"			D : 10 psig		
	16 : 1"			E : 25 psig		

Note) DCR : DK-Metal Face Seal

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