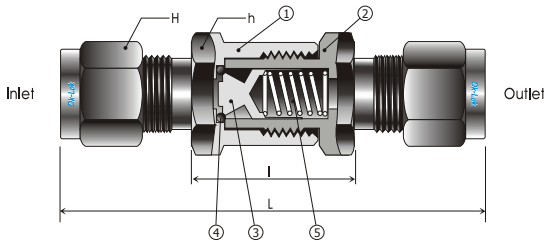


D-Pro V33 Series Check Valves

- Feature: Working pressure up to 3000 psig (206 bar)



Materials of Construction

Component	Valve Body Materials	
	Material Grade/ASTM	
1. Body	S316 /A276, A479	Brass 360 /B16
2. Connector		
3. Poppet		
4. O-ring	Viton*, optional Kalrez*	NBR
5. Spring	S302/A313	S302/A313

* Wetted parts are listed in blue.
 Lubrication: * Silicon-based Lubricant for Poppet
 * Molybdenum Dry Film Lubricant for S316 Body Threads

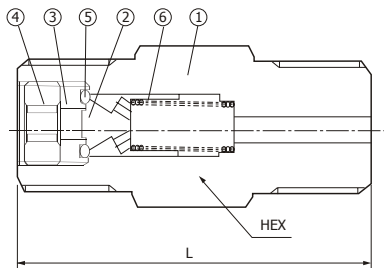
V33 Series Ordering Information and Table of Dimensions

Basic Ordering Number	End Connections		Orifice mm (in.)	Cv	h-Hex	Dimensions mm (inch)		
	Inlet	Outlet				H-Hex	L	I
V33A-	D-2T-	1/8" Dk-Lok	4.8 (0.19)	0.16	15.88 (5/8)	11.11 (7/16)	55.60 (2.19)	25.00 (0.98)
	M-2N-	1/8" Male NPT				-	44.40 (1.75)	-
	F-2N-	1/8" NPT				-	46.50 (1.83)	-
	D-4T-	1/4" Dk-Lok		1/4" Dk-Lok		14.29 (9/16)	60.00 (2.36)	25.00 (0.98)
	D-6M-	6mm Dk-Lok				14.00	-	-
	MD-4N4T-	1/4" Male NPT				14.29 (9/16)	56.40 (2.22)	-
V33B-	M-4N-	1/4" Male NPT	7.1 (0.28)	1.48	19.05 (3/4)	-	53.40 (2.10)	-
	F-4N-	1/4" Female NPT				-	56.80 (2.24)	-
	D-6T-	3/8" Dk-Lok				17.46 (11/16)	65.50 (2.58)	27.10 (1.07)
	D-10M-	10mm Dk-Lok				19.00	-	-
V33C-	M-6N-	3/8" Male NPT	10.0 (0.39)	1.7	22.22 (7/8)	-	63.80 (2.51)	-
	F-6N-	3/8" Female NPT				-	84.70 (3.33)	-
	D-8T-	1/2" Dk-Lok				22.22 (7/8)	80.20 (3.16)	36.20 (1.43)
	D-12M-	12mm Dk-Lok				22.00	-	-
V33D-	M-8N-	1/2" Male NPT	13.5 (0.53)	2.6	28.58 (1-1/8)	-	91.80 (3.61)	48.10 (1.89)
	F-8N-	1/2" Female NPT				-	84.70 (3.33)	-
V33E-	D-10T-	5/8" Dk-Lok	16.0 (0.63)	5.2	31.75 (1-1/4)	25.40 (1)	91.80 (3.61)	48.10 (1.89)
	D-12T-	3/4" Dk-Lok				28.58 (1-1/8)	110.70 (4.35)	67.00 (2.64)
	M-12N-	3/4" Male NPT				-	105.30 (4.15)	-
V33F-	F-12N-	3/4" Female NPT	18.0 (0.71)	8.0	34.93 (1-3/8)	-	103.00 (4.06)	-
	D-16T-	1" Dk-Lok				-	121.10 (4.77)	68.40 (2.69)
	M-16N-	1" Male NPT				-	116.20 (4.57)	-
	F-16N-	1" Female NPT				-	111.40 (4.39)	-

All dimensions shown are for reference only and are subject to change. Dimensions with Dk-Lok are in finger-tight position.

D-Pro VP33 Series Check Valves

- Features:
 - O-ring seal blow-out proof design with precision machined O-ring holder allows extremely safe operation in gas high velocity.
 - One piece body construction.
 - Working pressure up to 3000 psig (206 bar)



Materials of Construction

Component	Valve Body Materials	
	Material Grade/ASTM	
1. Body	S316 /A276, A479	Brass 360 /B16
2. Poppet		
3. O-ring Holder		
4. Locking Screw	Viton*, optional Kalrez*	NBR
5. O-ring		
6. Spring	S302/A313	S302/A313

* Wetted parts are listed in blue.
 Lubrication: * Silicon-based Lubricant for Poppet
 * Molybdenum Dry Film Lubricant for S316 Body Threads

VP33 Series Ordering Information and Table of Dimensions

Basic Ordering Number	End Connections		Cv	Dimensions mm (inch)		
	Inlet	Outlet		L	Hex.	
VP33A-	M-4N-	1/4 Male NPT	0.35	41 (1.62)	14.28 (9/16)	
	M-4R-	1/4 ISO Male Tapered				
	F-4N-	1/4 Female NPT		61 (2.41)	19.05 (3/4)	
	F-4R-	1/4 ISO Female Tapered				
	MF-4N-	1/4 Male NPT1				44 (1.75)
	FM-4N-	1/4 Female NPT1				58 (2.29)
VP33B-	M-8N-	1/2 Male NPT	1.20	58 (2.28)	22.22 (7/8)	
	F-8N-	1/2 Female NPT		94 (3.71)	26.98 (1-1/16)	
	MF-8N-	1/2 Male NPT		72 (2.83)	-	



All dimensions shown are for reference only and are subject to change. Dimensions with Dk-Lok nuts are in finger-tight position.

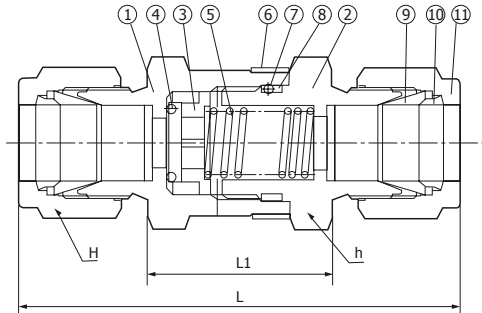
VH36 Series Check Valves

Features

- High pressure 6000 psig (206 bar)
- O-ring seal blow-out proof design with precision machined O-ring groove allows extremely safe operation in high gas velocity.



Models Shown:
VH36B-D-8T-5-S
VH36C-F-12N-KZ-5-S



Materials of Construction

Component	Valve Body Materials	
	Material Grade/ASTM	
1. Body	S316 /A479, A276	
2. Connector		
3. Poppet	Viton*, optional Kalrez*	
4. Bonded seal		
5. Spring	S302 /A313	
6. Indicator ring	S316 /A276	
7. O-ring	Viton	
8. Backup ring	PTFE /D1710	
9. 10. 11. Dk-Lok Front & Back ferrule, Nut	S316 /A479, A276	

Wetted parts are listed in blue.
Lubrication: * Silicon-based Lubricant for Poppet
* Molybdenum Dry Film Lubricant for S316 Body Threads

VH36 Series Ordering Information and Table of Dimensions

Basic Ordering Number	End Connections	Cv	Dimensions mm (inch)				Pressure Rating, psig (bar)
			L	L1	H	h	
VH36A-	D-2T-	1/8" Dk-Lok	57.7 (2.27)	26.4 (1.04)	7/16	11/16	6000 (413)
	D-4T-	1/4" Dk-Lok	61.7 (2.43)	26.4 (1.04)	9/16	11/16	
	D-6M-	6 mm Dk-Lok	61.7 (2.43)	26.4 (1.04)	14	11/16	
	F-4N-	1/4" Female NPT	54.1 (2.13)	-		11/16	
	M-2N-	1/8" Male NPT	45.5 (1.79)	26.4 (1.04)		11/16	
	M-4N-	1/4" Male NPT	55.1 (2.17)	26.4 (1.04)		11/16	
	F-4R-	1/4" ISO Female Tapered	57.9 (2.28)	-		11/16	
	M-4R-	1/4" ISO Male Tapered	55.1 (2.17)	26.4 (1.04)		11/16	
VH36B-	D-6T-	3/8" Dk-Lok	69.9 (2.75)	31.2 (1.23)	11/16	1	6000 (413)
	D-8T-	1/2" Dk-Lok	75.2 (2.96)	31.2 (1.23)	7/8	1	
	D-8M-	8 mm Dk-Lok	68.6 (2.70)	31.2 (1.23)	16	1	
	D-10M-	10 mm Dk-Lok	71.1 (2.80)	31.2 (1.23)	19	1	
	D-12M-	12 mm Dk-Lok	75.2 (2.96)	31.2 (1.23)	22	1	5000 (344)
	F-6N-	3/8" Female NPT	64.8 (2.55)	-		1	
	F-8N-	1/2" Female NPT	77.0 (3.03)			1-1/16	
	M-6N-	3/8" Male NPT	59.9 (2.36)	31.2 (1.23)		1	
	M-8N-	1/2" Male NPT	69.3 (2.73)	31.2 (1.23)		1	
	F-8R-	1/2" ISO Female Tapered	83.6 (3.29)	-		1-1/16	
M-8R-	1/2" ISO Male Tapered	69.3 (2.73)	1.23 (31.2)		1		
VH36C-	D-12T-	3/4" Dk-Lok	89.4 (3.52)	45.2 (1.78)	1-1/8	1-5/8	5000 (344)
	D-16T-	1" Dk-Lok	98.6 (3.88)	45.5 (1.79)	1-1/2	1-5/8	4700 (323)
	D-22M-	22 mm Dk-Lok	88.4 (3.48)	45.5 (1.79)	32	1-5/8	5000 (344)
	D-25M-	25 mm Dk-Lok	98.6 (3.88)	45.5 (1.79)	40	1-5/8	5000 (344)
	F-12N-	3/4" Female NPT	82.0 (3.23)	82.0 (3.23)		1-5/8	4300 (296)
	F-16N-	1" Female NPT	97.3 (3.83)	97.3 (3.83)		1-5/8	4100 (282)
	M-12N-	3/4" Male NPT	83.6 (3.29)	45.5 (1.79)		1-5/8	5000 (344)
	M-16N-	1" Male NPT	93.2 (3.67)	45.7 (1.80)		1-5/8	5000 (344)
	F-12R-	3/4" ISO Female Tapered	90.2 (3.55)	90.2 (3.55)		1-5/8	4300 (296)
	F-16R-	1" ISO Female Tapered	97.3 (3.83)	97.3 (3.83)		1-5/8	4100 (282)
	M-12R-	3/4" ISO Male Tapered	85.1 (3.35)	45.5 (1.79)		1-5/8	5000 (344)
	M-16R-	1" ISO Male Tapered	93.2 (3.67)	45.7 (1.80)		1-5/8	5000 (344)

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D-Pro[®] Check Valves

Optional Features

■ Seal Materials

O-ring Seal Material	Designator	Temperature Rating	
NBR	BN	-20 to 105C (-4 to 221F)	<ul style="list-style-type: none"> Viton is standard for S316 valves and NBR is standard for Brass valves PTFE requires high back pressure for leak-tight seal. * Viton and Kalrez: TM Dupont
Viton*	VT	-28 to 204C (-18 to 399F)	
PTFE	PE	-45 to 176C (-49 to 349F)	
EPDM	EP	-45 to 135C (-49 to 275F)	
Kalrez*	KZ	-20 to 315C (-22 to 599F)	

Recommendation of seal material application.

NBR	Petroleum-based hydraulic and lubricating oils, animals and vegetable oils, acetylene, alcohols, water, air, alkalis, feul oils and many other media.
Viton	High-quality compounds for high temperatures. Synthetic and hydraulic fluids; a wide range of chemicals, heavily oxidizing acids, suitable for vacuum.
EPDM	Chemical resistance: nonflammable hydraulic fluids (Skydrol, Pydraul, Lindol, Cellulube 150, phosphoric esters), pure aniline, fire extinguisher liquids (chlorobromo-methane), acids; excellent resistance to hot water and steam.
Kalrez	Superior compounds for high temperature and most chemicals. This compound combines the chemical properties of PTFE (Teflon) with the mechanical properties of Viton.

Spring and seal kits

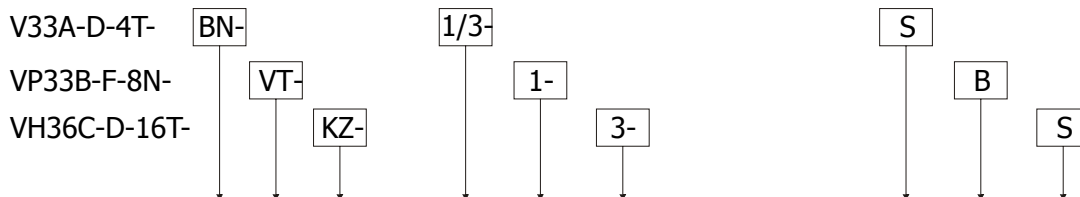
Spring Kit To order spring kit, prefix "CVS" and select check valve series as well as spring nominal cracking pressures. Examples; CVS-V33A-1/3: 1/3 psi spring for V33A series CVS-VP33B-1: 1 psi spring for VP33B series CVS-CH36A-3: 3 psi spring for CH36A series	Seal Kit To order seal kit, prefix "CVO" and select valve series as well as seal designator. Examples; CVO-V33A-BN: NBR O-ring for V33A series CVO-VP33B-VT: Viton O-ring for VP33B series CH36 series seal kit is not available since CH36 series seal is bonded on poppet groove.
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Exotic alloy valves for Sour Gas Service.

Cracking of low or high strength materials in the presence of hydrogen sulfide and water in combination with a tensile stress is called sulfide stress cracking (SCC). For use valves in sour gas, exotic alloy materials are selected to NACE MR0175. Please consult your local Dk-Lok distributor for further details.

How to Order

Select valve, applicable seal, Spring nominal cracking pressure, and body material.



O-ring Seal Material Designator Bonded Seal Designator for VH36 Series	Spring Nominal Cracking Pressure Designator	Valve Material Designator
<ul style="list-style-type: none"> NBR: Nil for Brass Valve NBR: BN Viton: Nil for S316 Valve Viton: VT PTFE: PE EPDM: EP Kalrez: KZ 	<ul style="list-style-type: none"> 1/3: 1/3 psi 1: 1 psi 3: 3 psi 10: 10 psi 25: 25 psi 	<ul style="list-style-type: none"> S: 316 stainless steel B: Brass

Note: NBR O-ring is standard for Brass valves and Viton O-ring is standard for 316 stainless steel valve.

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 Tech accepts no liability for any improper selection, installation, operation or maintenance.

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