



V23 Series Plug Valves

Pressure Rating up to 3000 psig

Catalog No. V23-1
July 2004

Features of V23 Series

- Quarter-turn operation
- Low torque operation
- Unique forward flow throttling
- Unidirectional flow



Materials of Construction

Component	Valve Body Materials	
	Stainless Steel	Brass
	Grade/ASTM Specification	
1. Body	S316/A479 or A276	Brass / B16
2. Plug	PTFE-coated S316/ A479 or A276	PTFE-coated Brass / B16
3. O-ring	PTFE-coated fluorocarbon Viton*	
4. Handle	Nylon	
5. Pin	S316/A276	
6. Snap ring	Stainless Steel	

Note: 1. Wetted parts and lubricants listed in blue * Viton is TM of DUPONT
2. Lubricant is silicone-based

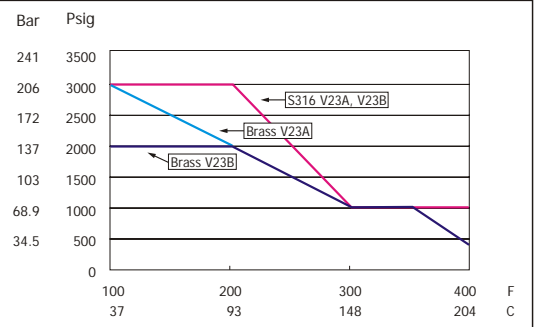
Technical Data

Series	Valve Material	Pressure Rating		Temperature Rating	Plug Orifice mm (in.)
		psig	bar		
V23A	S316	3000	206	-23C to 204C (-10F to 400F)	4.4 (.17)
	Brass				
V23B	S316	2000	137		7.2 (.28)
	Brass				

- Reverse flow direction pressure is limited to 150 psig (10.3bar) maximum.
- Reverse-flow throttling may damage O-ring.

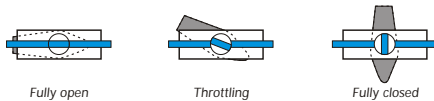
Temperature Vs. Pressure Ratings

Based on PTFE-coated Viton O-rings



Operation

- D-pro plug valves provide positive shut-off, high flow capacity, and quick quarter-turn operation.
- D-pro plug valve provides throttling capability.

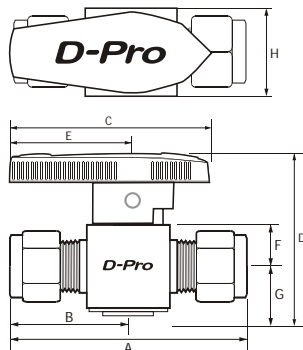


Optional O-ring material

PTFE-coated Viton is standard. Choose optional O-ring material for fluid compatibility and performance over your system temperatures.

O-ring material	O-ring Designator	Temperature Rating
Standard PTFE-coated Viton	EV	-28C to 204C (-20F to 400F)
PTFE-coated Buna-N	EB	-20C to 105C (-68F to 221F)
PTFE-coated EPDM	EE	-45C to 135C (-49F to 275F)

Ordering Information and Table of Dimensions



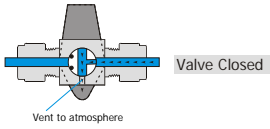
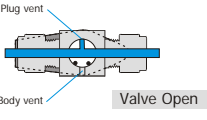
Basic Ordering Number	End Connections		Dimensions mm (inches)							
	Inlet	Outlet	A	B	C	D	E	F	G	H
V23A-	D-2T-	1/8" Dk-Lok	50.5 (1.99)	19.8 (0.78)	47.8 (1.88)	38.6 (1.52)	29.0 (1.14)	9.4 (0.37)	11.7 (0.46)	19.1 (0.75)
	D-4T-	1/4" Dk-Lok	55.1 (2.17)							
	D-6T-	3/8" Dk-Lok	58.2 (2.29)							
	D-6M-	6mm Dk-Lok	55.1 (2.17)							
	M-2N-	1/8" Male NPT	38.9 (1.53)							
	M-4N-	1/4" Male NPT	48.3 (1.90)							
	MD-4N4T-	1/4" Male NPT to 1/4" Dk-Lok	51.2 (2.03)							
	MF-4N-	1/4" Male NPT to 1/4" female NPT	50.8 (2.00)							
	F-2N-	1/8" Female NPT	45.2 (1.78)							
	F-4N-	1/4" Female NPT	53.1 (2.09)							
F-4R-	1/4" Female ISO tapered	56.1 (2.21)	29.0 (1.14)	63.2 (2.49)	54.1 (2.13)	38.1 (1.50)	14.2 (0.56)	16.8 (0.66)	28.4 (1.12)	
V23B-	D-6T-	3/8" Dk-Lok								67.6 (2.66)
	D-8T-	1/2" Dk-Lok								73.2 (2.88)
	D-8M-	8mm Dk-Lok								67.6 (2.66)
	D-10M-	10mm Dk-Lok								68.1 (2.68)
	D-12M-	12mm Dk-Lok								75.2 (2.96)
	M-8N-	1/2" Male NPT								67.1 (2.64)
	F-6N-	3/8" Female NPT								60.5 (2.38)
	F-8N-	1/2" Female NPT	73.2 (2.88)							
F-8R-	1/2" ISO Female Tapered	79.8 (3.14)								

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

Factory Test

- Every V23 series plug valve is factory tested for shutoff at 600psig (41.3 bar) .

<p>Quality System Approval</p>	<p>Dk-Lok Tube Fitting Certification Listing</p>	<p>D-Pro Valve Certification Listing</p>	<p>D-Pro Valves</p> <p>V23 Series www.dklok.com www.dklokusa.com</p>
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Optional Downstream Vent	Optional Colored Handles								
<p style="text-align: center;">Vent to atmosphere when valve is closed Body vent when valve is open</p> <div style="display: flex; justify-content: space-around;">   </div> <p>Optional vented plug and valve body provides system pressure release to atmosphere when valve is closed.</p> <ul style="list-style-type: none"> This option reduces the maximum operation pressure to 150 psig (10.3 bar). Red Nylon handle identifies the option. 	<p>To help clients color code a system, optional colored nylon handles are available with the following designator.</p> <p>When order for field assembly, add the color designator to the handle kit ordering number. Handle kit is supplied with the handle and a set pin.</p> <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th>Valve Series</th> <th>Handle Kit Basic Ordering Number</th> <th>Color Designator</th> </tr> </thead> <tbody> <tr> <td>V23A</td> <td>23A-NY-HD-</td> <td rowspan="2">Nil: Green BK: Black RD: Red</td> </tr> <tr> <td>V23B</td> <td>23B-NY-HD-</td> </tr> </tbody> </table> <ul style="list-style-type: none"> • Example: V23A-NY-HD-BK for black color V23A handle. 	Valve Series	Handle Kit Basic Ordering Number	Color Designator	V23A	23A-NY-HD-	Nil: Green BK: Black RD: Red	V23B	23B-NY-HD-
Valve Series	Handle Kit Basic Ordering Number	Color Designator							
V23A	23A-NY-HD-	Nil: Green BK: Black RD: Red							
V23B	23B-NY-HD-								

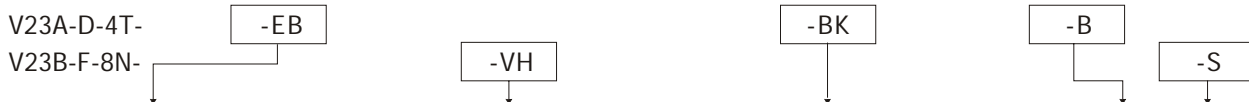
Flow Data

Basic Ordering Number	End Connections		Cv	Pressure Drop to Atmosphere, psi (bar)					
	Inlet	Outlet		Air Flow, std ft ³ /min (L/min)			Water Flow, US gal/min(L/min)		
				@21C (70F)					
				1 (0.068)	5 (0.34)	10 (0.68)	1 (0.068)	5 (0.34)	10 (0.068)
V23A-	D-2T-	1/8" Dk-Lok	0.1	0.3 (8.4)	0.8 (22)	1.1 (31)	0.1 (0.37)	0.2 (0.75)	0.3 (1.1)
	D-4T-	1/4" Dk-Lok	1.6	6.0 (169)	13 (368)	18 (509)	1.6 (6.0)	3.6 (13.6)	5.1 (19.3)
	D-6T-	3/8" Dk-Lok	1.1	4.1 (116)	8.9 (252)	12.4 (351)	1.1 (4.1)	2.5 (9.4)	3.5 (13.2)
	D-6M-	6mm Dk-Lok	1.6	6.0 (169)	13 (368)	18 (509)	1.6 (6.0)	3.6 (13.6)	5.1 (19.3)
	M-2N-	1/8" Male NPT	1.0	3.7 (104)	8.1 (229)	11.3 (320)	1.0 (3.7)	2.2 (8.3)	3.2 (12.1)
	M-4N-	1/4" Male NPT							
	MD-4N4T-	1/4" Male NPT to 1/4" Dk-Lok	0.9	3.3 (93)	7.3 (206)	10.1 (286)	0.9 (3.4)	2.0 (7.5)	2.8 (10.8)
	MF-4N-	1/4" Male NPT to 1/4" female NPT	1.0	3.7 (104)	8.1 (229)	11.3 (320)	1.0 (3.7)	2.2 (8.3)	3.2 (12.1)
	F-2N-	1/8" Female NPT	1.2	4.4 (124)	9.7 (274)	13.5 (382)	1.2 (4.5)	2.7 (10.2)	3.8 (14.3)
F-4N-	1/4" Female NPT	0.9	3.3 (93)	7.3 (206)	10.1 (286)	0.9 (3.4)	2.0 (7.5)	2.8 (10.8)	
F-4R-	1/4" Female ISO tapered								
V23B-	D-6T-	3/8" Dk-Lok	6.4	23.9 (676)	52.0 (1470)	72.3 (2040)	6.4 (24.2)	14.3 (54.1)	20.2 (76.4)
	D-8T-	1/2" Dk-Lok	4.4	16.4 (464)	35.7 (1010)	49.7 (1400)	4.4 (16.6)	9.8 (37.0)	13.9 (52.6)
	D-8M-	8mm Dk-Lok	6.4	23.9 (676)	52.0 (1470)	72.3 (2040)	6.4 (24.2)	14.3 (54.1)	20.2 (76.4)
	D-10M-	10mm Dk-Lok							
	D-12M-	12mm Dk-Lok	4.8	17.9 (506)	39.0 (1100)	54.2 (1530)	4.8 (18.1)	10.7 (40.4)	15.2 (57.5)
	M-8N-	1/2" Male NPT	2.4	9.0 (254)	19.5 (552)	27.1 (767)	2.4 (9.0)	5.4 (20.4)	7.6 (28.7)
	F-6N-	3/8" Female NPT	4.3	16.0 (453)	34.9 (988)	48.6 (1370)	4.3 (16.2)	9.6 (36.3)	13.6 (51.4)
	F-8N-	1/2" Female NPT	2.7	10.1 (286)	21.9 (620)	30.5 (863)	2.7 (10.2)	6.0 (22.7)	8.5 (32.1)
	F-8R-	1/2" ISO Female Tapered							

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How to Order

Select the desired valve basic ordering number, options and body material.



O-ring Material Designator	Vent Hole	Handle Designator	Body Material Designator
<ul style="list-style-type: none"> · Nil : PTFE-coated Viton · EB : PTFE-coated Buna-N · EE : PTFE-coated EPDM 	<ul style="list-style-type: none"> · Nil : no vent hole · VH : Vent Hole 	<ul style="list-style-type: none"> · Nil: Green (Standard) · BK : Black · RD : Red · BH : Bar handle 	<ul style="list-style-type: none"> · S : 316 Stainless Steel · B : Brass

We reserve the right to change specifications stated in this catalog for our continuing program of improvement.

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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