

V103 Series Toggle Valves

No.V103-4

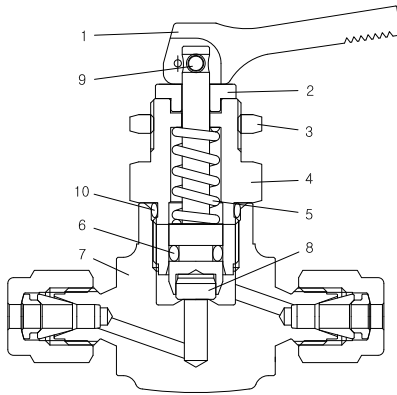
Pressure Rating up to 300 psig (20.6 bar)

Design & Features



- Valves are designed for use in gas sampling, analysis systems and test equipment.
- In-line and angle flow pattern.
- O-ring seal below stem spring protects the spring from contamination.
- Quick open and close.
- Soft seat for repetitive shut-off
- Standard panel mounting.

Materials of Construction



Component	Valve Body Material	
	SS316	Brass
Grade/ASTM Specification		
1. Handle	Nylon	
2. Washer	Nylon	
3. Panel Nut	Brass B16	
4. Packing nut	SS316/A276	Brass B16
5. Spring	Stainless Steel 302	
6. Stem O-ring	FKM	NBR
7. Body	SS316/A182	Brass B283
8. Stem tip	PTFE/D1710	
9. Handle Pin	Stainless Steel	
10. Body O-Ring	FKM	NBR

Wetted component listed in blue and silicon based lubricant.

Operation

- To open the valve, lift the handle.
- Spring forces the valve to close.
- Soft seat provides leak-tight sealing under positive pressure and vacuum conditions.
- Stem O-ring seal eliminates packing adjustment.

Technical Data

Pressure and Temperature Ratings

Valve Series	Orifice		Pressure Rating @ 100 °F (38 °C) for SS316, Brass body	Temperature Rating
	inch	mm		
V103A	0.080	2.00	300 psig	FKM O-ring -20 to 200 °F (-28 to 93 °C)
V103B	0.125	3.20		
V103C	0.250	6.40	200 psig	

Optional O-Ring Material

FKM O-rings are standard and other materials are Buna C, EPDM and Kalrez.

Low Temperature Service

O-ring	Temperature Range, °F(°C)
Buna C	-65 to 200 (-53 to 93)

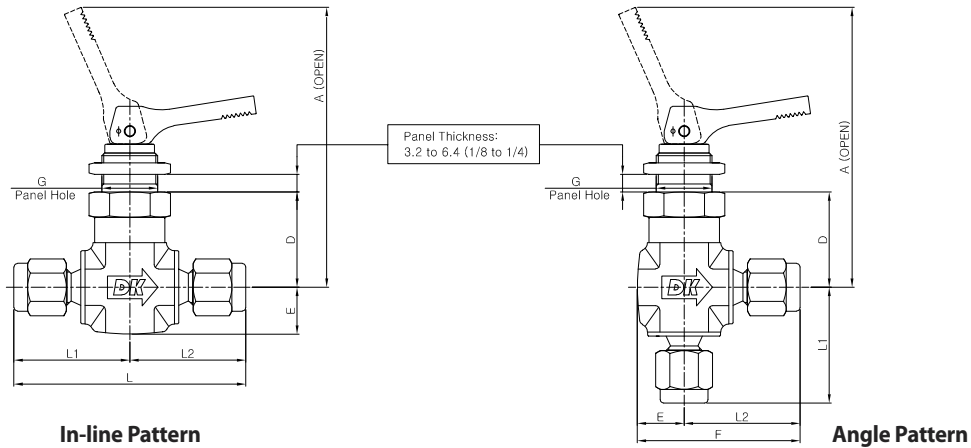
Factory test

Every valve is factory tested at 200psig (13 bar) with nitrogen gas at the seat and seal.



IDK-LOK® Toggle Valves

V103 Series



Ordering Information and Dimensions

Basic Ordering Number	End Connection		Orifice		Cv	Dimensions mm (in.)							
	Inlet	Outlet	in.	mm		L	L1	L2	D	E	F	G	A
V103A-	M-2N-	1/8 in. Male NPT	0.08	2	0.11	38.1 (1.5)	19.05 (0.75)	19.05 (0.75)	23.4 (0.92)	10.6 (0.42)	27.0 (1.06)	13.5 (0.53)	72.9 (2.87)
	D-2T-	1/8 in. DK-Lok				49.8 (1.96)	24.9 (0.98)	24.9 (0.98)			32.8 (1.29)		
	D-3M-	3 mm DK-Lok				43.9 (1.73)	19.05 (0.75)	24.9 (0.98)			37.6 (1.48)		
	MD-2N2T-	1/8 in. Male NPT 1/8 in. DK-Lok				41.4 (1.63)	20.6 (0.81)	20.6 (0.81)			30.2 (1.19)		
V103B	F-2N-	1/8 in. Female NPT	0.125	3.2	0.2	43.7 (1.72)	21.8 (0.86)	21.8 (0.86)	21.8 (0.86)	9.5 (0.38)	31.2 (1.23)	13.5 (0.53)	71.4 (2.81)
	M-2N-	1/8 in. Male NPT				49.8 (1.96)	24.9 (0.98)	24.9 (0.98)			34.5 (1.36)		
	M-4N-	1/4 in. Male NPT				57.4 (2.26)	28.7 (1.13)	28.7 (1.13)			38.1 (1.5)		
	D-4T-	1/4 in. DK-Lok				57.4 (2.26)	28.7 (1.13)	28.7 (1.13)			38.1 (1.5)		
	D-6M-	6 mm DK-Lok				56.4 (2.22)	28.2 (1.11)	28.2 (1.11)			37.6 (1.48)		
	D-8M-	8 mm DK-Lok				41.4 (1.63)	20.6 (0.81)	20.6 (0.81)			30.2 (1.19)		
	MF-2N-	1/8 in. Male NPT 1/8 in. Female NPT				53.6 (2.11)	24.9 (0.98)	28.7 (1.13)			38.1 (1.5)		
	MD-4N4T-	1/4 in. Male NPT 1/4 in. DK-Lok				53.8 (2.12)	26.9 (1.06)	26.9 (1.06)			39.6 (1.56)		
V103C-	F-4N-	1/4 in. Female NPT	0.25	6.4	0.7	57.2 (2.25)	28.4 (1.12)	28.4 (1.12)	26.9 (1.06)	12.7 (0.5)	41.1 (1.62)	16.8 (0.66)	90.4 (3.56)
	M-6N-	3/8 in. Male NPT				65.5 (2.58)	32.8 (1.29)	32.8 (1.29)			45.5 (1.79)		
	D-6T-	3/8 in. DK-Lok				71.1 (2.8)	35.6 (1.4)	35.6 (1.4)			48.3 (1.9)		
	D-8T-	1/2 in. DK-Lok				69.1 (2.72)	34.5 (1.36)	34.5 (1.36)			47.2 (1.86)		
	D-10M-	10 mm DK-Lok				74.2 (2.92)	37.1 (1.46)	37.1 (1.46)			49.8 (1.96)		
	D-12M-	12 mm DK-Lok											

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

How to Order

Select basic ordering number, applicable valve pattern, O-ring and body material designators listed below.

V103B-D-4T	-A	-BC	-S
	↓	↓	↓
	Valve Pattern	O-ring Designator	Body Material
	<ul style="list-style-type: none"> • Nil: Inline pattern • A : Angle pattern 	<ul style="list-style-type: none"> • Nil : FKM • KZ : Kalrez • BC : Buna-C • EP : EPDM 	<ul style="list-style-type: none"> • S : SS316 • B : Brass

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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