



V103 Series Toggle Valves

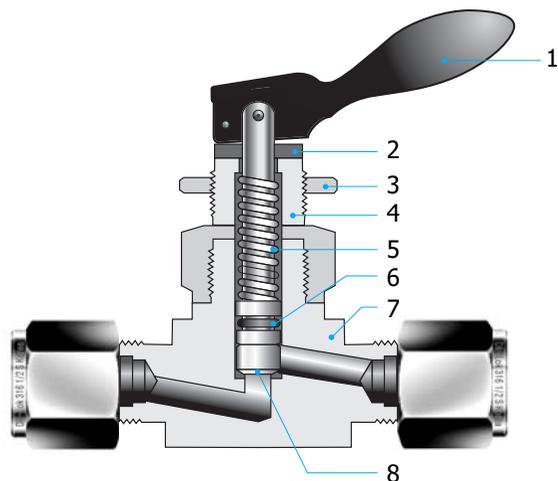
Pressure Rating up to 300 psig (20.6 bar)

Catalog No. V103-3
May 2008

Toggle Valves for Quick Shut-Off

Features

- Quick open and close
- Soft seat for repetitive shut-off
- Study Aluminum handle
- Standard panel mounting



Materials of Construction

Component	Valve Body Material	
	SS316	Brass
	Grade/ASTM Specification	
1. Handle	Aluminium black anodized	
2. Washer	Nylon	
3. Panel Nut	SS316/A276	Brass 360/B16
4. Packing nut		
5. Spring	Stainless/A313	
6. Stem	SS316/A276	
O-ring	FKM	
7. Body	SS316/A182	C377/B283
8. Stem tip	PTFE/D1710	
Lubricant	Silicon based	

Wetted component listed in blue.

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.
- O-ring stem seal eliminates packing adjustment.

Design

- 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.

Technical Data

Pressure and Temperature Ratings

Valve Series	Orifice		Pressure Rating @ 100 °F (37 °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	

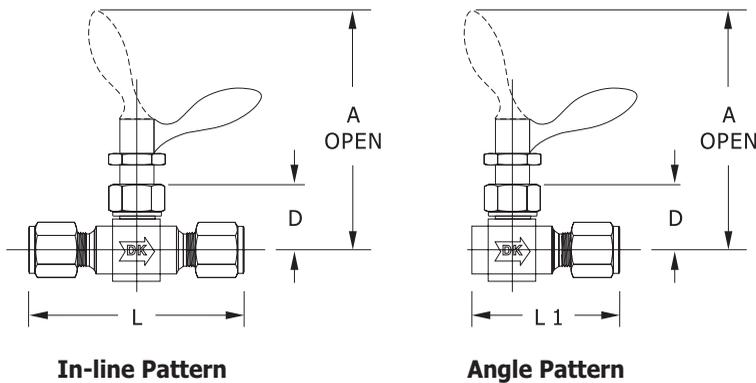
Optional O-ring

O-ring	Temperature range		Application	Designator
	°F	°C		
Buna-C	-65 to 200	-53 to 93	Low temperature service	BC
Kalrez	-30 to 600	-30 to 316	High temperature service	KZ

Factory test

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





Ordering Information and Dimensions

Basic Ordering Number	End Connection		Orifice		Cv	Dimensions in.(mm)			
	Inlet	Outlet	in.	mm		L	L1	D	A
V103A-	M-2N	1/8 in. Male NPT	0.080	2.0	0.11	1.5 (38.1)	1.06 (27.0)	.92 (23.4)	2.87 (72.9)
	D-2T	1/8 in. Dk-Lok				1.96 (49.8)	1.29 (32.8)		
	D-3M	3mm Dk-Lok							
	MD-2N2T	1/8 in. Male NPT 1/8 in. Dk-Lok				1.73 (43.9)			
V103B-	F-2N	1/8 in. Female NPT	0.125	3.2	0.20	1.63 (41.4)	1.19 (30.2)	.86 (21.8)	2.81 (71.4)
	M-2N	1/8 in. Male NPT				1.72 (43.7)	1.23 (31.2)		
	M-4N	1/4 in. Male NPT				1.96 (49.8)	1.36 (34.5)		
	D-4T	1/4 in. Dk-Lok				2.26 (57.4)	1.50 (38.1)		
	D-6M	6mm Dk-Lok							
	D-8M	8mm Dk-Lok				2.22 (56.4)	1.48 (37.6)		
	MF-2N	1/8 in. Male NPT 1/8 in. Female NPT				1.63 (41.4)	1.19 (30.2)		
	MD-4N4T	1/4 in. Male NPT 1/4 in. Dk-Lok				2.11 (53.6)	1.50 (38.1)		
V103C-	F-4N	1/4 in. Female NPT	0.250	6.4	0.70	2.12 (53.8)	1.56 (39.6)	1.06 (26.9)	3.56 (90.4)
	M-6N	3/8 in. Male NPT				2.25 (57.2)	1.62 (41.1)		
	D-6T	3/8 in. Dk-Lok				2.58 (65.5)	1.79 (45.5)		
	D-8T	1/2 in. Dk-Lok				2.80 (71.1)	1.90 (48.3)		
	D-10M	10mm Dk-Lok				2.72 (69.1)	1.86 (47.2)		
	D-12M	12mm Dk-Lok				2.92 (74.2)	1.96 (49.8)		

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 	<ul style="list-style-type: none"> S : S316 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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