

# Type 710 Diaphragm Valves



## pneumatically actuated

SERIES: Type 710

SIZES: 3/8", 1/2"

ENDS: True Union Socket, Threaded or ChemFlare™<sup>1</sup> Spigot<sup>2</sup> bodies with Plain, Socket, Threaded or Flanged ends

DIAPHRAGMS: EPDM<sup>3</sup>, FKM-B (Viton®) or PTFE

CONTROL FUNCTIONS: Normally Closed  
Normally Open  
Double Acting



True Union Body

The Chemline Type 710 Pneumatically Actuated Diaphragm Valve features a plastic piston actuator designed for long cycling life and corrosion resistance. Compared to a 1/2" pneumatically actuated ball valve it is a fraction of the size and cost.

Type 710 is part of the 700 Series of diaphragm valves featuring modular construction which minimizes spare parts requirements. Being a diaphragm valve, it is suitable for sanitary or slurry applications. With a PTFE diaphragm, it has corrosion resistance superior to a ball valve.

## Features

### Pressure rated to 90 psi

- 90 psi at 20°C for all materials

### Long Cycling Life

- Valves normally operate well over one million cycles maintenance free<sup>4</sup>

### Solid Plastic Body & Actuator

- High strength "Ixef"<sup>5</sup> plastic actuator
- Lightweight
- Corrosion Resistant

### Epoxy Coated Spring Steel Springs

- Spring steel springs have longer life and are stronger than stainless steel springs. Epoxy coating resists corrosive environments.

### Safety Spring Cartridge

- Contained spring set allows for safe removal of actuator
- Spring cartridge may be easily reversed to change between Normally Closed and Normally Open functions

### Direct Mount Accessories

- Accessories (travel stop, position indicator, manual override, limit switch box) thread into the top of the actuator and are easily installed in the field

<sup>1</sup> For ChemFlare™ end connectors, consult Chemline.

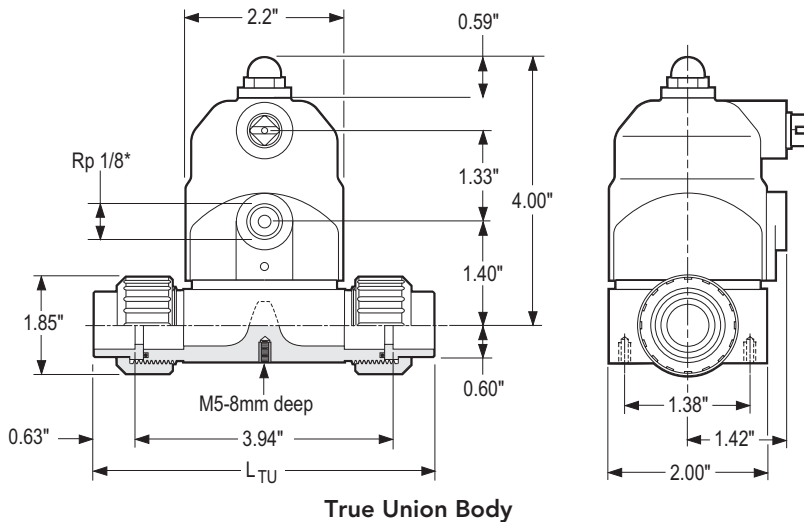
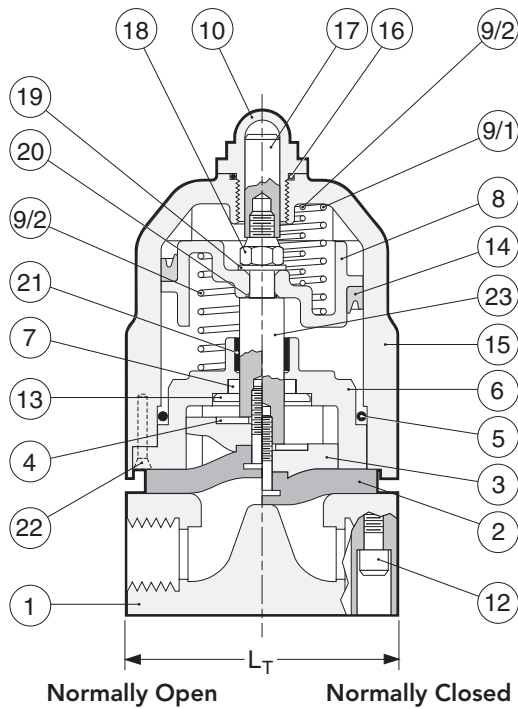
<sup>2</sup> PP and PVDF spigot ends have metric dimensions and will butt fuse directly to Chemline PP and PVDF piping systems. PVC spigots are ANSI.

<sup>3</sup> Epoxy cured EPDM

<sup>4</sup> With EPDM or FKM-B (Viton®) diaphragm.

<sup>5</sup> "Ixef" = Polyaramide

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\* Air connections for all control functions are Rp 1/8 (BSP 1/8") as standard.  
Rp 1/4 is available as an option. **Air consumption** for all sizes is 1.65 cubic inches.

## ORDERING EXAMPLE

Chemline Diaphragm Valves		710	NC	005	A	E	U
Control Function	NC – Normally Closed NO – Normally Open DA – Double Acting						
Size	003 – 3/8"    005 – 1/2"						
Body Material	A – PVC    B – PP    C – CPVC    K – PVDF						
Diaphragm	E – EPDM    B – Nitrile V – FKM-B (Viton®)    P – PTFE						
Ends	Blank – Spigot (Butt)    T – Threaded    U – Union Socket CFx – ChemFlare™						

**Example:** Chemline Type 710 Pneumatically Actuated Diaphragm Valve.  
Normally Closed, 1/2" diameter, PVC body, EPDM diaphragm, socket union ends.  
x = 4 for 1/4", 6 for 3/8", 8 for 1/2" ID tube connections.

## PARTS

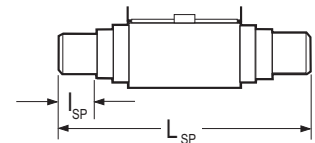
No.	Part	Pcs.	Materials
1	Body	1	PVC, CPVC, PP, PVDF
2	Diaphragm	1	EPDM, FKM-B (Viton®), PTFE
3	Compressor	1	PBTP <sup>1</sup>
4	Thrust Ring	1	Cad. Plated Steel
5	O-Ring	1	Nitrile
6	Guide	1	Ixef <sup>2</sup>
7	Quad Ring	1	Nitrile
8	Piston	1	Ixef <sup>2</sup>
9x	Spring	1	Epoxy Coated Spring Steel
10	Indicator Cover	1	Polycarbonate
12	Socket Head Bolt	4	304 SS
13	Circle Clip	1	Brass
14	Lip Ring	1	Nitrile
15	Actuator Housing	1	Ixef <sup>2</sup>
16	O-Ring	1	Nitrile
17	Position Indicator	1	Polypropylene
18	Lock Nut	1	Cad. Plated Steel
19	Washer	1	Cad. Plated Steel
20	O-Ring	1	Nitrile
21	Shaft Bearing	1	Carbon/PTFE <sup>3</sup>
22	Bolt Inserts	2	Steel
23	Stem	1	304 SS

<sup>1</sup>PBTP = Polybutylene Terephthalate  
<sup>2</sup>Ixef = Polyaramide <sup>3</sup>25% carbon filled PTFE

## DIMENSIONS INCHES Cv VALUES

Size	Union Soc L <sub>TU</sub>	Spig L <sub>SP</sub>	Thd L <sub>T</sub>	USGPM at 1 psi ΔP
3/8"	5.12	4.88	2.91	3.3
1/2"	5.12	4.88	2.91	4.1

## Spigot Body



## MINIMUM CONTROL PRESSURES<sup>4</sup> PSI

Line Pressure	Min. Required Control Pressure	
	Normally Closed	Normally Open
0	62	32
15	60	35
30	57	38
45	56	41
60	53	44
75	51	47
90	48	50

<sup>4</sup>Air or clean water are acceptable control media.

## ACCESSORIES

- Travel Stop
- Travel Stop/Position Indicator
- Travel Stop/Position Indicator/Manual Override
- Solenoid Valve
- Limit Switches