

2/2-Way; 5/16"-2"



Advantages / Benefits

- ▶ Hermetic isolation of fluid from the atmosphere
- ▶ Higher flow than conventional diaphragm valves
- ▶ Zero dead volume
- ▶ Corrosion resistant
- ▶ Long service life even with "dirty" or high viscosity fluids
- ▶ Self-draining when installed appropriately

Design

This diaphragm valve with stainless steel body is an alternative to ball valves for polluted, dirty, abrasive or high viscosity fluids. High flow rates are attained with the 2-way unique stainless steel body.

The diaphragm between the actuator and body hermetically isolates the fluid from the actuator.

The maintenance-free and robust valves can be retro-fitted with a comprehensive range of accessories for position indication, stroke limitation or hand wheel operation.

Applications

- Pollution control equipment
- Chemical processing equipment
- Cosmetic processing equipment
- Food processing equipment
- Bottling systems
- Water treatment
- Textile dyeing
- Paint Spraying equipment

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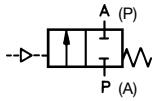
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Easy Fluid Control Solutions

General Purpose

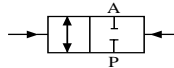
Technical Data

Control Functions

A – 2/2-way valve,
normally closed by spring action.



I – 2/2-way valve, with double-
acting actuator.



Specifications

Port Connection [inch]	Orifice [inch]	Cv-Rating	Operating Pressure		Actuator Size [ø inch]	Weight [lbs.]
			Diaphragm			
			EPDM [PSI]	PTFE [PSI]		
1/4	5/16	2.06	140	130	1.58	.9
1/2	9/16	6.29	100	-	1.97	1.5
1/2	9/16		140	123	2.48	2.1
3/4	3/4	16.19	108	-	2.48	2.9
3/4	3/4		140	140	3.15	4.4
1	1	26.33	70	-	2.48	2.9
1	1		140	100	3.15	4.8
1 1/4	1 1/4	39.03	140	115	3.94	8.6
1 1/2	1 1/2	50.44	100	-	3.94	9.2
1 1/2	1 1/2		140	140	4.93	16.5
2	2	86.56	123	100	4.93	16.7

Operating Data (Valve)

Fluid temperature
depending on
diaphragm material

EPDM: +14°F to +280°F
PTFE: +14°F to +248°F

Valve body
Body surfaces: 316 L Stainless steel
Internally Ra 40 to Ra 88

Diaphragm material EPDM, PTFE

On request

- Flanged connection
- Tri-Clamp
- Digital electro-pneumatic positioner

Operating Data (Actuator)

Material PA (Polyamide)
PPS (Polyphenylsiloxan)

Ambient temperature PA +14°F to +140°F
PPS¹⁾ +40°F to +190°F
¹⁾Temp. to 280° max. for short intervals only

Control Pressure

Max. admissible control pressure 140 PSI (PA)
100 PSI (PPS)

Circuit function A (spring to close):

Min. required control pressure 78 PSI

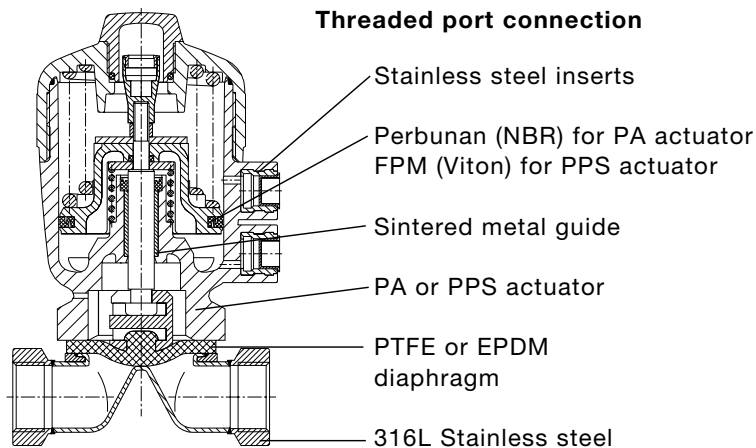
Circuit function I (no spring):

The following min. control pressures are required to provide max. operating pressure: 85 PSI

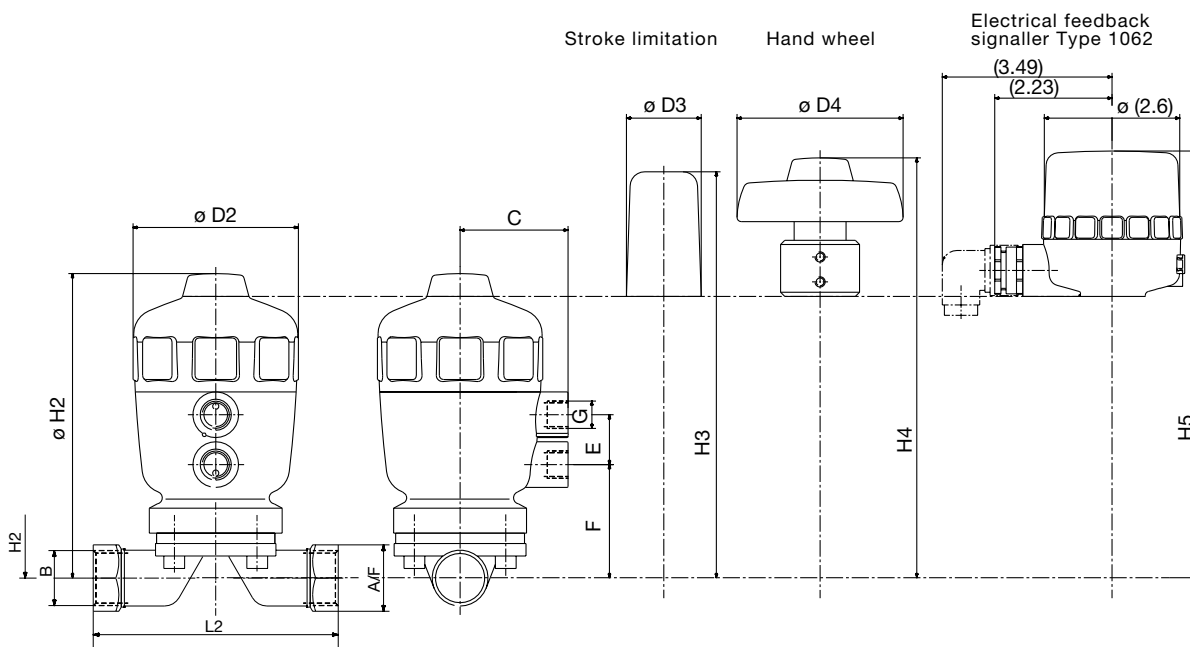
Control fluid Neutral gases, air

General Purpose

Materials



Dimensions (inch)



Threaded port connection

Orifice	Actuator	B	C	ø D2	ø D3	ø D4	E	F	G	H2	H3	H4	H5	L2	A/F
[inch]	[inch]	NPT"													
5/16	1.58	1/4	1.34	2.09	-	-	0.65	1.14	G 1/8	3.35	-	-	-	3.35	0.66
9/16	1.97	1/2	1.54	2.52	1.54	3.15	0.79	1.73	G 1/8	4.81	6.78	7.01	7.13	4.02	1.06
9/16	2.48	1/2	2.05	3.15	1.54	3.15	0.95	1.69	G 1/4	5.48	7.45	7.68	7.80	4.02	1.06
3/4	2.48	3/4	2.05	3.15	1.54	3.15	0.95	2.13	G 1/4	5.75	7.80	8.04	8.16	4.45	1.26
3/4	3.15	3/4	2.36	3.98	1.54	3.15	0.95	2.44	G 1/4	6.86	8.83	9.06	9.18	4.45	1.26
1	3.15	1	2.36	3.98	1.54	3.15	0.95	2.56	G 1/4	6.97	8.94	9.18	9.30	5.00	1.62
1 1/4	3.94	1 1/4	2.88	5.00	2.09	5.91	0.95	3.19	G 1/4	9.06	11.94	11.82	11.27	5.75	1.97
1 1/2	3.94	1 1/2	2.88	5.00	2.09	5.91	0.95	3.35	G 1/4	9.26	12.14	12.02	11.47	6.26	2.36
1 1/2	4.93	1 1/2	3.39	6.03	2.09	5.91	1.18	3.66	G 1/4	10.80	13.67	13.55	13.00	6.26	2.36
2	4.93	2	3.39	6.03	2.09	5.91	1.18	3.90	G 1/4	10.95	13.83	13.71	13.16	7.53	2.76

General Purpose

Ordering Chart (Other Versions on Request)

Control Function A, normally closed by spring, NPT-port connection, PA-actuator

Port connect.	Orifice [inch]	Diaphragm	Operating pressure [PSI]	Actuator Size [inch]	Item No.
NPT 1/4	5/16	EPDM	140	1.58	135 444 N
NPT 1/4	5/16	PTFE/EPDM	130	1.58	135 448 S
NPT 1/2	9/16	EPDM	100	1.97	135 462 Q
NPT 1/2	9/16	EPDM	140	2.48	135 468 W
NPT 1/2	9/16	PTFE/EPDM	123	2.48	135 475 M
NPT 3/4	3/4	EPDM	108	2.48	135 484 F
NPT 3/4	3/4	EPDM	140	3.15	135 494 H
NPT 3/4	3/4	PTFE/EPDM	140	3.15	135 496 B
NPT 1	1	EPDM	70	2.48	135 506 M
NPT 1	1	EPDM	140	3.15	135 517 F
NPT 1	1	PTFE/EPDM	100	3.15	135 519 R
NPT 1 1/4	1 1/4	EPDM	140	3.94	135 528 J
NPT 1 1/4	1 1/4	PTFE/EPDM	115	3.94	135 543 R
NPT 1 1/2	1 1/2	EPDM	100	3.94	135 551 R
NPT 1 1/2	1 1/2	EPDM	140	4.93	135 558 Y
NPT 1 1/2	1 1/2	PTFE/EPDM	140	4.93	135 573 P
NPT 2	2	EPDM	123	4.93	135 588 P
NPT 2	2	PTFE/EPDM	100	4.93	135 535 E

Control Function A, normally closed by spring, NPT port connection, PPS-actuator

Port connect.	Orifice [inch]	Diaphragm	Operating pressure [PSI]	Actuator Size [inch]	Item No.
NPT 1/4	5/16	EPDM	140	1.58	
NPT 1/4	5/16	PTFE/EPDM	130	1.58	
NPT 1/2	9/16	EPDM	100	1.97	
NPT 1/2	9/16	EPDM	140	2.48	
NPT 1/2	9/16	PTFE/EPDM	123	2.48	
NPT 3/4	3/4	EPDM	108	2.48	Consult
NPT 3/4	3/4	EPDM	140	3.15	Factory
NPT 3/4	3/4	PTFE/EPDM	140	3.15	
NPT 1	1	EPDM	70	2.48	
NPT 1	1	EPDM	140	3.15	
NPT 1	1	PTFE/EPDM	100	3.15	
NPT 1 1/4	1 1/4	EPDM	140	3.94	
NPT 1 1/4	1 1/4	PTFE/EPDM	115	3.94	
NPT 1 1/2	1 1/2	EPDM	100	3.94	
NPT 1 1/2	1 1/2	EPDM	140	4.93	
NPT 1 1/2	1 1/2	PTFE/EPDM	140	4.93	
NPT 2	2	EPDM	123	4.93	
NPT 2	2	PTFE/EPDM	100	4.93	

Control Function I, double-acting actuator, NPT-port connection, PA-actuator

Port connect.	Orifice [inch]	Diaphragm	Operating pressure [PSI]	Actuator Size [inch]	Item No.
NPT 1/4	5/16	EPDM	140	1.58	457 270 N
NPT 1/4	5/16	PTFE/EPDM	140	1.58	457 271 B
NPT 1/2	9/16	EPDM	140	1.97	457 272 C
NPT 1/2	9/16	PTFE/EPDM	134	2.48	457 273 D
NPT 3/4	3/4	EPDM	123	2.48	457 274 E
NPT 3/4	3/4	EPDM	140	3.15	457 275 F
NPT 3/4	3/4	PTFE/EPDM	140	3.15	457 276 G
NPT 1	1	EPDM	140	3.15	457 277 H
NPT 1	1	PTFE/EPDM	130	3.15	457 278 J
NPT 1 1/4	1 1/4	EPDM	140	3.94	457 279 K
NPT 1 1/4	1 1/4	PTFE/EPDM	130	3.94	457 280 H
NPT 1 1/2	1 1/2	EPDM	140	3.94	457 281 W
NPT 1 1/2	1 1/2	PTFE/EPDM	140	4.93	457 282 X
NPT 2	2	EPDM	140	4.93	457 283 Y
NPT 2	2	PTFE/EPDM	134	4.93	457 284 Z

Control Function I, double-acting actuator, NPT port connection, PPS-actuator

Port connect.	Orifice [inch]	Diaphragm	Operating pressure [PSI]	Actuator Size [inch]	Item No.
NPT 1/4	5/16	EPDM	140	1.58	
NPT 1/4	5/16	PTFE/EPDM	140	1.58	
NPT 1/2	9/16	EPDM	140	1.97	
NPT 1/2	9/16	PTFE/EPDM	134	2.48	
NPT 3/4	3/4	EPDM	123	2.48	Consult
NPT 3/4	3/4	EPDM	140	3.15	Factory
NPT 3/4	3/4	PTFE/EPDM	140	3.15	
NPT 1	1	EPDM	140	3.15	
NPT 1	1	PTFE/EPDM	130	3.15	
NPT 1 1/4	1 1/4	EPDM	140	3.94	
NPT 1 1/4	1 1/4	PTFE/EPDM	130	3.94	
NPT 1 1/2	1 1/2	EPDM	140	3.94	
NPT 1 1/2	1 1/2	PTFE/EPDM	140	4.93	
NPT 2	2	EPDM	140	4.93	
NPT 2	2	PTFE/EPDM	134	4.93	

Accessories and Options on Request

- Digital electro-pneumatic positioner
- Electrical feedback signaller Type 1062
- Magnetic-inductive proximity sensors for position sensing mounted to the actuator
- Independently adjustable stroke limitation:
 - for maximum flow
 - for minimum flow
- Hand wheel
- Namur adapter for pilot valve
- Control function B, normally opened by spring

We reserve the right to make technical changes without notice.

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