2031
NPT stainless steel

2/2–way, 1/4" – 2"
Diaphragm valve – stainless steel

- Hermetic isolation of fluid from the atmosphere
- Corrosion resistant
- Long service life even with “dirty” or high viscosity fluids

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 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 fitted with a comprehensive range of accessories for position indication, stroke limitation or hand wheel operation.

Operating Data (valve)	
Fluid temperature depending on diaphragm material EPDM PTFE	 14°F to 284°F 14°F to 284°F
Valve body	316 L stainless steel
Body surfaces	Internally Ra 40 to Ra 88
Diaphragm material	EPDM, PTFE
On request	Digital electro–pneumatic positioner

Operating data	
Material	PA (Polyamide) PPS (Polyphenylsulfide)
Ambient temperature	PA 14°F to 140°F PPS[1] 40°F to 190°F [1] Temp. to 280°F max. for short intervals only
Control pressure Max. admissable control pressure	 145 PSI (PA) 100 PSI (PPS)
Circuit function A (spring to close) Min. required control pressure	 80 PSI
Circuit function I (no spring) The following min. control pressures are required to provide max. operating pressure	 87 PSI
Control fluid	neutral gas, air

Applications

- Pollution control equipment
- Chemical processing equipment
- Water treatment
- Textile dyeing
- Paint spraying equipment

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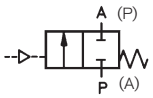
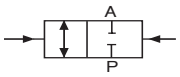
Technical data

Control Functions

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



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

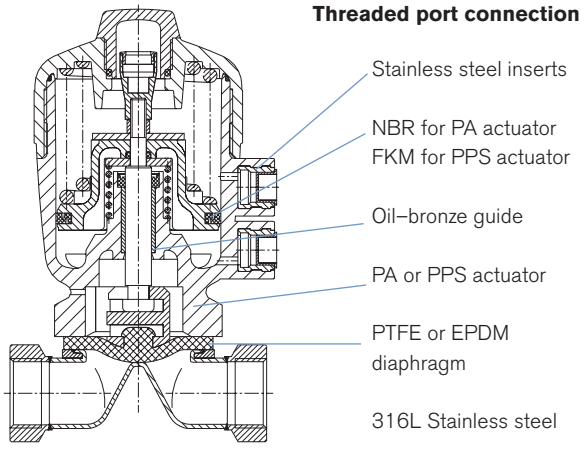


B – 2/2–way valve, normally open
by spring action

Specifications

Port Connections [inch]	Orifice [inch]	C_v–Rating	Operating Pressure Diaphragm		Actuator size [ø inch]	Weight [lbs.]
			EPDM [PSI]	PTFE [PSI]		
1/4	5/16	1.2	145	145	1.58	.9
1/2	9/16	7.6	100	––	1.97	1.5
1/2	9/16	7.6	145	145	2.48	2.1
3/4	3/4	15.2	145	140	3.15	4.4
1	1	24.5	70	––	2.48	2.9
1	1	24.5	145	100	3.15	4.8
1-1/4	1-1/4	38.6	145	115	3.94	8.6
1-1/2	1-1/2	53.8	94	––	3.94	9.2
1-1/2	1-1/2	53.8	145	140	4.93	16.5
2	2	82.0	115	100	4.93	16.7

Materials



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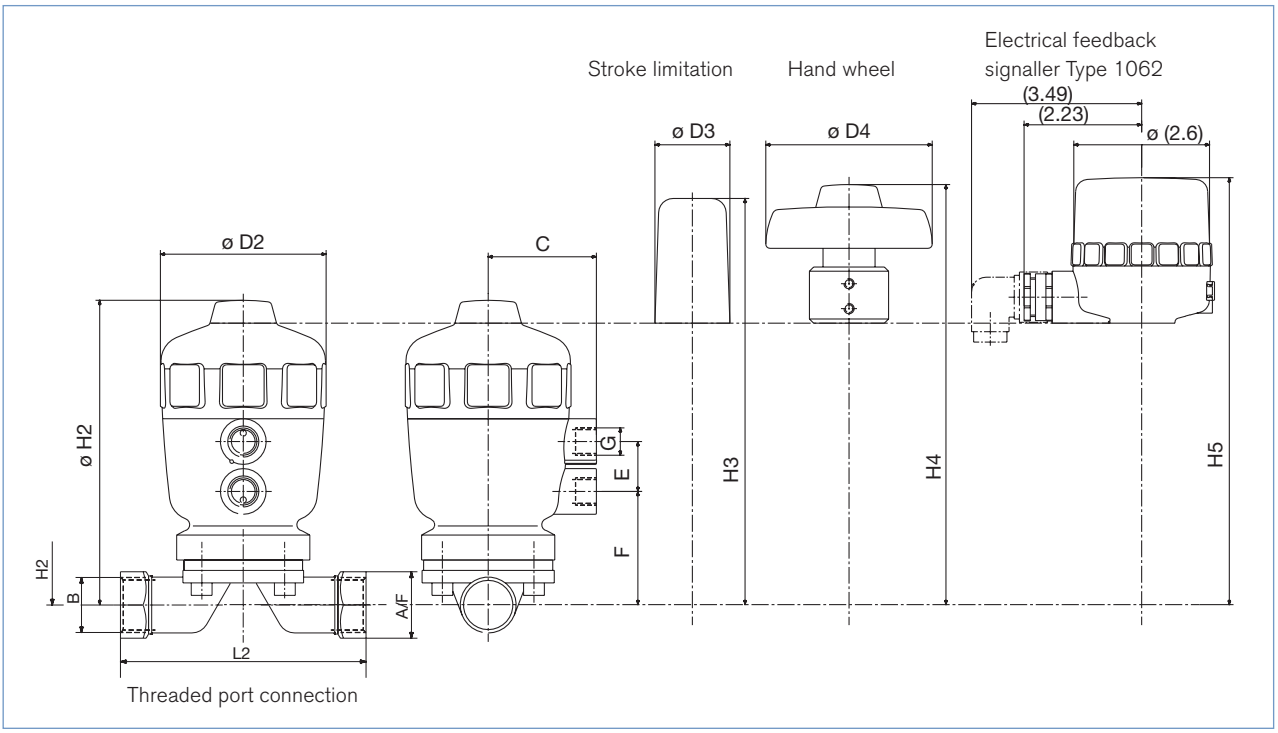
Dimensions [inch]



Orifice [inch]	Actuator [inch]	B NPT"	C	ø D2	ø D3	ø D4	E	F	G	H2	H3	H4	H5	L2	A/F
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

Accessories and options on request

- Pilot Valves
- 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
- Control function B, normally opened by spring

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Ordering charts (other versions on request)

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

Port Connection	Orifice [inch]	Diaphragm	Operating pressure [PSI]	Actuator Size [inch]	Item no.
NPT 1/4	5/16	EPDM	145	1.58	Use PPS
NPT 1/4	5/16	PTFE/EPDM	145	1.58	Use PPS
NPT 1/2	9/16	EPDM	123	1.97	459 023 Y
NPT 1/2	9/16	EPDM	145	2.48	459 024 Z
NPT 1/2	9/16	PTFE/EPDM	145	2.48	459 027 U
NPT 3/4	3/4	EPDM	145	2.48	459 025 S
NPT 3/4	3/4	EPDM	145	3.15	459 026 T
NPT 3/4	3/4	PTFE/EPDM	145	3.15	459 028 D
NPT 1	1	EPDM	43	2.48	458 587 S
NPT 1	1	EPDM	145	3.15	458 588 B
NPT 1	1	PTFE/EPDM	108	3.15	458 595 S
NPT 11/4	1 1/4	EPDM	145	3.94	459 029 C
NPT 11/4	1 1/4	PTFE/EPDM	115	3.94	459 031 Y
NPT 11/2	1 1/2	EPDM	94	3.94	458 601 Q
NPT 11/2	1 1/2	EPDM	145	4.93	458 603 J
NPT 11/2	1 1/2	PTFE/EPDM	145	4.93	458 607 N
NPT 2	2	EPDM	115	4.93	458 609 Y
NPT 2	2	PTFE/EPDM	100	4.93	458 613 B

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

Port Connection	Orifice [inch]	Diaphragm	Operating pressure [PSI]	Actuator Size [inch]	Item no.
NPT 1/4	5/16	EPDM	145	1.58	135 444 N
NPT 1/4	5/16	PTFE/EPDM	145	1.58	135 448 S
NPT 1/2	9/16	EPDM	123	1.97	TBD
NPT 1/2	9/16	EPDM	145	2.48	TBD
NPT 1/2	9/16	PTFE/EPDM	145	2.48	TBD
NPT 3/4	3/4	EPDM	145	2.48	TBD
NPT 3/4	3/4	EPDM	145	3.15	TBD
NPT 3/4	3/4	PTFE/EPDM	145	3.15	TBD
NPT 1	1	EPDM	43	2.48	TBD
NPT 1	1	EPDM	145	3.15	TBD
NPT 1	1	PTFE/EPDM	108	3.15	TBD
NPT 11/4	1 1/4	EPDM	145	3.94	TBD
NPT 11/4	1 1/4	PTFE/EPDM	115	3.94	TBD
NPT 11/2	1 1/2	EPDM	94	3.94	TBD
NPT 11/2	1 1/2	EPDM	145	4.93	TBD
NPT 11/2	1 1/2	PTFE/EPDM	145	4.93	TBD
NPT 2	2	EPDM	115	4.93	TBD
NPT 2	2	PTFE/EPDM	100	4.93	TBD

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

Port Connection	Orifice [inch]	Diaphragm	Operating pressure [PSI]	Actuator Size [inch]	Item no.
NPT 1/4	5/16	EPDM	145	1.58	Use PPS
NPT 1/4	5/16	PTFE/EPDM	145	1.58	Use PPS
NPT 1/2	9/16	EPDM	145	1.97	459 032 Z
NPT 1/2	9/16	PTFE/EPDM	145	2.48	459 035 U
NPT 3/4	3/4	EPDM	145	2.48	459 033 S
NPT 3/4	3/4	EPDM	145	3.15	459 034 T
NPT 3/4	3/4	PTFE/EPDM	145	3.15	459 036 V
NPT 1	1	EPDM	145	3.15	459 213 B
NPT 1	1	PTFE/EPDM	145	3.15	458 620 N
NPT 11/4	1 1/4	EPDM	145	3.94	459 037 W
NPT 11/4	1 1/4	PTFE/EPDM	145	3.94	459 068 F
NPT 11/2	1 1/2	EPDM	145	3.94	458 622 C
NPT 11/2	1 1/2	PTFE/EPDM	145	4.93	458 624 E
NPT 2	2	EPDM	145	4.93	458 625 F
NPT 2	2	PTFE/EPDM	145	4.93	458 626 G

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

Port Connection	Orifice [inch]	Diaphragm	Operating pressure [PSI]	Actuator Size [inch]	Item no.
NPT 1/4	5/16	EPDM	145	1.58	457 270 N
NPT 1/4	5/16	PTFE/EPDM	145	1.58	457 271 B
NPT 1/2	9/16	EPDM	145	1.97	TBD
NPT 1/2	9/16	PTFE/EPDM	145	2.48	TBD
NPT 3/4	3/4	EPDM	145	2.48	TBD
NPT 3/4	3/4	EPDM	145	3.15	TBD
NPT 3/4	3/4	PTFE/EPDM	145	3.15	TBD
NPT 1	1	EPDM	145	3.15	TBD
NPT 1	1	PTFE/EPDM	145	3.15	TBD
NPT 11/4	1 1/4	EPDM	145	3.94	TBD
NPT 11/4	1 1/4	PTFE/EPDM	145	3.94	TBD
NPT 11/2	1 1/2	EPDM	145	3.94	TBD
NPT 11/2	1 1/2	PTFE/EPDM	145	4.93	TBD
NPT 2	2	EPDM	145	4.93	TBD
NPT 2	2	PTFE/EPDM	145	4.93	TBD

In case of special application conditions, please consult for advice.

We reserve the right to make technical changes without notice.

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