

Pneumatically Operated 2/2-way Diaphragm Valve CLASSIC for Decentralized Automation

- Diaphragm hermetically separates the fluids from the operating mechanism
- Easy integration of limit switches and banjo solenoids
- SS body with clamp or weld ends
- Internationally certified for pharmaceutical, aseptic, sterile and sanitary food applications



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FOR DATA SHEET

The externally piloted diaphragm valve Type 2031 consists of a pneumatically operated piston actuator, a diaphragm and a 2-way valve housing made of forged stainless steel. The high-quality and chemically resistant PPS (thermoplastic) actuator with a visual open/close indicator, is designed for usage in hygienic or aggressive environments. The flow optimized and zero dead volume valve body makes high flow rates possible and a variety of applications to be realized. The design enables the easy integration of electrical position feedback and local actuation via directly-mounted NAMUR type solenoid valves.

Technical Data

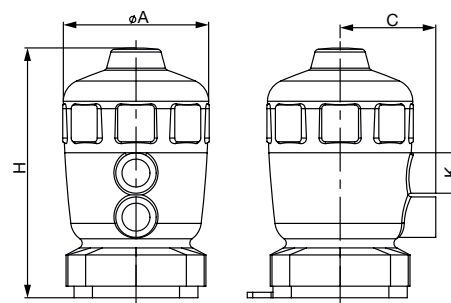
Port connection	1/4" to 4" available (port connection only)
Diaphragm size	3/8" to 4.0" (DN8 to DN100)
Port connections	
Weld ends	ASME BPE
Clamps	ASME BPE
	(other piping standards available on request)
Materials	
Body	Stainless Steel 316L / 1.4435 / BN2
Diaphragm materials	PTFE/EPDM (EA), EPDM (AD), Advanced PTFE/EPDM (EU) on request: FKM (FF) PPS, PA (on request)
Actuator / Cover	
Media	Neutral gases and liquids, high-purity, sterile, aggressive or abrasive fluids
Surface finish	As listed, alternative internal/external surface finishes available upon request
Medium temperature	
EPDM (AD) ¹⁾	14 to 289.4°F (steam sterilization 302°F for 60 min)
PTFE/EPDM (EA) ¹⁾	14 to 266°F (steam sterilization 284°F for 60 min)
Advanced PTFE/EPDM (EU) ¹⁾	23 to 289.4°F (steam sterilization 302°F for 60 min)
Ambient temperature	
PPS Actuator size ≤80 mm	41...284°F ⁵⁾
PPS Actuator size 100 mm, 125 mm	41...194 °F (briefly at 284 °F) ⁵⁾
Control medium	Neutral gases; air
Max. pilot pressure	102 PSig (87 PSig for actuator size 175/225mm)

1) This information is part of the product key (see data sheet)

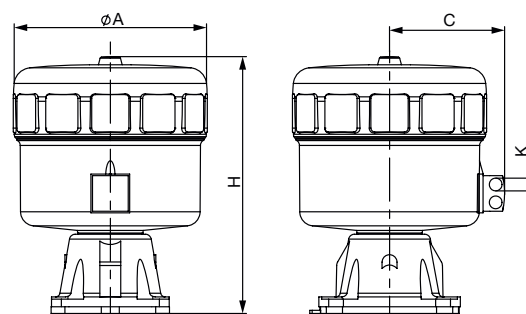
5) For standard version

Dimensions [mm]

Diaphragm size 8...50

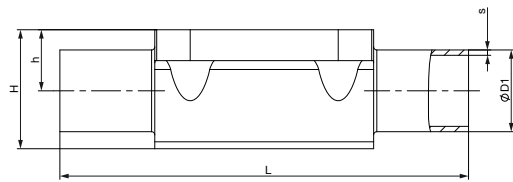


Diaphragm size 65...100



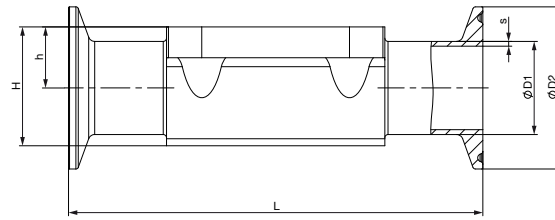
Diaphragm size	Actuator size Ø	ØA	C	K	H
8	40(C)	53	34	G 1/8"	89
15	50(D)	64	39	G 1/8"	108
	63(E)	80	52	G 1/4"	125
20	63(E)	80	52	G 1/4"	131
	80(F)	101	60	G 1/4"	152
25	63(E)	80	52	G 1/4"	136
	80(F)	101	60	G 1/4"	156
40	100(G)	127	73	G 1/4"	205
	125(H)	158	86	G 1/4"	243
50	100(G)	127	73	G 1/4"	207
	125(H)	158	86	G 1/4"	242
65	175(K)	211	130	G 1/4"	350
80	175(K)	211	130	G 1/4"	350
	225(L)	261	155	G 1/4"	345
100	225(L)	261	155	G 1/4"	345

Technical data (continued)



Forged body - weld end

Port connection DN	[mm]	[inch]	DIA. size	ØD1	s	L	h	H	Self- drain angle [°]
ASME BPE									
10	1/4"	3/8"	0.25	0.065	3.07	0.38	0.73	48	
10	3/8"	3/8"	0.375	0.065	3.50	0.38	0.73	39	
10	1/2"	3/8"	0.5	0.065	3.50	0.38	0.73	26	
15	1/2"	1/2"	0.5	0.065	4.25	0.32	0.79	41	
20	3/4"	3/4"	0.75	0.065	4.61	0.71	1.18	29	
25	1"	1"	1	0.065	5.00	0.79	1.16	27	
40	1-1/2"	1-1/2"	1.5	0.065	6.26	1.13	2.05	24	
50	2"	2"	2	0.065	7.48	1.40	2.68	20	
50	2.5"	2"	2.5	0.065	7.56	1.40	2.70	11	



Forged body - clamp

Port connection DN	[mm]	[inch]	DIA. size	ØD1	s	ØD2	h	H	L	Self- drain angle [°]
ASME BPE										
10	1/4"	3/8"	0.25	0.065	1.0	0.22	0.60	2.54	48	
10	3/8"	3/8"	0.375	0.065	1.0	0.22	0.60	3.50	39	
10	1/2"	3/8"	0.5	0.065	1.0	0.37	0.74	2.52	26	
15	1/2"	1/2"	0.5	0.065	1.0	0.37	0.78	3.50	41	
20	3/4"	3/4"	0.75	0.065	1.0	0.63	1.19	4.02	29	
25	1"	1"	1	0.065	2.0	0.75	1.46	4.49	27	
40	1-1/2"	1-1/2"	1.5	0.065	2.0	1.10	2.06	5.51	24	
50	2"	2"	2	0.065	2.5	1.40	2.69	6.26	20	
50	2.5"	2"	2.5	0.065	3.0	1.40	2.69	7.48	11	

Ordering Chart

DIA.	Connection (in.)	Seat (mm)	Internal surface finish	Actuator Size (O, mm)	Cv (usgpm)	Max. Process Pressure (PSIg)	Item no. Welded	Item no. Triclamp
Actuator Function Normally Closed (air to open)								
EPDM	1/4"	8	20 Ra Mechanical (BPE SF1)	40	0.81	147	347874	20022210
	3/8"	8		40	1.85	147	350272	20059655
	1/2"	8		40	1.73	147	341468	341139
	1/2"	15		63	3.58	147	348033	20065077
	3/4"	20		80	10.40	147	20065079	20065080
	1"	25		80	17.92	147	341470	341141
	1-1/2"	40		125	42.77	147	347707	347712
	2"	50		125	76.30	116	341472	341143
	2-1/2"	50		125	76.30	116	341473	341144
PTFE / EPDM	1/4"	8	20 Ra Mechanical (BPE SF1)	40	0.81	147	347926	343159
	3/8"	8		40	2.08	147	347927	347937
	1/2"	8		40	2.20	147	341483	341155
	1/2"	15		63	3.58	147	348090	348111
	3/4"	20		80	10.40	147	363104	348338
	1"	25		80	16.76	125	341485	341157
	1-1/2"	40		125	43.35	147	345919	345367
	2"	50		125	76.30	103	341487	341160
	2-1/2"	50		125	76.30	103	341488	341161
EPDM	1/4"	8	15 Ra Electropolished (BPE SF4)	40	0.81	103	20048780	20059654
	3/8"	8		40	1.85	103	20048782	20059656
	1/2"	8		40	1.73	103	341475	341147
	1/2"	15		63	3.58	103	348031	392941
	3/4"	20		80	10.40	103	20065084	20065085
	1"	25		80	17.92	103	341477	341149
	1-1/2"	40		125	42.77	103	347708	20065086
	2"	50		125	76.30	103	341479	341151
	2-1/2"	50		125	76.30	103	341480	341152
PTFE / EPDM	1/4"	8	15 Ra Electropolished (BPE SF4)	40	0.81	103	20059657	20059662
	3/8"	8		40	2.08	103	20059659	347938
	1/2"	8		40	2.20	103	341490	341163
	1/2"	15		63	3.58	103	358219	348113
	3/4"	20		80	10.40	103	348323	348340
	1"	25		80	16.76	103	341492	341165
	1-1/2"	40		125	43.35	103	346978	347745
	2"	50		125	76.30	103	341494	341167
	2-1/2"	50		125	76.30	103	341495	341168

Ordering Chart

DIA.	Connection (in.)	Seat (mm)	Internal surface finish	Actuator Size (O, mm)	Cv (usgpm)	Max. Process Pressure (PSIg)	Item no. Welded	Item no. Triclamp
Actuator Function Normally Open (air to close)								
EPDM	1/4"	8	20 Ra Mechanical (BPE SF1)	40	0.81	147	20059777	20059974
	3/8"	8		40	1.85		20059781	20059980
	1/2"	8		40	1.73		348147	348150
	1/2"	15		63	3.58		20065091	20065092
	3/4"	20		63	9.25		20060389	345370
	1"	25		80	17.92		387534	348331
	1-1/2"	40		125	42.77		20065100	20065101
	2"	50		125	76.30		20060408	20060409
	2-1/2"	50		125	76.30		20060419	20060426
PTFE / EPDM	1/4"	8	20 Ra Mechanical (BPE SF1)	40	0.81	147	20060015	20060193
	3/8"	8		40	2.08		20060017	20060204
	1/2"	8		40	2.20		20060019	348170
	1/2"	15		63	3.58		20065102	348243
	3/4"	20		63	9.25		20060395	20060397
	1"	25		80	16.76		348357	348359
	1-1/2"	40		125	43.35		20065103	349447
	2"	50		125	76.30		20060445	348463
	2-1/2"	50		125	76.30		20060447	348467
EPDM	1/4"	8	15 Ra Electropolished (BPE SF4)	40	0.81	147	20059778	20059975
	3/8"	8		40	1.85		20059966	20059984
	1/2"	8		40	1.73		20059970	20060014
	1/2"	15		63	3.58		20065104	20065105
	3/4"	20		63	9.25		20060392	20060394
	1"	25		80	17.92		20048785	20060401
	1-1/2"	40		125	42.77		20065106	20065107
	2"	50		125	76.30		348442	20060416
	2-1/2"	50		125	76.30		20060420	20060442
PTFE / EPDM	1/4"	8	15 Ra Electropolished (BPE SF4)	40	0.81	147	20060016	20060197
	3/8"	8		40	2.08		20060018	20060205
	1/2"	8		40	2.20		380887	371958
	1/2"	15		63	3.58		20065109	20065110
	3/4"	20		63	9.25		20060396	20060398
	1"	25		80	16.76		348355	348361
	1-1/2"	40		125	43.35		348412	348414
	2"	50		125	76.30		348459	371970
	2-1/2"	50		125	76.30		348461	20060448

Local USA Diaphragm Valve Manufacturing now in our Huntersville, North Carolina Location

