

TYPE-14 A/P PNEUMATIC DIAPHRAGM VALVE



TECHNICAL SPECIFICATION:

Size range:	2-1/2" - 4"
Body Material:	PVC, CPVC, PP, PVDF
Actuator Material:	PPG
Diaphragm:	EPDM, PTFE
End Connections:	ANSI Flanged
Type:	Air-to-air, air-to-spring
Air Connections:	1/4" NPT
Air Supply:	60psi recommended 75psi maximum

FEATURES:

- Rugged solid thermoplastic construction
- Weir design for precision flow control
- NAMUR pad mount for solenoids
- Bubble tight sealing, even with applications of slurries or those with suspended particles
- Adjustable travel stop to prevent diaphragm from being overtightened
- Integrally molded bottom stand for simple yet firm panel mounting
- Visual position indication
- PVDF gas barrier, which protects EPDM backing cushion from gas permeation, is a standard for all valves with PTFE diaphragm

OPTIONS:

- Solenoids in a variety of electrical type ratings and voltages
- Limit switches
- Positioners

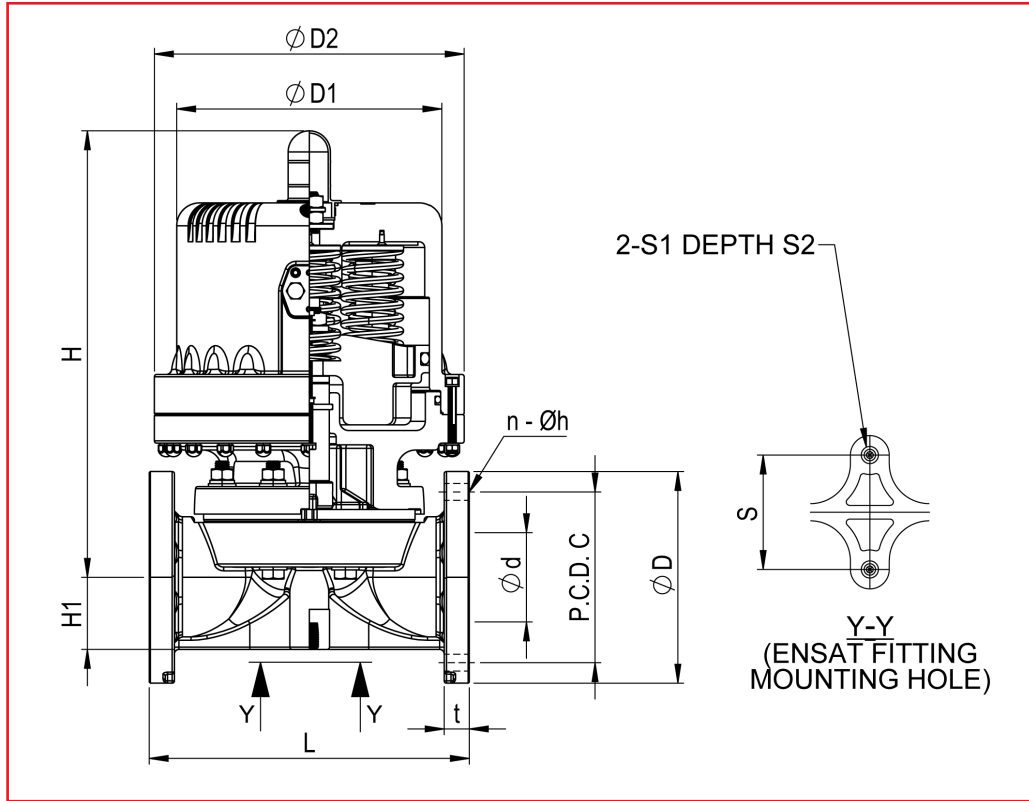
FUNCTIONAL SPECIFICATION:

All Type-14 actuated diaphragm valves shall be of solid thermoplastic construction for body with the actuator housing of glass-filled polypropylene. The actuator shall come standard with an "at a glance" position indicator and pad mount according to NAMUR for solenoid mounting. Air supply shall be 60 - 75psi. The valve body shall have a panel mount feature for support. Face-to-face dimensions shall conform to Type-G. PVC conforming to ASTM D1784 Cell Classification 12454A, CPVC conforming to ASTM D1784 Cell Classification 23567A, PP conforming to ASTM D4101 Cell Classification PP0210B67272, PPG (bonnet only) conforming to ASTM D4101 Cell Classification PP0110M20A21130, and PVDF conforming to ASTM D3222 Cell Classification Type II. PVC, CPVC, PP and PVDF shall be rated to 150psi for elastomeric and PTFE diaphragms at 70° F, as manufactured by Asahi/America, Inc.

Size (in)	A-S Weight (lbs)	A-A Weight (lbs)	CV
2-1/2	30.2	25.1	85
3	39.9	27.6	115
4	62.2	38.1	185

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DIMENSIONS:



Nominal Size		d	ANSI Class 150				D1	D2	L	Lift	t		H		H1	S	S1	S2
inch	mm		D	C	n	h					PVC CPVC	PP PVDF	Air-to-Air	Spring-to-Close				
2-1/2	65	2.64	7.00	5.50	4.00	0.75	8.50	10.04	9.84	1.34	0.87	0.91	13.90	13.90	2.40	3.35	M8	0.59
3	80	3.07	7.50	6.00	4.00	0.75	9.13	10.67	11.02	1.65	0.87	0.91	14.80	15.31	2.48	3.94	M12	0.87
4	100	3.94	9.00	7.50	8.00	0.75	10.87	12.40	13.39	1.97	0.87	0.94	16.85	17.76	3.07	4.72	M12	0.87

PRESSURE VS. TEMPERATURE (psi, water, non-shock)

Nominal Size		PVC		CPVC				PP				PVDF			
		All Diaphragms		All Diaphragms				All Diaphragms				PTFE Diaphragm			
		30° F 105° F	106° F 140° F	30° F 105° F	106° F 140° F	141° F 175° F	176° F 195° F	-5° F 105° F	106° F 140° F	141° F 175° F	176° F 195° F	-40° F 140° F	141° F 175° F	176° F 210° F	211° F 250° F
inch	mm														
2-1/2	65	150	115	150	120	95	85	150	120	95	85	150	115	85	70
3	80	150	115	150	120	95	85	150	120	95	85	150	115	85	70
4	100	150	115	150	120	95	85	150	120	95	85	150	115	85	70

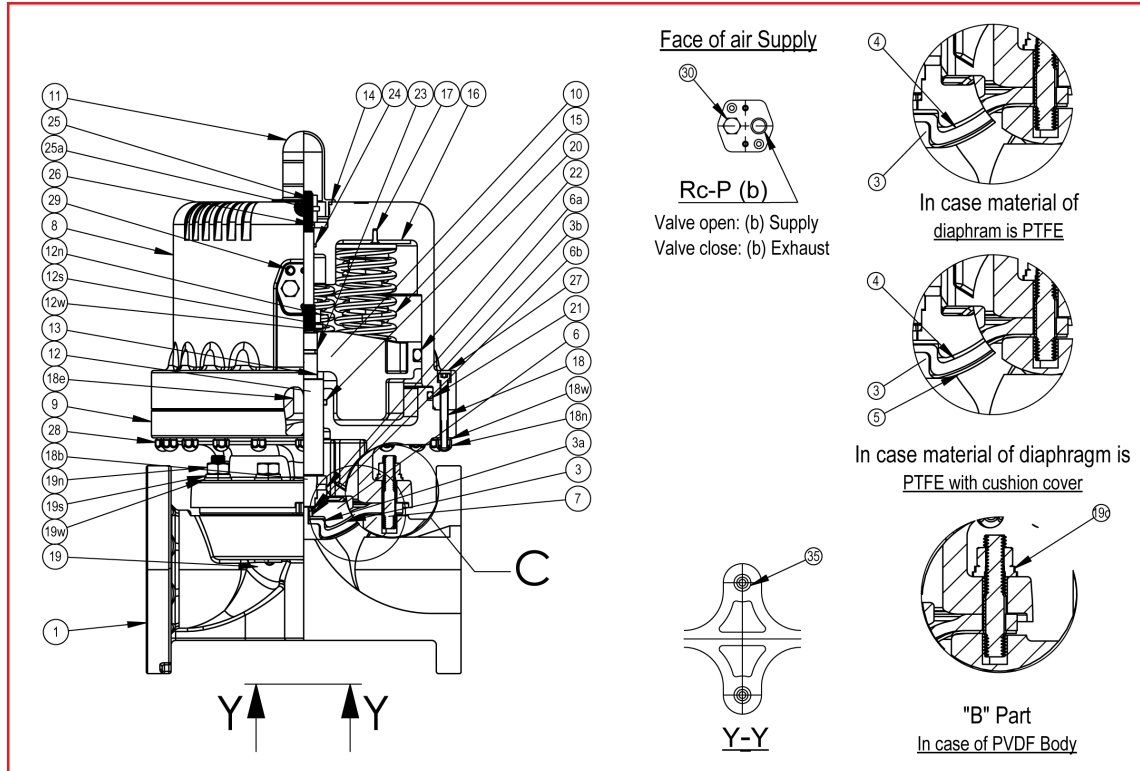
CAUTION:

- After replacing diaphragm, do not tighten bolts for bonnet and body with diaphragm in the closed position
- Excessive force could damage bonnet or body
- Fully vacuum-rated at 2-1/2"
- Never remove valve from pipeline under pressure
- Always wear protective gloves and goggles

Vacuum Rating		
inch	Rubber Diaphragms (inch)	PTFE Diaphragms (inch)
3	-25.59	-9.84
4	-19.69	-3.94

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PARTS VIEW:



Part Number/Name	Qty.	Material	Part Number/Name	Qty.	Material	Part Number/Name	Qty.	Material			
1	Body	1	PVC, CPVC, PP, PVDF	11	Gauge Cover	1	PC	19s	Spring Washer (no. 19)	8	Stainless Steel
1a	Inserted	4	Copper Alloy (for PVC, CPVC, PP body); Stainless Steel (for PVDF body)	12	Stem	1	Stainless Steel	19w	Washer (no. 19)	12	Stainless Steel
3	Diaphragm	1	EPDM, PTFE, Others	12n	Nut (no. 12)	1	Stainless Steel	20	O-Ring (no. 20)	1	NBR
3a	Inserted Metal of Diaphragm	1	Stainless Steel	12s	Spring Washer (no. 12)	1	Stainless Steel	21	O-Ring (no. 21)	1	NBR
3b	Diaphragm Pin	1	Stainless Steel	13	Stem Washer	1	Stainless Steel	22	O-Ring (no. 22)	1	NBR
4	Cushion	1	EPDM (for PTFE Diaphragm)	14	O-Ring (no. 14)	1	EPDM	23	O-Ring (no. 23)	1	NBR
5	Cushion Cover	1	PVDF (for PTFE Diaphragm)	15	Spring Unit	-	SWOSC-B etc.	24	O-Ring (no. 24)	1	NBR
6	Compressor	1	PVDF	16	Spring Base	1	PVC	25	Stopper	1 set	Stainless Steel
6a	Compressor Pin	1	Stainless Steel	17	Screw	4	Stainless Steel	25a	Spring Washer (no. 25)	1	Stainless Steel
6b	Metal of Compressor	1	Stainless Steel	18	Cap Bolt (no. 18)	-	Stainless Steel	26	Stopper Base	1	Stainless Steel
7	Stud Bolt	4	Stainless Steel	18b	Bolt (no. 18)	1	Stainless Steel	27	Cap	-	EPDM (0.6 MPa: Red 1.0MPa: Blue)
8	Cylinder Body	1	PPG	18e	Inserted Nut (no. 18)	1	Copper Alloy	28	Nut Cap	-	PVC
9	Cylinder Bonnet	1	PPG	18n	Nut (no. 18)	-	Stainless Steel	29	Inserted Metal of Cylinder Body	2	Stainless Steel
10	Piston	1	PF + GF	18w	Washer (no. 18)	-	Stainless Steel	30	Nipple	1	PPG
				19	Bolt (no. 19)	4	Stainless Steel	35	Ensart for Body	2	Copper Alloy
				19c	Conical Spring Washer (no. 19)	8 sets	Stainless Steel (for PVDF body)				
				19n	Nut (no. 19)	8	Stainless Steel				