

Type 14 Pneumatic

Diaphragm Valves

Parts Type 14 Pneumatic (1/2" – 2")

PARTS			
NO.	DESCRIPTION	PCS.	MATERIAL
1	Body	1	PVC, CPVC, PP, PVDF
3	Diaphragm	1	EPDM, PTFE, Others
3a	Diaphragm Metal Insert	1	Stainless Steel 304
4	Cushion*	1	EPDM
5	PVDF Gas Barrier**	1	PVDF
6	Compressor	1	PVDF
7	Joint	1	Stainless Steel 304
11	Gauge Cover	1	PC
14	O-Ring (A)	1	EPDM
21	Screw	1	Stainless Steel 304
31	Stem (A)	1	Copper Alloy
32	Stem (B)	1	Copper Alloy
33	Compressor Push Plate	1	Copper Alloy
34	Cylinder Body	1	PPG
34a	Metal Insert for Above	4	Copper Alloy
35	Cylinder Bonnet	1	PPG
35a	Metal Insert for Above	1	Stainless Steel 304
35b	Metal Insert for Above	8	Copper Alloy
35c	Threaded Insert for #35	2	Stainless Steel 304
36	Cylinder Diaphragm	1	NBR
37	Cylinder Diaphragm Plate	2	Stainless Steel 304
38	Conical Spring Washer (B)	1	Stainless Steel 304
39	Bolt (A)	8	Stainless Steel 304
40	Bolt (B)	4	Stainless Steel 304
41	Indicating Rod	1	Stainless Steel 304
43	Stopper	1	Stainless Steel 304
44	O-Ring (D)	1	NBR
45	O-Ring (E)	1	NBR
46	O-Ring (F)	1	NBR
47	Nipple	1	Copper Alloy
48	Spring (A)	1	Spring Steel
49	Spring (B)	1	Spring Steel
50	Spring (C)	1	Spring Steel

* Used for PTFE diaphragm

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Troubleshooting

What if valve does not open or close?

1. Air pressure is too low. Adjust the pressure.
2. Power source of solenoid valve is off. Check the connection.
3. Solenoid wiring is disconnected. Connect.
4. Solenoid voltage is low or incorrect. Check voltage with tester and reset.

5. Air not supplied to solenoid valve.
6. By-pass valve is open. Close it.
7. Speed control on solenoid set incorrectly. Adjust.

What if fluid flows even when closed?

1. Operating pressure is too low (Air-to-Air only). Adjust. Air not exhausted (Air-to-Spring only). Exhaust air.
2. Diaphragm is damaged or worn. Replace.
3. Body may be damaged. Inspect and replace.
4. Foreign material is caught between weir and diaphragm. Disassemble and clean.

What if valve leaks to atmosphere?

1. Bolts for body and actuator improperly tightened. Tighten as specified in *Operation and Maintenance* manual.
2. True Union style: (a) Union nut(s) not tightened properly. Tighten; (b) O-ring between end connector and body is damaged. Replace.

Valve cannot be opened or closed, even though actuator works.

1. Diaphragm is damaged or its compressor joint is broken. Replace part(s).

Sample Specification

All TYPE 14 actuated diaphragm valves shall be of solid thermoplastic construction for body (Molded Flanged or Tru-Union socket, threaded or butt end connectors) and bonnet 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 – 90 psi. The valve body shall have a panel mount feature for support. Actuator to body mount shall be of square design, diaphragm shall be bayonet type connection. Face-to-face dimensions of flanged version shall conform to Type-G. PVC conforming to ASTM D1784 Cell Classification 12454-A, CPVC conforming to ASTM D1784 Cell Classification 23567-A, PP conforming to ASTM D4101 Cell Classification PPO210B67272, PPG (Bonnet Only) conforming to ASTM D4101 Cell Classification PPO110M20A21130, and PVDF conforming to ASTM D3222 Cell Classification Type II. PVC, CPVC, PP and PVDF shall be rated to 150 psi for elastomeric and PTFE diaphragms at 70 degrees F., as manufactured by Asahi/America, Inc.