Type 14 Pneumatic Diaphragm

Features

- Rugged solid thermoplastic construction for maximum corrosion resistance
- Uniquely designed body and bonnet together with diaphragms of new sealing designs by the-state-of-the-art computer aided analysis for superior sealing
- Weir design for excellent throttling
- NAMUR pad mount for easy installation of solenoid valves
- Fully vacuum rated
- Bubble-tight sealing, even in applications such as slurries or those with suspended particles
- Bonnet seals to protect internals from corrosive environments
- Adjustable travel stop to prevent diaphragm from being over-tightened
- Bayonet structure to connect compressor and diaphragm for quick maintenance
- Integrally molded bottom stand for simple yet firm panel mounting
- Indicator at the top for valve position
- PVDF gas barrier, which protects EPDM backing cushion from gas permeation, is standardized for all valves with PTFE diaphragm
- Low profile

Options

- Solenoid valves in all NEMA ratings and voltages
- Limit switches for interface with computers and other equipment
- Positioners: 3 - 15mA and 4 - 20mA inputs for throttling applications
- Manual over-ride for Air-to-Spring

Specifications

- Sizes: 1/2" – 2"
- Body Materials: PVC, CPVC, PP and PVDF
- Bonnet Materials: PPG
- End Connectors: See Valve Materials
- Diaphragms: See Valve Materials
- Actuator Housing: PPG
- Type: Air-to-Air; Air-to-Spring
- Air Supply: 60 psi (Recommended), 90 psi (Maximum)
- O-Ring End Connectors: EPDM

2" PVDF TYPE 14 AIR-TO-AIR FLANGED DIAPHRAGM VALVE

1" PP TYPE 14 AIR-TO-AIR TRUE UNION DIAPHRAGM VALVE

2" PVC TYPE 14 AIR-TO-SPRING FLANGED DIAPHRAGM VALVE WITH NEMA IV DOUBLE LIMIT SWITCH AND NEMA IV SOLENOID VALVE
Dimensions Type 14 Pneumatic Flanged (Sizes 1/2" – 2")

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### 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 PP0110M20A21130, 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.

### 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.

#### 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 joint metal fitting is broken. Replace part(s).