

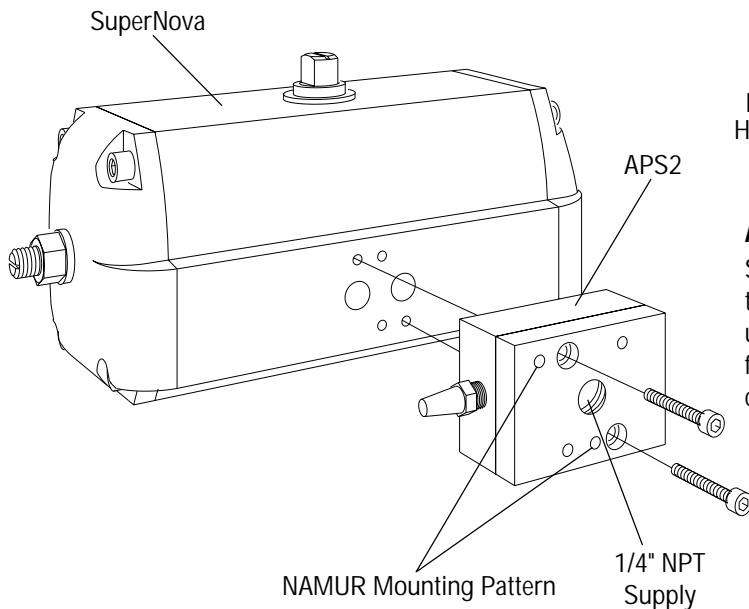
### APS2 Module

#### Installation Instructions

The Automax APS2 may be installed very easily to any SuperNova series spring return actuator, with the hardware supplied with the module.

1. Place each o-ring provided into the o-ring bore on the rear of the module (the side with two large ports.) Each o-ring should be completely seated in the bore.
2. Place the actuator with the two ports facing you, and the stem pointing up. Orient the APS2 module with the o-rings toward the actuator, and the breather vent facing left.
3. The module will be mounted to the actuator, using the two diagonal tapped holes next to the ports. Align these holes with C-bored through holes of the module, and mount with screws provided.

Directional valves may be line mounted to the APS2 by connecting the appropriate valve port to the 1/4" NPT supply port on the front of the APS2. In addition, the module supports the NAMUR mounting standard. In this case, the directional valve should be positioned such that the correct port is covering the APS2 supply. Tapped holes are provided for NAMUR mounting. Two o-rings are required for this arrangement (2mm x 16mm o-ring size).



#### Operation

The Automax APS2 module works with remote line mounted solenoid valves and diverts exhaust air from between the pistons into the spring chamber. This prevents corrosive atmosphere from being pulled into the spring chamber.

*Note: The APS2 can not be used in conjunction with a positioner.*

**Temperature:** -20°F to 180°F

**Pressure:** 20psig to 100psig

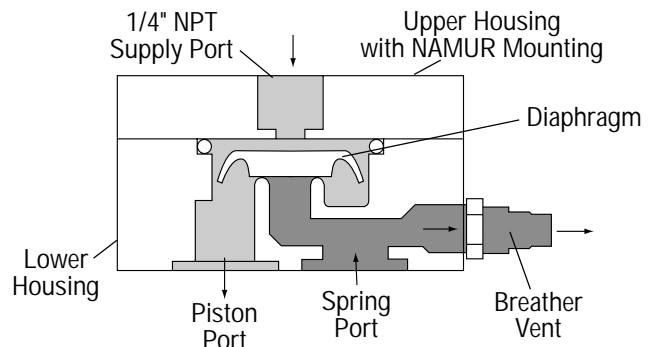
**Media:** Dry or lubricated non-corrosive gas compatible with nitrile and silicone seals.

**Exhaust:**  $C_v = 0.8$  (Spring Return Stroke)

**Inlet:**  $C_v = 1.2$  (Pressure Stroke)

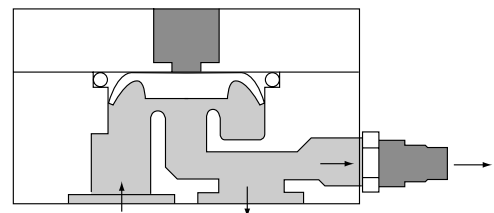
#### Actuator Pressurized

Pressure at supply port presses edge of diaphragm to ring, allowing air flow around and under ring. Air flows into piston port of actuator, compressing springs. Spring side air exhausts out vent to atmosphere.



#### Actuator Exhausted

Supply pressure is released and springs push on piston to force air out piston port. Pressure forces diaphragm up, covering supply port and revealing spring port. Air flows into spring port, allowing clean air in instead of contaminated air from the environment.



### Maintenance Instructions

#### Trouble Shooting the APS2

Actuator will not cycle.

1. Check for proper orientation of APS2.
2. Check for pinched diaphragm.
3. Check for plugged exhaust port.

Air leaks through breather exhaust when actuator is held open.

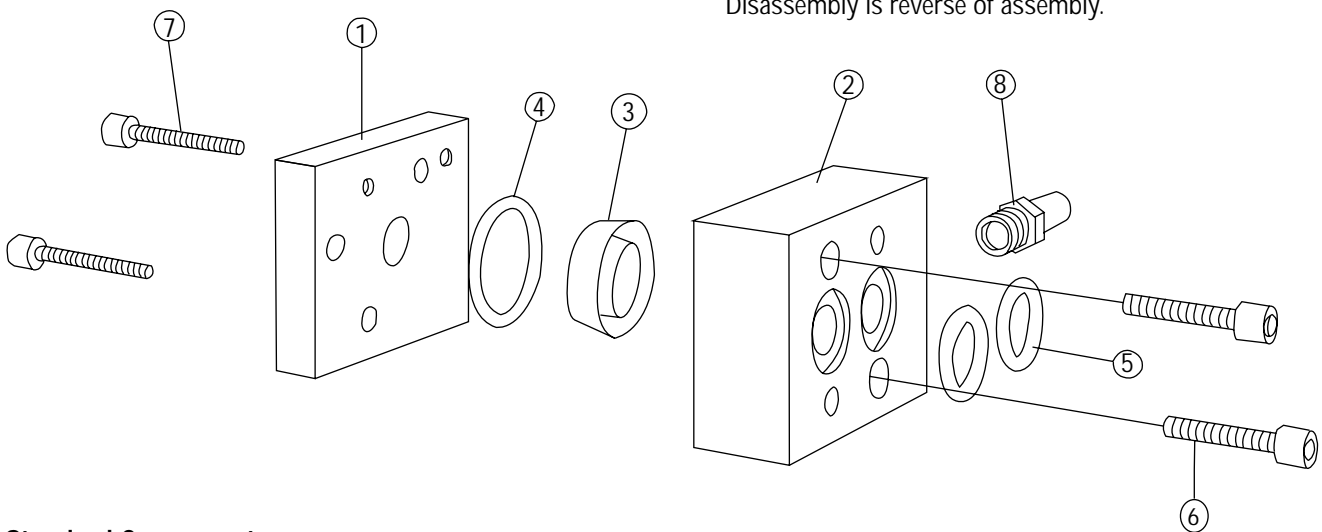
1. Check for pinched diaphragm.
2. Check for diaphragm wear. Diaphragm should be flexible with no tears.
3. Increase supply air pressure.

### Assembly

1. Hold upper housing (2) with actuator ports side down. Place large o-ring (4) into o-ring groove of lower housing.
2. Place diaphragm (3) into center of bore of lower housing. (See exploded view for diaphragm orientation.)
3. Aligning pin in upper housing (1), place upper housing on lower housing.
4. Fasten housing together with M5-.8 x 25 mm SHCS (6) from lower housing side.
5. Attach breather vent (8) to lower housing, using a sealant.
6. Place small o-rings (5) into o-ring grooves of lower housing.
7. Mount to actuator with M5-.8 x 35mm SHCS (7).

### Disassembly

Disassembly is reverse of assembly.



### Standard Components

Part #	Description	Materials	Qty.	P/N
1	Upper Housing	Aluminum	1	M610064
2	Lower Housing	Aluminum	1	M610063
3	Diaphragm	Polyurethane	1	
4	O-Ring	Nitrile	1	106073
5	O-Ring	Nitrile	2	105775
6	M5-.8 x 25mm SHCS	Steel	2	
7	M5-.8 x 35mm SHCS	Steel	2	106075
8	Breather Vent	Bronze	1	106200