1. Introduction

The Triac Controls LV-1 lock-up valve is an excellent choice for fail-in-place applications when air supply drops below acceptable pressure. The LV-1 can be utilized to maintain valve or damper position when properly connected to Triac pneumatic actuators.

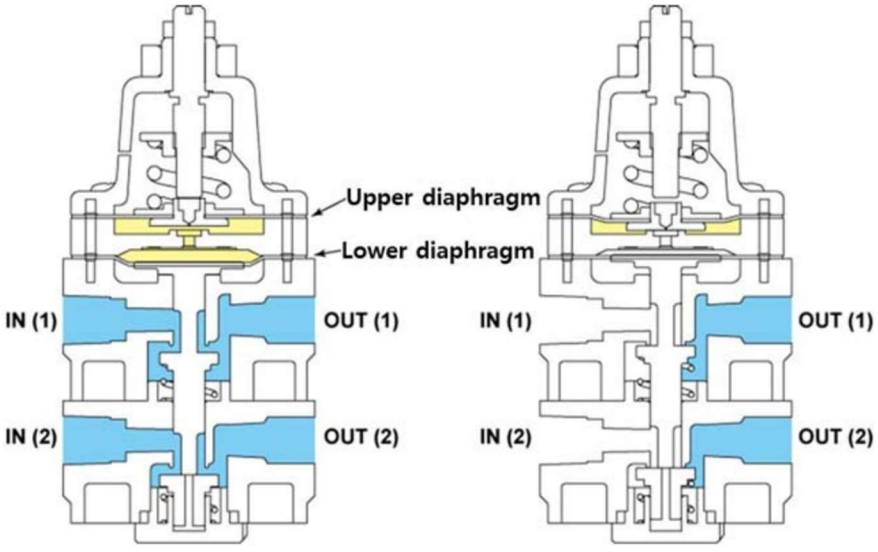
2. Specifications

Max. Supply/Output Pressure	145 psig
Set Pressure Range	10 – 100 psig
Max. Signal Pressure	100 psig
Flow Capacity (Cv)	0.9
Operating Temperature Range	-4°F to 158°F
Pneumatic Connections	1/4 NPT
Hysteresis	1.5 PSIG
Material	Diecast Aluminum
Weight	1.8 lb

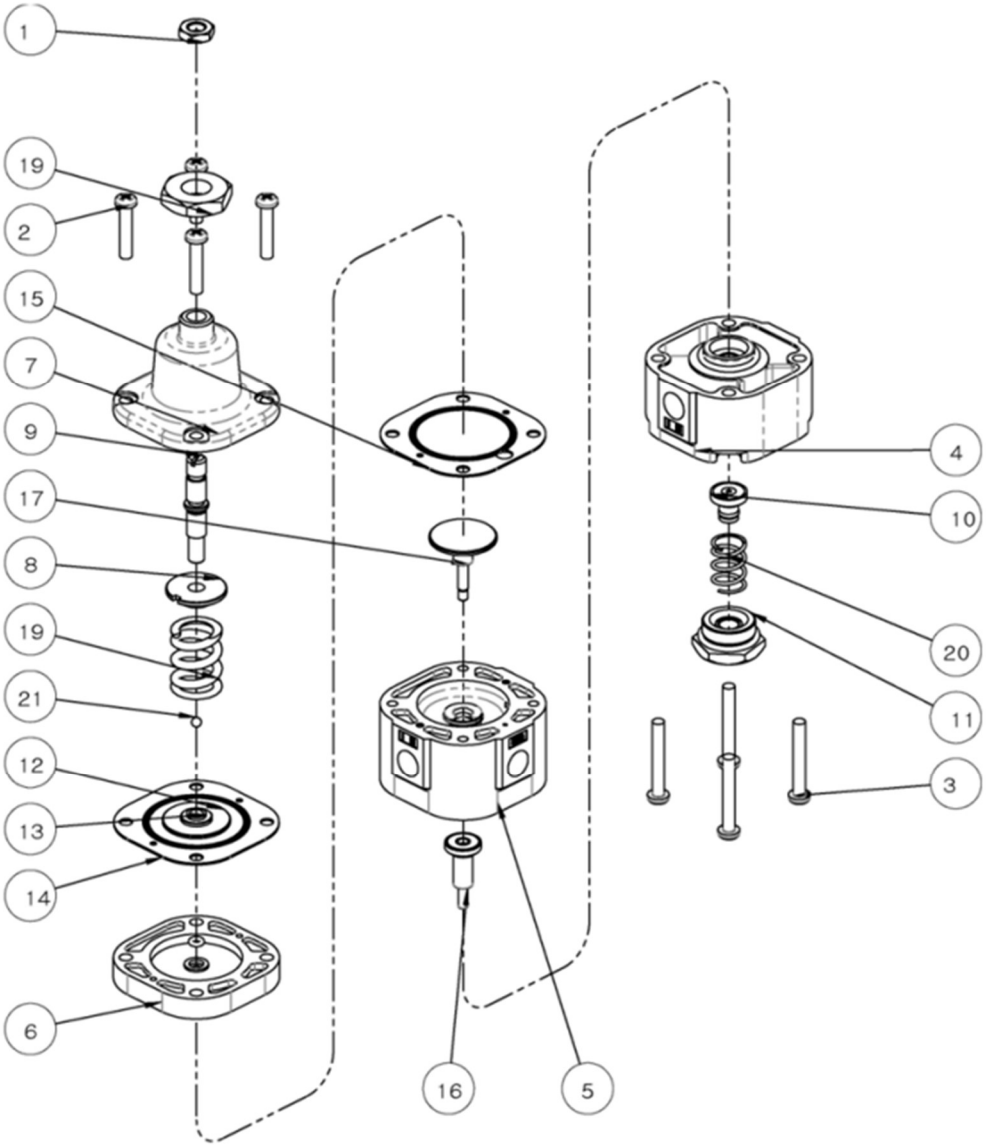
3. Principle of Operation

When the air pressure on the signal port is stronger than the force of the adjustment spring, the upper diaphragm opens, and the signal air pushes on the lower diaphragm, moving the internal spool down and opening the pathway between the IN and OUT ports.

When the air pressure on the signal port is weaker than the force of the adjustment spring, the upper diaphragm blocks off the signal air to the lower diaphragm, and the internal spool is pushed back up by the return spring, blocking the pathway between the IN and OUT ports, and allowing the OUT pressure to be maintained.



4. Parts

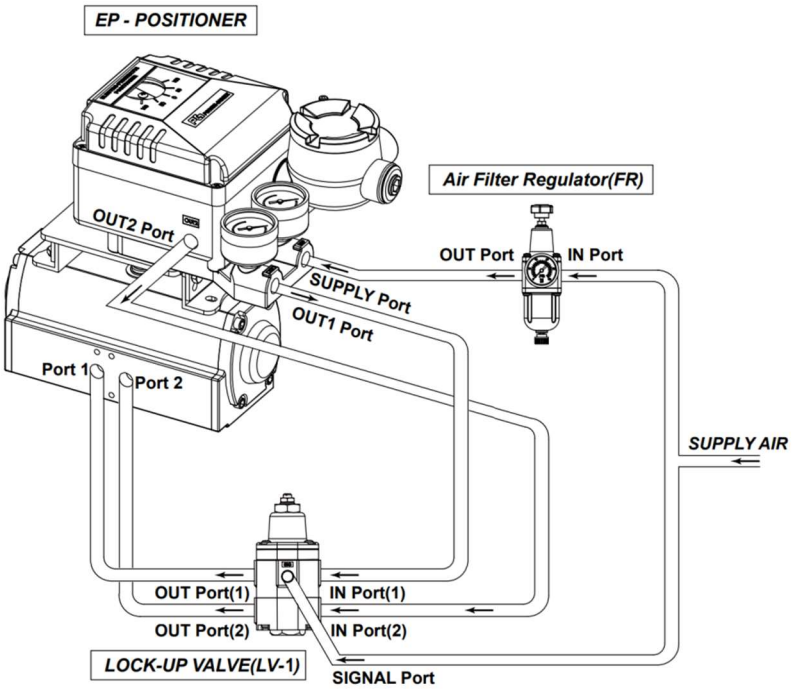


No.	Description
1	Lock Nut
2	M5 x 25 Screw
3	M5 x 35 Screw
4	Body B
5	Body A
6	Exhaust Ring
7	Cover
8	Spring Seat
9	Adjust Screw
10	Disk Seat A
11	Plug
12	Diaphragm Ring 1
13	Diaphragm Ring 2
14	Upper Diaphragm
15	Lower Diaphragm
16	Disk Seat B
17	Spool Shaft
18	Mounting Nut
19	Adjust Spring
20	Return Spring
21	⌀4 Ball

5. Connection

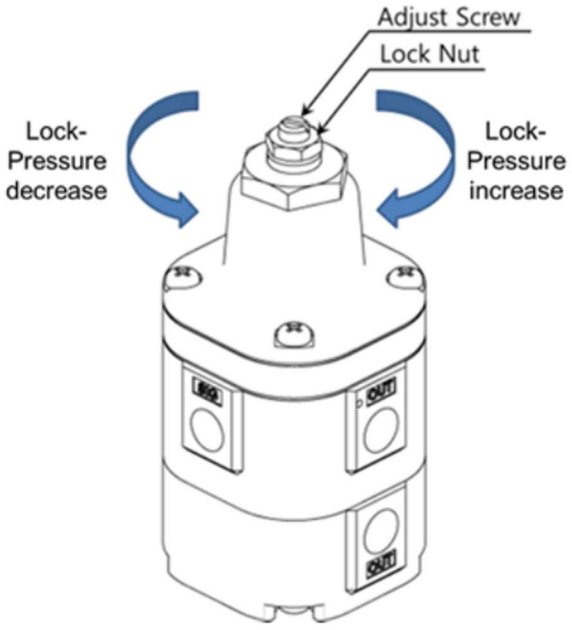
Air connections are 1/4 NPT.

1. Connect supply air pressure to the signal port.
2. Connect actuator air connections through the LV-1 lock-up valve.
3. If using only single actuator air connection, plug unused ports on LV-1 lock-up valve.

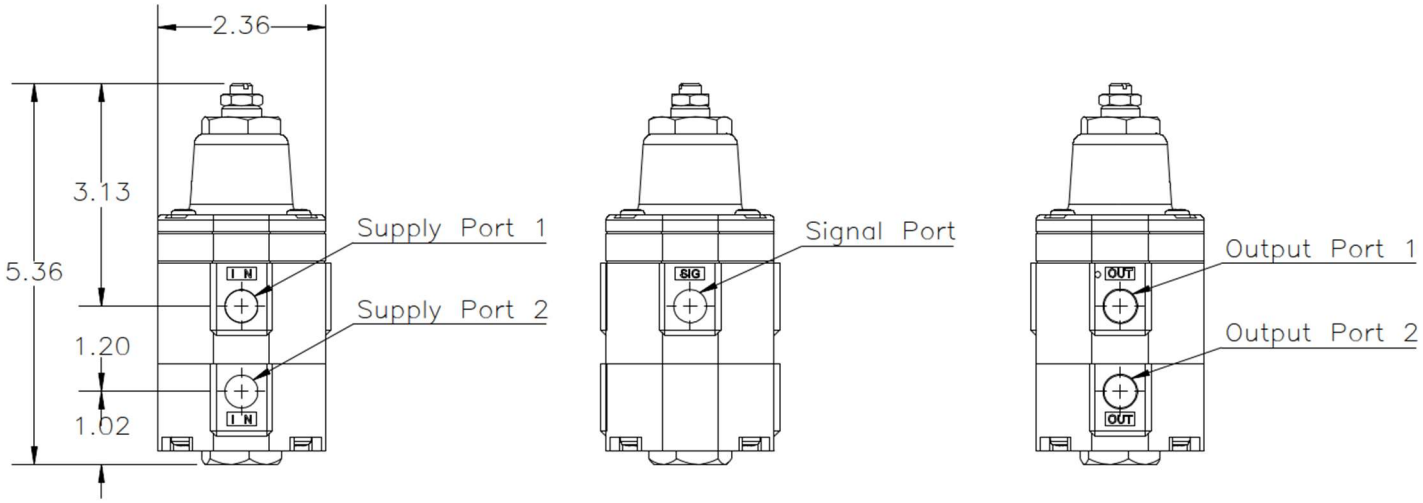


6. Adjustment

1. Set supply port air to the desired pressure for the lock-up valve to operate.
2. Loosen lock nut.
3. Turn adjust screw to change the setpoint.
   - If there is air flow through the IN and OUT ports, turn adjust screw counterclockwise to decrease the setpoint until air flow is shut off.
   - If there is no air flow through the IN and OUT ports, turn adjust screw clockwise to increase the setpoint until air flow is opened.
4. Change supply air pressure to confirm proper function of the lock-up valve.
5. Retighten lock nut.



7. Dimensions



A-T Controls product, when properly selected, is designed to perform its intended function safely during its useful life. However, the purchaser or user of A-T Controls products should be aware that A-T Controls products might be used in numerous applications under a wide variety of industrial service conditions. Although A-T Controls can provide general guidelines, it cannot provide specific data and warnings for all possible applications. The purchaser / user must therefore assume the ultimate responsibility for the proper sizing and selection, installation, operation, and maintenance of A-T Controls products. The user should read and understand the installation operation maintenance (IOM) instructions included with the product and train its employees and contractors in the safe use of A-T Controls products in connection with the specific application.

While the information and specifications contained in this literature are believed to be accurate, they are supplied for informative purposes only. Because A-T Controls is continually improving and upgrading its product design, the specifications, dimensions and information contained in this literature are subject to change without notice. Should any question arise concerning these specifications, the purchaser/user should contact A-T Controls.

For product specifications go to http://download.a-tcontrols.com/

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