

Positioning Relay Mounting Kit for Flowrite™ AP 599 Series 12-inch Pneumatic Valve Actuators

Product Description

This kit contains the RL 147 Positioning Relay and the parts needed to field mount the relay on the Flowrite AP 599 Series 12-inch Pneumatic Valve Actuators.

Product Number

599-00423

Required Tools

- 9/16-inch socket wrench
- Medium flat-blade screwdriver
- 30 mm open-end wrench

Prerequisites

- Clean, dry, oil-free air supply
- Disconnect the air line to the actuator.
- Determine the valve stroke. It will either be 3/4 or 1-1/2 inches (20 mm or 40 mm)

Installation

1. Select two screws in the actuator upper housing which are not directly over the yoke; use a 9/16-inch socket wrench to remove them. Attach the mounting bracket (1) to the upper housing of the actuator using the two housing screws.
2. Attach the relay to the mounting bracket with two captive screws furnished on the relay body. For access to one of the screws, you must loosen the cover screw on the relay to remove the cover.
3. Use a 30 mm open-end wrench to loosen the jam nut on the actuator stem and slip the spring arm (7) between the jam nut and the stem nut.

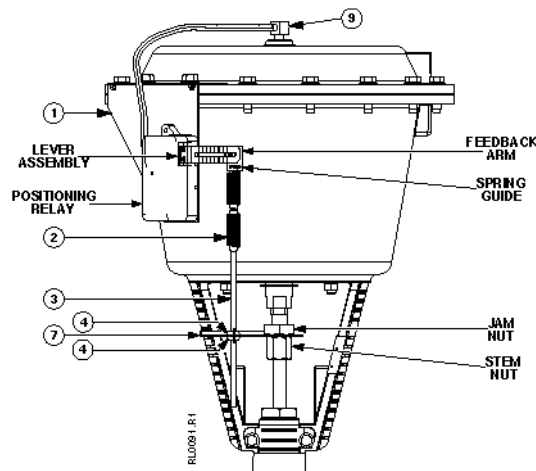


Figure 1. Mounting Parts.

Item	Description	Q'ty	Item	Description	Q'ty
1	Mounting bracket	1	4	Wing nut	2
2	Feedback spring	2	7	Spring arm	1
3	Adjusting screw	1	9	90° Elbow connector	1

Installation, Continued

4. Position the spring arm (7) on the valve stem so the slot for the adjusting screw (3) is in line with the spring guide. Lock the spring arm in position between the jam nut and the stem nut.
5. Do one of the following:
 - If the valve has a 3/4-inch (20 mm) stroke, use one feedback spring.
 - If the valve has a 1-1/2 inch (40 mm) stroke, use two feedback springs.
6. Connect the feedback spring(s) (2) between the spring guide and the adjusting screw (3). If more than one feedback spring is required, connect them in a series end to end.
7. Thread one wing nut (4) onto the adjusting screw (3). See *Figure 2*.

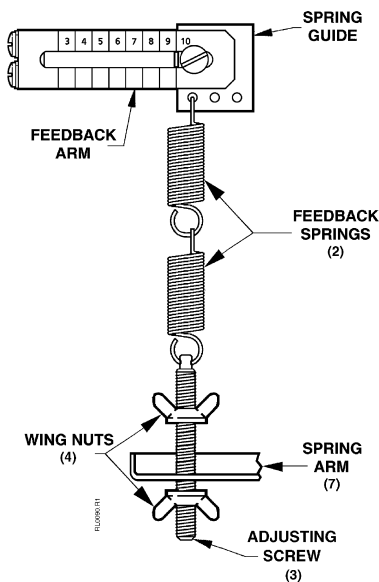


Figure 2. Attaching the Adjusting Screw to the Spring Arm.

8. Slide the adjusting screw through the spring arm. Thread the remaining wing nut onto the adjusting screw. Tighten the wing nuts so that there is no slack in the spring, but do not stretch the spring.

NOTE: Adjust the spring arm so that the adjusting screw and the feedback spring are parallel to the actuator shaft.

9. Attach the connector (9) to the actuator. See *Figure 1*.
10. Make pneumatic piping connections to the actuator and relay. The "S" Port is the air supply port. The "M" Port goes to the connector on the actuator. The "T" Port is the signal from the controller. See *Figure 3*.
11. Place the calibration label on the cover as shown in *Figure 3*. Mark for reference. (Optional) Attach the relay cover if you are not calibrating immediately.
12. Calibrate the relay by following the instructions included with the positioning relay.

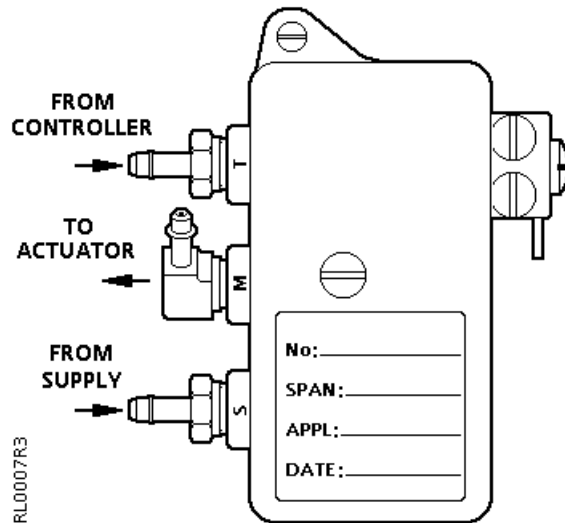


Figure 3. Positioning Relay Ports.

Reference

Technical Instructions

Positioning Relay
155-038P25

Installation Instructions

Positioning Relay Calibration
129-125

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