



V-9502-76 Positioner Kit for V-400/V-500 Pneumatic Actuators Mounted to VG7000 Series Bronze Valves

Note: The positioner spring must be ordered separately. Refer to Table 1 for appropriate code number.

Kit Includes (See Figure 1)

- one positioner with cover and mounting bracket
- one feedback arm assembly — 1/2 in. diameter (For V-400 Actuator)
- one feedback arm assembly — 3/8 in. diameter (For V-500 Actuator)
- two M5 x 20 mm screws
- two M5 nuts

Tools Required

- medium blade screwdriver
- 3/8 in. (10 mm) open end or adjustable wrench

Table 1: Accessories

Description	Code Number
Pilot Positioner Springs:	
5/16 in. Stroke for 1/2 or 3/4 in. Valves	V-9502-8100
1/2 in. Stroke for 1 or 1-1/4 in. Valves	V-9502-8102
3/4 in. Stroke for 1-1/2 or 2 in. Valves	V-9502-8106

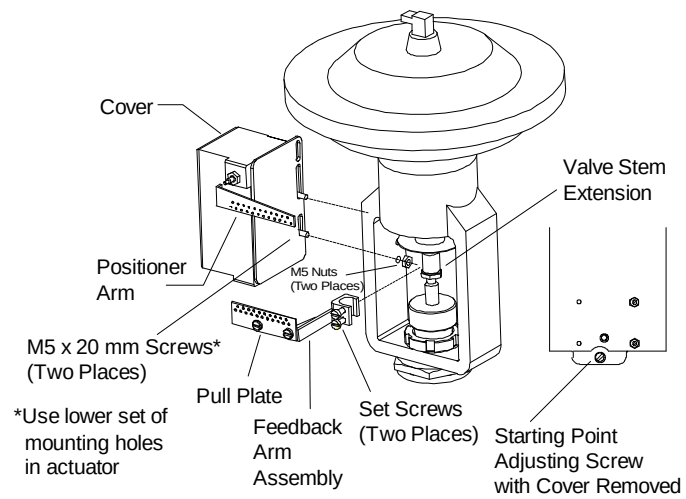


Figure 1: V-400 Positioner Mounting

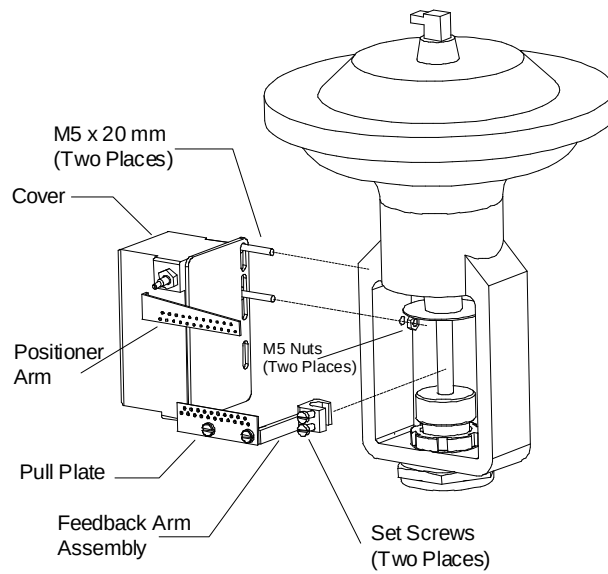


Figure 2: V-500 Positioner Mounting

Mounting Procedures

1. On the V-400, using the two M5 x 20 mm screws and the two M5 nuts, mount the positioner and mounting bracket through the two lower slots and into the lower set of mounting holes on the actuator. Skip to Step 3.
2. On the V-500, using the two M5 x 20 mm screws and the two M5 nuts, mount the positioner and mounting bracket through the two upper slots and into the two mounting holes on the actuator.
3. Attach the positioner spring to the positioner arm (see *Adjustments section*).
4. On the V-400 using the two set screws, attach the 1/2 in. diameter feedback arm assembly, finger tight, to the valve stem extension. The pull plate should be parallel and even with the positioner arm. Skip to Step 6.
5. On the V-500 using the two set screws, attach the 3/8 in. diameter feedback arm assembly, finger tight, to the valve stem. The pull plate should be parallel and even with the positioner arm.
6. Attach the other end of the positioner spring to the pull plate.
7. Slide the feedback arm assembly until the spring is just snug and tighten the set screws with a screwdriver.
8. Attach the air tube from the actuator to the positioner.

Adjustments

The holes in the positioner arm determine the operating span. The hole nearest the pilot end represents an operating span of 3 psi (21 kPa), and the hole furthest from the pilot end represents an operating span of 13 psi (91 kPa).

The starting point adjustment is the brass screw located on the positioner (under the cover, refer to Figure 1). Turning the screw Counterclockwise (CCW) will increase the start point, turning it Clockwise (CW) will decrease the starting point.

Note: The other three screws on the positioner are factory settings and should not be adjusted. When adjusting the positioner starting point, keep in mind that the sum of the starting pressure and the span must not exceed the supply pressure. If the sum exceeds the supply pressure, the actuator will not move over its full stroke.

Operational Checkout

To check the operation of the positioner, proceed as follows:

1. Apply 20 psig (140 kPa) to the supply "S" port.
2. Apply variable air (1 to 20 psig) to the pilot "P" port.
3. Connect the output "O" port of the positioner to the actuator connection.
4. Vary the pressure to the pilot "P" port. The actuator should begin to stroke when the pilot pressure reaches the starting point. The actuator should be fully stroked when the pilot pressure reaches the high end of the operating span.