

Instructions for Setting Electronic-Actuator Position Sensor (NPN Normally Closed)

This instruction is for the installation and setting of an NPN normally closed electronic-actuator position sensor on DP, ALD3, and ALD6 series diaphragm valves ordered with a -24264 designator.

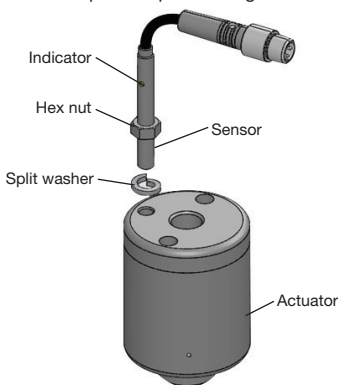
DP Series — NPN Normally Closed Sensor Mounted to a Normally Closed Actuator/Valve Assembly

⚠ WARNING

Before installing the sensor, to avoid personal injury, you must:

- **Depressurize the system**
- **Cycle the valve**
- **Purge the system to remove any residual system media left in the valve**

1. Ensure the valve is in the open position by applying 100 +/- 3 psig (6.8 +/- 0.20 bar) to the **actuator**.
2. Thread the **hex nut** onto the sensor to a position just below the **indicator** on the **sensor**.
3. Place the **split washer** onto the sensor below the hex nut and carefully thread the sensor clockwise until the sensor contacts the piston.
4. Connect the sensor to 24 V (dc).
Note: The sensor will indicate an open circuit (indicator off) just prior to contact with the piston.
5. Turn the sensor counterclockwise 1/16 to 1/8 turn and verify the sensor maintains an open circuit (indicator off).
Note: If an open circuit is not maintained (indicator comes on), thread the sensor clockwise until the indicator turns off. Ensure the sensor does not contact the piston.
6. Pull up slightly on the sensor without allowing the sensor to rotate. Using a 5/16 in. wrench, carefully tighten the hex nut to 10 in-lb (1.1 N-m).
Note: The indicator should remain off and the split washer appear flat.
7. Cycle the actuator 3 to 5 times at an actuator pressure of 100 +/- 3 psig (6.8 +/- 0.20 bar). Verify the indicator turns on and off.
8. Repeat the cycling at an actuator pressure of 60 +/- 3 psig (4.1 +/- 0.20 bar). Verify the indicator turns on and off.
9. If the indicator does not turn on and off properly, loosen the sensor and repeat steps 3 through 9.



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ALD3 and ALD6 Series — NPN Normally Closed Sensor Mounted to a Normally Closed Actuator/Valve Assembly

⚠ WARNING

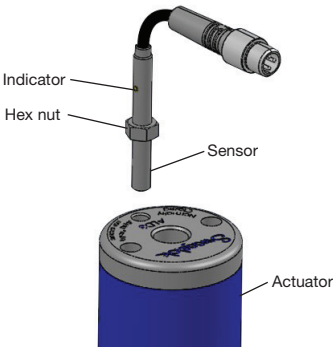
Before installing the sensor, to avoid personal injury, you must:

- Depressurize the system
- Cycle the valve
- Purge the system to remove any residual system media left in the valve

1. Ensure the valve is in the open position by applying 90 +/- 3 psig (6.2 +/- 0.20 bar) to the **actuator**.
2. Thread the **hex nut** onto the **sensor** to a position just below the **indicator** on the sensor.
3. Carefully thread the sensor clockwise until the sensor contacts the piston.
4. Connect the sensor to 24 V (dc).
5. Turn the sensor counterclockwise until the indicator just turns on. Rotate the sensor back and forth to find this position.
6. Turn the sensor clockwise 1/16 to 1/8 turn and verify the sensor maintains an open circuit (indicator off). Ensure the sensor does not contact the piston.
7. Pull up slightly on the sensor without allowing the sensor to rotate. Using a 5/16 in. wrench, carefully tighten the hex nut to 10 in-lb (1.1 N·m).

Note: The indicator should remain off.

8. Cycle the actuator 3 to 5 times at an actuator pressure of 90 +/- 3 psig (6.2 +/- 0.20 bar). Verify the indicator turns on and off.
9. Repeat the cycling at an actuator pressure of 50 +/- 3 psig (3.4 +/- 0.20 bar). Verify the indicator turns on and off.
10. If the indicator does not turn on and off properly, loosen the sensor and repeat steps 3 through 9.



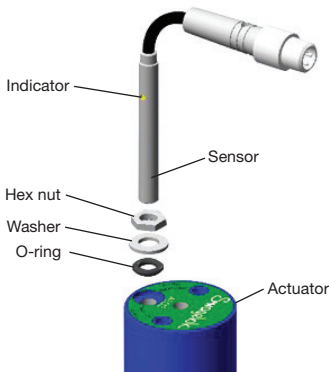
ALD3 and ALD6 Series — NPN Normally Closed Sensor Mounted to a Normally Open Actuator/Valve Assembly

⚠ WARNING

Before installing the sensor, to avoid personal injury, you must:

- Depressurize the system
- Cycle the valve
- Purge the system to remove any residual system media left in the valve

1. Ensure the valve is in the open position (no actuation pressure applied).
2. Thread the **hex nut** onto the **sensor** to a position just below the **indicator** on the sensor.
3. Place the **washer** and **O-ring** onto the sensor below the hex nut.
4. Carefully thread the sensor clockwise until the sensor contacts the piston.
5. Connect the sensor to 24 V (dc).
6. Turn the sensor counterclockwise until the indicator just turns on. Rotate the sensor back and forth to find this position.
7. Turn the sensor clockwise 1/16 to 1/8 turn and verify the sensor maintains an open circuit (indicator off). Ensure the sensor does not contact the piston.
8. Pull up slightly on the sensor without allowing the sensor to rotate. Using a 5/16 in. wrench, carefully tighten the hex nut to 10 in·lb (1.1 N·m).
Note: The indicator should remain off.
9. Cycle the actuator 3 to 5 times at an actuator pressure of 90 +/- 3 psig (6.2 +/- 0.20 bar). Verify the indicator turns on and off.
10. Repeat the cycling at an actuator pressure of 70 +/- 3 psig (4.8 +/- 0.20 bar). Verify the indicator turns on and off.
11. If the indicator does not turn on and off properly, loosen the sensor and repeat steps 3 through 9.



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