Gold Ring TM Solenoid Valve Installation and Maintenance Instructions



Valves With Open Frame or D.I.N. Type Connectors

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Parker Hannifin Corporation Fluid Control Division

Warnings

- 1. Check adhesive data label for correct catalog number, pressure, voltage and service. Do not install if unsuitable.
- 2. If solenoid is disassembled, when reassembled it is mandatory all parts be properly installed, they are an important part for the magnetic circuit.
- 3. For protection and proper operation of the solenoid valve, install a strainer or filter suitable for the service involved as close to the valve inlet as possible.
- 4. Solenoid valves require periodic cleaning and inspection depending on the service. This should be done at least once every 12 months or every 500,000 cycles, whichever occurs first.
- 5. Turn off electrical power supply and line pressure to the valve. Bleed trapped pressure from the lines before inspecting, cleaning, servicing, or repairing the valve.

Description:

Applies to all valves with open frame type coils with spade, screw or leaded terminations and coils with D.I.N. type connectors.

D.I.N. type coils meet DIN 43 650 and ISO 4400 specifications. When supplied with an optional DIN connector kit, these valves are suitable for NEMA 4, watertight, locations.

Note: In order to meet NEMA 4 requirements, the profile gasket, included in the connector kit, must be installed.

Operation:

For specific valve operation, refer to the valve I & M Instructions.

Installation:

1. Application

Refer to Parker Gold Ring ™ catalog for application information.

2. Positioning

Unit valves may be mounted in any position. It is recommended that unit valves be mounted vertical and upright to prevent accumulation of debris in plunger tube.

3. Piping

Connect piping to valve according to markings on valve body. Apply pipe compound or sealing material sparingly to male pipe threads only. If applied to valve thread, it may enter valve and cause operational difficulties. Pipe strain should be avoided by proper sup- port and alignment of piping. Do not use valve as a lever when tightening pipe.

4. Wiring

Wiring must comply with local and national electrical codes. Coils supplied with spade or screw terminals should be connected to the electrical system by means of suitable insulated connectors. Ensure there is adequate clearance between the coil terminals and any current conducting materials.

DIN type coils should be connected to the electrical system by means of an approved DIN type connector. These connectors can be obtained by ordering Parker connector kits.

5. Solenoid Temperature

Standard catalog valves are supplied with coils designed for continuous duty service. When the solenoid is energized for a long period, the solenoid enclosure becomes hot and can be touched with the bare hand for only an instant. This is a safe operating temperature. Any excessive heating will be indicated by the smoke and odor of burning coil insulation. Ambient and fluid temperature limitations for a solenoid valve depend on the solenoid and the valve materials.

Maintenance:

1. Cleaning

Periodic cleaning of solenoid valve is recommended. Frequency warn depend on fluid and service, but should never be less than every 12 months or 500,000 cycles whichever occurs first. In general, if the voltage to the coil is correct, sluggish operation, excessive leakage or noise will indicate cleaning or repair is required. Clean valve filter or strainer when cleaning valve.

2. Preventative Maintenance

- a. Keep media flowing through valve as free from dirt and foreign matter as possible.
- b. While not in service, operate valve at least once a month to insure proper opening and closing.
- c. Periodic inspection (depending on media and service conditions) of internal valve parts for damage or excessive wear is recommended. Inspect at least every 12 months or 500,000 cycles, whichever occurs first. Clean valve filter or strainer when cleaning valve.

3. Troubleshooting Guide

a. Faulty Controls Circuit

Check the electrical system by energizing the solenoid. A metallic click signifies solenoid is operating. Absence of click indicates loss of power supply. Check for loose or blown out fuses, open-circuit or grounded coil, broken lead wires.

b. Burned-Out Coil

Check for open-circuited coil. Replace coil if necessary.

c. Low Voltage

Check voltage across the coil lead. Voltage must be at least 85% of adhesive data label rating.

4. Coil Replacement

Tum off electrical power supply and disconnect coil lead wires. Refer to exploded view.

- a. Remove gold ring by inserting a 3/16" wide screwdriver in the curved slot. While holding the gold ring firmly against the unit solenoid gently twist screwdriver counterclockwise. Gold ring will open. Lift off unit solenoid. Valves with DIN type coils are supplied with Erings which slide into the enclosure tube retaining groove.
- b. Replace old coil with new coil of correct watt, voltage and class.
- c. Reassemble by sliding new unit solenoid over plunger tube assembly. Press gold ring against adhesive data label to compress antivibration fingers. Squeeze the gold ring firmly together. Reconnect your electrical circuit.

Note: "This product may contain chemicals known to the state of California to cause cancer, birth de-fects, or other reproductive harm.

This warning is given in compliance with California Proposition 65, as detectable amounts of chemicals subject to Proposition 65 may be contained in this produce".









