INSTALLATION AND MAINTENANCE INSTRUCTIONS

2-WAY DIRECT-ACTING SOLENOID VALVES NORMALLY OPEN OPERATION – 3/8, 1/2 AND 3/4 NPT

BULLETIN 8030

ASCO.

Form No. V6213

DESCRIPTION

Bulletin 8030 valves are 2-way, normally open, direct-acting solenoid valves. Valves are of rugged forged brass construction and are provided with a General Purpose, NEMA Type 1 Solenoid Enclosure.

OPERATION

Normally Open: Valve is open when solenoid is de-energized. Valve closes when solenoid is energized.

IMPORTANT: Maximum operating pressure differential is 15 psi water or steam.

INSTALLATION

Check nameplate for correct catalog number, pressure, voltage and service.

TEMPERATURE LIMITATIONS

Maximum valve ambient temperature 120°F. Maximum valve fluid temperature 250°F. For higher ambient and fluid temperature limitations, consult factory.

POSITIONING

Valve body must be mounted in a horizontal position with solenoid upright.

PIPING

Connect piping according to markings on valve body. CAUTION: This valve is equipped with ethylene propylene elastomers which can be attacked by oils and greases. Wipe the pipe threads clean of cutting oils. Apply ribbon type TEFLON* thread sealant to male threads, starting one thread back to allow initial engagement. Pipe strain on valve body should be avoided by proper support and alignment of piping. When tightening connections, do not use valve body or solenoid as a lever. Wrenches applied to valve body or piping are to be located as close as possible to connection point.

IMPORTANT: For the protection of the solenoid valve, install a strainer or filter suitable for the service involved in the inlet side as close to the valve as possible. Periodic cleaning is required depending on service conditions. See Bulletins 8600, 8601 and 8602 for strainers.

WIRING

Wiring must comply with Local and National Electrical Codes. Housings are provided with a 7/8 diameter hole to accommodate 1/2 inch conduit. The general purpose solenoid enclosure may be rotated to facilitate wiring by removing the retaining clip. CAUTION: When metal retaining clip disengages, it will spring upward. Rotate enclosure to desired position. Replace retaining clip before operating.

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 hand only for an instant. This is a safe operating temperature. Any excessive heating will be indicated by the smoke and odor of burning coil insulation.

MAINTENANCE

WARNING: Turn off electrical power supply and depressurize valve before making repairs. It is not necessary to remove the valve from the pipe line for repairs.

CLEANING

A periodic cleaning of all solenoid valves is desirable. The time between cleanings will vary depending on medium and service conditions. In general, if the voltage to the coil is correct, sluggish valve operation, excessive noise or leakage will indicate that cleaning is required. Clean valve strainer or filter when cleaning solenoid valve.

PREVENTIVE MAINTENANCE

1. Keep the medium flowing through the valve as free from dirt and foreign material as possible.
2. While in service, operate the valve at least once a month to insure proper opening and closing.
3. Periodic inspection (depending on medium and service conditions) of internal valve parts for damage or excessive wear is recommended. Thoroughly clean all parts. Replace any parts that are worn or damaged.

IMPROPER OPERATION

1. **Faulty Control Circuit:** Check the electrical system by energizing the solenoid. A metallic click signifies the solenoid is operating. Absence of the click indicates loss of power supply. Check for loose or blown-out fuses, open-circuited or grounded coil, broken lead wires or splice connections.
2. **Burned-Out Coil:** Check for open-circuited coil. Replace coil if necessary.
3. **Low Voltage:** Check voltage across the coil leads. Voltage must be at least 85% of nameplate rating.
4. **Incorrect Pressure:** Check valve pressure. Pressure to valve must be within range specified on nameplate.
5. **Excessive Leakage:** Disassemble valve and clean all parts. Replace worn or damaged parts with a complete Spare Parts Kit for best results.

COIL REPLACEMENT (Refer to Figure 1.)

Turn off electrical power supply and disconnect coil lead wires. Proceed in the following manner:

1. Remove retaining clip, spacer, nameplate and housing cover. CAUTION: When metal retaining clip disengages, it will spring upward.
2. Slip yoke containing coil, sleeves and insulating washers (2) off the solenoid base sub-assembly. NOTE: Insulating washers are omitted when a molded coil is used.
3. Slip coil, sleeves and insulating washers from yoke.
4. Reassemble in reverse order of disassembly paying careful attention to exploded view provided for identification and placement of parts.

CAUTION: Solenoid must be fully reassembled as the housing and internal parts are part of and complete the magnetic circuit. Place an insulating washer at each end of coil, if required.

VALVE DISASSEMBLY (Refer to Figure 1.)

Depressurize valve and turn off electrical power supply. If rigid conduit is used, it may be necessary to disconnect it. Proceed in the following manner:

1. Disassemble valve in an orderly fashion paying careful attention to exploded view provided for identification and placement of parts.
2. Remove retaining clip and slip the entire solenoid enclosure off the solenoid base sub-assembly. CAUTION: When metal retaining clip disengages, it will spring upward.
3. Unscrew solenoid base sub-assembly using special wrench adapter provided in Spare Parts Kit (Wrench Adapter Order No. 102-649-1).
4. Remove core assembly, plugnut assembly and plugnut gasket.
5. Unscrew adapter from valve body.
6. Remove stem assembly with body gasket from valve body cavity.
7. All parts are now accessible for cleaning or replacement. Replace worn or damaged parts with a complete Spare Parts Kit for best results.

VALVE REASSEMBLY

1. Reassemble in reverse order of disassembly paying careful attention to exploded view provided for identification and placement of parts.
2. Lubricate plugnut gasket and body gasket on stem assembly with DOW CORNING® 111 compound or an equivalent high-grade silicone grease.
3. Position stem assembly with body gasket in valve body cavity.
4. Install adapter and torque adapter to 175 ± 25 inch-pounds [19,8 ± 2,8 newton meters].
5. Replace plugnut assembly, plugnut gasket and core assembly.
6. Replace solenoid base sub-assembly and torque it to 175 ± 25 inch-pounds [19,8 ± 2,8 newton meters].
7. Replace solenoid enclosure, nameplate, spacer and retaining clip.
8. After maintenance, operate the valve a few times to be sure of proper opening and closing.

SPARE PARTS KITS

Spare Parts Kits and Coils are available for ASCO valves.
Parts marked with an asterisk (*) are supplied in Spare Parts Kits.

ORDERING INFORMATION FOR SPARE PARTS KITS
When Ordering Spare Parts Kits or Coils, Specify Valve Catalog Number, Serial Number and Voltage.

*DuPont's registered trademark for its TFE-fluorocarbon resin.

ASCO Valves

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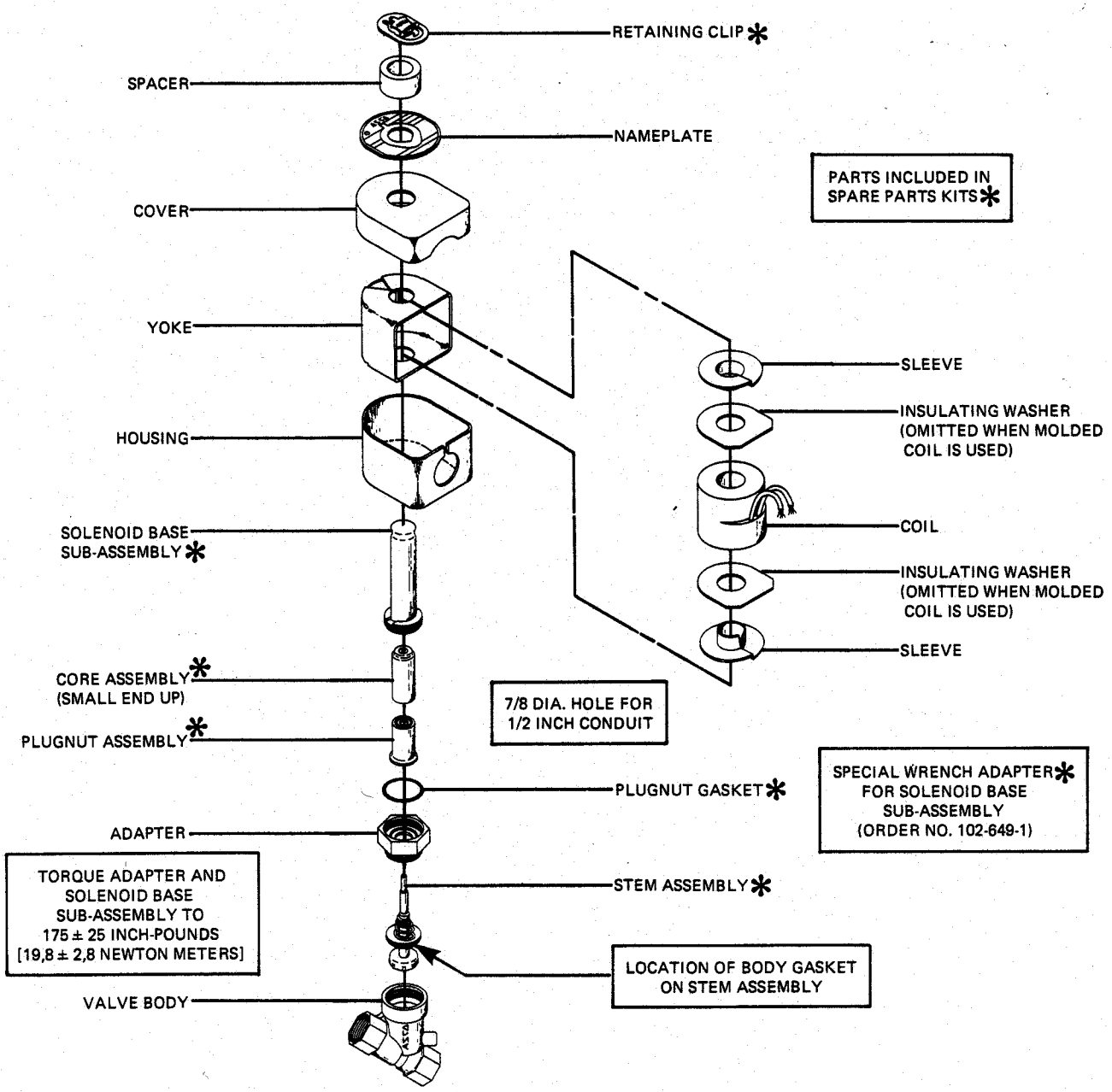

Figure 1.

Bulletin 8030

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