Installation & Maintenance Instructions

2–WAY DIRECT–ACTING SOLENOID VALVES
NORMALLY CLOSED OPERATION — 3/8″ OR 1/2″ NPT
LOW PRESSURE SERVICE — BRASS OR STAINLESS STEEL CONSTRUCTION

SERIES
8030
8031

Form No.V5304R3

NOTICE: See separate solenoid installation and maintenance instructions for information on: Wiring, Solenoid Temperature, Cause of Improper Operation, Coil or Solenoid Replacement.

DESCRIPTION

Series 8030 valves are 2–way normally closed direct–acting solenoid valves designed for low pressure service. Valves are made of rugged forged brass or stainless steel. Series 8030 valves are provided with a general purpose solenoid enclosure.
Series EF8030 and 8031 are the same as Series 8030 except they are provided with an explosionproof or explosionproof/
watertight solenoid enclosure.

OPERATION

Normally Closed: Valve is closed when solenoid is de–energized; open when energized.

NOTE: No minimum operating pressure differential required.

Manual Operator (optional feature)

Manual operator allows manual operation when desired or during an electrical power outage. To engage manual operator (open the valve). Turn manual operator stem clockwise. Valve will now be in the same position as when the solenoid is energized. To disengage manual operator, turn stem counterclockwise.

⚠ CAUTION: Stem must be fully turned (rotated) counterclockwise before operating valve electrically.

INSTALLATION

Check nameplate for correct catalog number, pressure, voltage, frequency, and service. Never apply incompatible fluids or exceed pressure rating of the valve. Installation and valve maintenance to be performed by qualified personnel.

Future Service Considerations

Provision should be made for performing seat leakage, external leakage, and operational tests on the valve with a nonhazardous, noncombustible fluid after disassembly and reassembly.

Temperature Limitations

For maximum valve ambient and fluid temperatures, refer to chart below. Check catalog number prefix and watt rating on nameplate.

Watt Rating	Catalog Number Prefix	Coil Class	Maximum Ambient Temp.	Maximum Fluid Temp.
10.5 or 15.4	FT	F	122°F (50°C)	200°F (93°C)
10.1	None, DF, SF, KF or SC	F	125°F (51.7°C)	
10.1, 10.5 or 15.4	HT, KH, ST or SU	H	140°F (60°C)	
16.1	None, KF, SF or SC	F	125°F (51.7°C)	
	HT, KH, ST or SU	H	140°F (60°C)	
11.2	None or HT	F or H	77°F (25°C)	150°F (65°C)
11.6	None, HT, KF, KH, SC, SF, ST or SU	F or H	104°F (40°C)	
16.8	None or HT	F or H	77°F (25°C)	180°F (82°C)

Positioning

Valve is designed to perform properly when mounted in any position. However, for optimum life and performance, the solenoid should be mounted vertical and upright to reduce the possibility of foreign matter accumulating in the solenoid base sub–assembly area.

Mounting

Refer to Figure 1 for mounting bracket (optional feature) mounting dimensions.

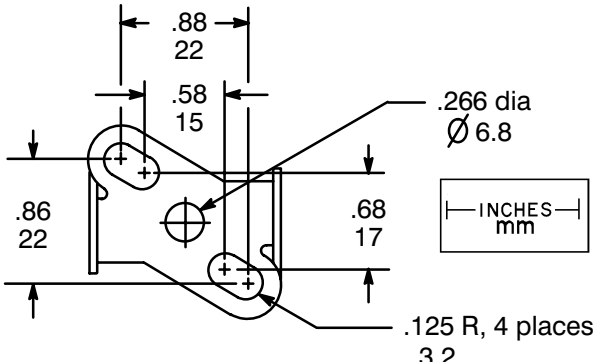

Figure 1. Mounting Bracket Dimensions.

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Piping

Connect piping to valve according to markings on valve body. Apply pipe compound sparingly to male pipe threads only. If applied to valve threads, the compound may enter the valve and cause operational difficulty. Avoid pipe strain by properly supporting and aligning piping. When tightening the pipe, do not use valve or solenoid as a lever. Locate wrenches applied to valve body or piping as close as possible to connection point.

⚠ CAUTION: To protect the solenoid valve, install a strainer or filter suitable for the service involved in the inlet side as close to the valve as possible. Clean periodically depending on service conditions. See ASCO Series 8600, 8601 and 8602 for strainers.

MAINTENANCE

⚠ WARNING: To prevent the possibility of death, serious injury or property damage, turn off electrical power, depressurize valve, and vent fluid to a safe area before servicing the valve.

NOTE: It is not necessary to remove the valve from the pipeline for repairs.

Cleaning

All solenoid valves should be cleaned periodically. The time between cleanings will vary depending on the 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. In the extreme case, faulty valve operation will occur and the valve may fail to open or close. Clean strainer or filter when cleaning the valve.

Preventive Maintenance

- Keep the medium flowing through the valve as free from dirt and foreign material as possible.
- While in service, the valve should be operated at least once a month to insure proper opening and closing.
- Depending on the medium and service conditions, periodic inspection of internal valve parts for damage or excessive wear is recommended. Thoroughly clean all parts. If parts are worn or damaged, install a complete ASCO Rebuild Kit.

Causes of Improper Operation

- **Incorrect Pressure:** Check valve pressure. Pressure to valve must be within range specified on nameplate.
- **Excessive Leakage:** Disassemble valve and clean all parts. If parts are worn or damaged, install a complete ASCO Rebuild Kit.

Valve Disassembly

1. Disassemble valve in an orderly fashion using exploded views for identification and placement of parts.
2. Remove solenoid enclosure. See separate instructions.
3. Unscrew solenoid base sub−assembly from valve body. Then remove body gasket and core assembly with core spring.
4. For normal maintenance, it is not necessary to remove or disassemble the manual operator unless external leakage is evident. If required, remove stem pin and stem with gasket from valve body.
5. All parts are now accessible for cleaning or replacement. If parts are worn or damaged, install a complete ASCO Rebuild Kit.

Valve Reassembly

1. Lubricate all gaskets with DOW CORNING® 111 Compound lubricant or an equivalent high−grade silicone grease.
2. Install body gasket into valve body.
3. If removed, install manual operator stem gasket, stem and stem pin.
4. Install core assembly with core spring into valve body. For 1/2″ NPT valve construction, wide end of core spring in core first, closed end protrudes from top of core.
5. Hand thread solenoid base sub−assembly into valve body. Then torque solenoid base sub−assembly to 175 ± 25 in−lbs [19,8 ± 2,8 Nm].
6. Install solenoid. See separate instructions.

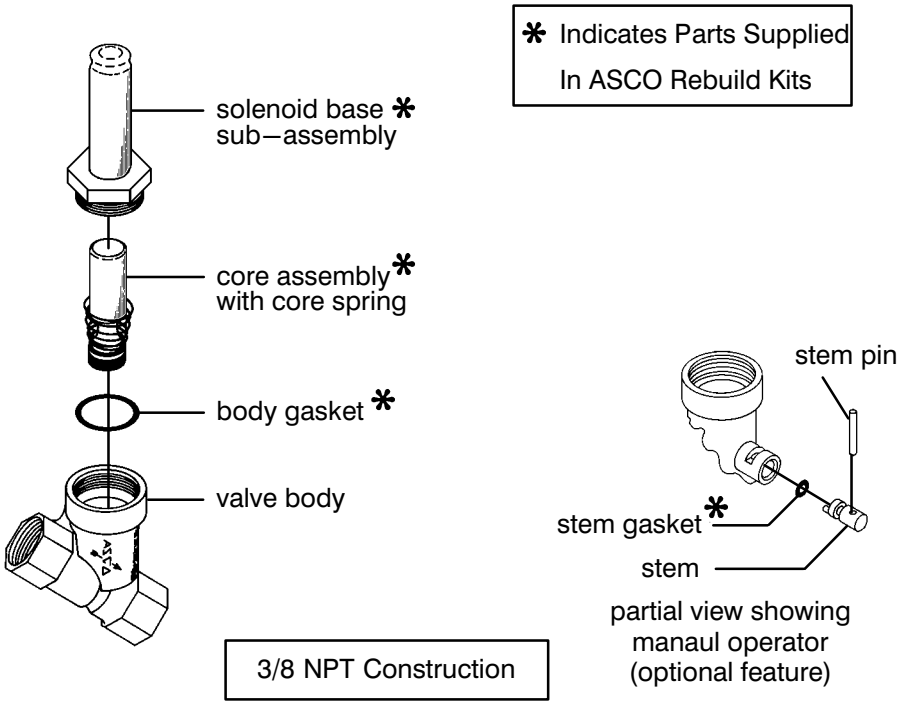
⚠ WARNING: To prevent the possibility of death, serious injury or property damage, check valve for proper operation before returning to service. Also perform internal seat and external leakage tests with a nonhazardous, noncombustible fluid.

7. Restore line pressure and electrical power supply to valve.
8. After maintenance is completed, operate the valve a few times to be sure of proper operation. A metallic *click* signifies the solenoid is operating.

ORDERING INFORMATION FOR ASCO REBUILD KITS

Parts marked with an asterisk (*) in the exploded view are supplied in Rebuild Kits. When Ordering Rebuild Kits for ASCO valves, order the Rebuild Kit number stamped on the valve nameplate. If the number of the kit is not visible, order by indicating the number of kits required, and the Catalog Number and Serial Number of the valve(s) for which they are intended.

ASCO Valves Automatic Switch Co. 50−60 Hanover Road, Florham Park, New Jersey 07932 www.ascovalve.com



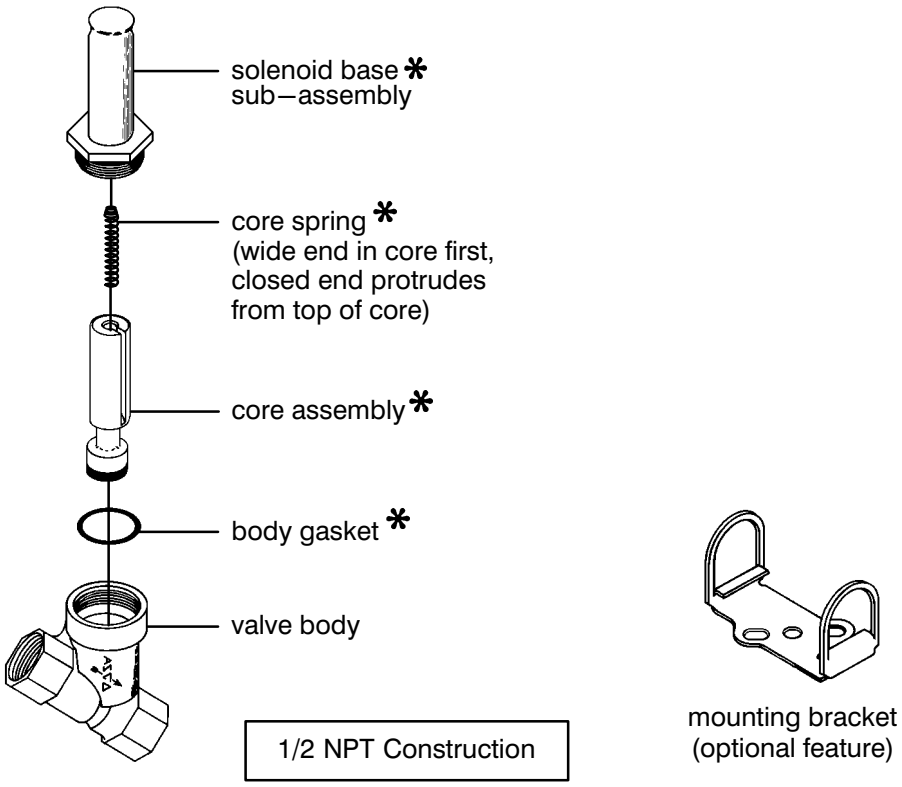


Figure 2 Series 8030 Valves without solenoid.

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