S201 – J2 (DC) -- Service and Installation --

09/03/2025 Rev.B

DESCRIPTION
The S201 Series Solenoid Valves are 2-way, normally closed, piloted, zero differential general-purpose valves. All stainless steel or brass construction with synthetic seating and sealing materials make them suitable for use with a variety of liquids, oils, and gases. Valves should be mounted with the coil in a vertical and upright position. A spring-loaded plunger assures positive shutoff. The S4 solenoid coil is rated at 10 watts.

OPERATION
S201 Valves are normally closed (N.C.) and open when electrically energized.

SPECIFICATIONS
Use S201 Valves within the specified operating ranges as indicated on the nameplate and in the complete Catalog Number. (min./max. psi, voltage, hz, maximum media temperature at F ambient, Cv factor, etc.).

OPERATING TEMPERATURES

Ambient	Elastomer	Fluid
32° - 125° F	EPR	32° - 295° F
32° - 125° F	Nitrile	32° - 180° F
32° - 125° F	FKM	32° - 230° F

For other applications, consult the factory.

INSTALLATION
Check valve specifications to make sure of proper application.
1. Clear all lines of foreign matter.
2. Valves should be mounted with the operator in a vertical/upright position. Media flow must be in the direction indicated on the valve body. If sediment is a problem, install a fine mesh strainer having adequate capacity ahead of the valve.
3. Do not use the solenoid housing as a handle. Apply thread seal to the male threads only.
4. Provide clearance for solenoid removal.
5. Wire in accordance with applicable local and national electrical codes. Apply rated voltage.

MAINTENANCE

IL REPLACEMENT
Turn off the electrical power supply to the solenoid before disconnecting the coil lead wires.
Incorrect coil reassembly can cause coil burnout. At all times, take care not to nick, dent, or damage the plunger tube.

It is not necessary to remove the valve from the pipeline. Follow Steps 1, 2, and 3 under **VALVE DISASSEMBLY**. Disassemble the solenoid, taking care to note the exact order of placement and quantity of parts.

Incorrect reassembly can cause coil burnout. At all times, take care not to nick, dent, or damage the plunger tube.

PARTS
The charts that follow cover replaceable coil part numbers and Repair/Rebuild kits for most S201 valves.

When ordering parts/kits, specify the Catalog Number, Serial Number, and Part Name. If your valve's Catalog Number is not listed, obtain the complete Serial Number, and consult the factory.

REBUILD KIT
The Rebuild Kit contains a plunger/spring/seat disc assembly, plunger tube assembly, O-rings, and an adapter ring.

REPAIR KIT
The Repair Kit contains a seat disc, diaphragm assembly, and O-rings.

REBUILD & REPAIR KIT CHART

Valve	Rebuild Kits	Repair Kits
S201GH__C__J2	KS201C-J2-DC	K201C-J2-DC
S201GH__N__J2	KS201N-J2-DC	K201N-J2-DC
S201GH__V__J2	KS201V-J2-DC	K201V-J2-DC
S201GH__E__J2	KS201E-J2-DC	K201E-J2-DC
S201GH__J__J2	KS201J-J2-DC	K201J-J2-DC
S201GH__L__J2	KS201L-J2-DC	K201L-J2-DC

COIL CHART

Valve	Voltage	DIN Coil	Conduit Coil
S201GH14__J2	6 VDC	HS4YH14	HS4GH14A24
S201GH15__J2	12 VDC	HS4YH15	HS4GH15A24
S201GH16__J2	24 VDC	HS4YH16	HS4GH16A24
S201GH17__J2	32 VDC	HS4YH17	HS4GH17A24

Cleaning

Cleaning fluid must be compatible with all valve components.
It is recommended that S201 Series Valves be cleaned on a routine basis by qualified personnel. Valves should be cleaned where flow media or service conditions may determine the life of the valve. If excessive leakage occurs or if the operation is sluggish, the unit must be cleaned.

SERVICE DISASSEMBLY AND KIT INSTALLATION

WARNING

Disassembly, reassembly, or internal adjustment without factory testing may result in hazardous conditions. If the valve does not operate properly after following the INSTALLATION and MAINTENANCE instructions, the complete valve must be replaced by a trained and experienced service person.

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1. Disconnect electrical connections and remove retaining nut (1). Remove with lock washer (2).

2. Lift off coil (3) from the plunger tube. Remove split washer (4). **Note – split washer (4) is not required when plunger tube (6A) is used.**

3. Do not damage the solenoid assembly.

4. Use GC Valves spanner nut (106198E) to remove items (5&6) or a 1" deep socket to remove item (6A). Do not nick, dent, or damage the plunger tube (6) or valve seating surfaces.

5. Carefully hold plunger tube (6/6A) in position when removing from valve bonnet (12) to prevent loss of internal parts.

6. Remove plunger assembly (7).

7. Remove four bonnet bolts (11) and separate valve bonnet (12) from valve body (16).

8. Carefully remove connecting spring (10) from diaphragm (13) and plunger (7) assemblies.

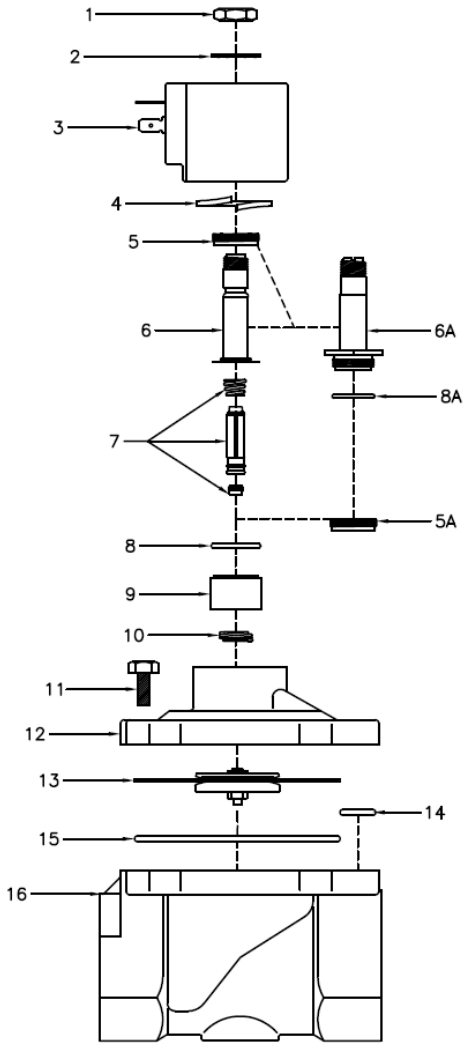
9. Check seat disc (7) and diaphragm assembly (13) for damage or wear.

10. Replace O-rings (8/8A, 14 & 15), diaphragm assembly (13), seat disc (7), and other parts as necessary. Consult the "REBUILD & REPAIR KIT CHART" for the correct kit part number.

11. Re-assemble in reverse order from above, taking care to properly re-install seat disc (7) and connecting spring (10).

12. Tighten tube base nut (5) or plunger tube (6A) to 50 in/lbs., and bonnet bolts (11) to 240 in/lbs.

13. Re-connect electrical and test for proper operation.



TROUBLESHOOTING

If the valve fails to open, check the voltage against the rating on the nameplate, check the voltage at solenoid lead connections, and check the control circuit and solenoid coil for burnout. If the valve fails to close, check the condition of the synthetic seat insert. Also, check for a damaged spring. The valve must be free of dirt to ensure tight shutoff. If media contaminants are a problem, install a fine mesh strainer to ensure proper closing and trouble-free operation.

Buzzing can be caused by low voltage or contaminants between the top of the plunger and the tube head. Check voltage--clean the plunger/interior of the tube assembly.