NS711 -- Service and Installation --

08/20/2024

DESCRIPTION
The NS711 Series Solenoid Valves are 2-way, normally closed, piloted, general purpose valves specifically designed for drinking water and other food products. All lead-free brass construction with synthetic seating and sealing materials make them suitable for use with a variety of liquids, and gases.
Valves may be mounted in any positions. A spring loaded plunger assures positive shutoff. The S3 solenoid coil is rated at 8 watts.

OPERATION
NS711 Valves are normally closed (N.C.) and open when electrically energized.

SPECIFICATIONS
Use NS711 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	32° - 125° F	Fluid	32° - 295° 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 are multi-poised and may be mounted in any position. Flow must be in 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 a clearance for solenoid removal.
5. Wire in accordance with applicable local and national electrical codes.

MAINTENANCE

COIL 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 solenoid, taking care to note the exact order of placement and quantity parts.

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

PARTS
The charts which follow cover replaceable coil part numbers, Repair and Rebuild kits for most NS711 valves.

When ordering parts/kits, specify 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, diaphragm assembly, O-rings and 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
NS711----C9CG1	KS711AF02G1-NSF	K711G1-NSF
NS711----C9DG1	KS711AF02G1-NSF	K711G1-NSF
NS711----C9EG5	KS711AF02G5-NSF	K711G5-NSF
NS711----C9FG9	KS711AF02G9-NSF	K711G9-NSF
NS711----C9GJ2	KS711AF02J2-NSF	K711J2-NSF
NS711----C9HJ5	KS711AF02J5-NSF	K711J5-NSF
NS711----C9JJ7	KS711AF02J7-NSF	K711J7-NSF

COIL CHART

Valve	Voltage	DIN Coil	Conduit Coil
NS711GF02C9G1-J7	120V 50/60	HS3YN02	HS3GN02A24
NS711GF15C9G1-J7	12 VDC	HS3YN15	HS3GN15A24
NS711GF16C9G1-J7	24 VDC	HS3YN16	HS3GN16A24
NS711GF24C9G1-J7	24V 50/60	HS3YN24	HS3GN24A24

Cleaning
Cleaning fluid must be compatible with all valve components.
It is recommended that NS711 Series Valves be cleaned on a routine basis by qualified personnel. Valves should be cleaned where flow media or service conditions may determine life of valve. Apply correct voltage. If excessive leakage occurs or if the operation is sluggish, the unit must be cleaned.

SERVICE
Disassembly

WARNING

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

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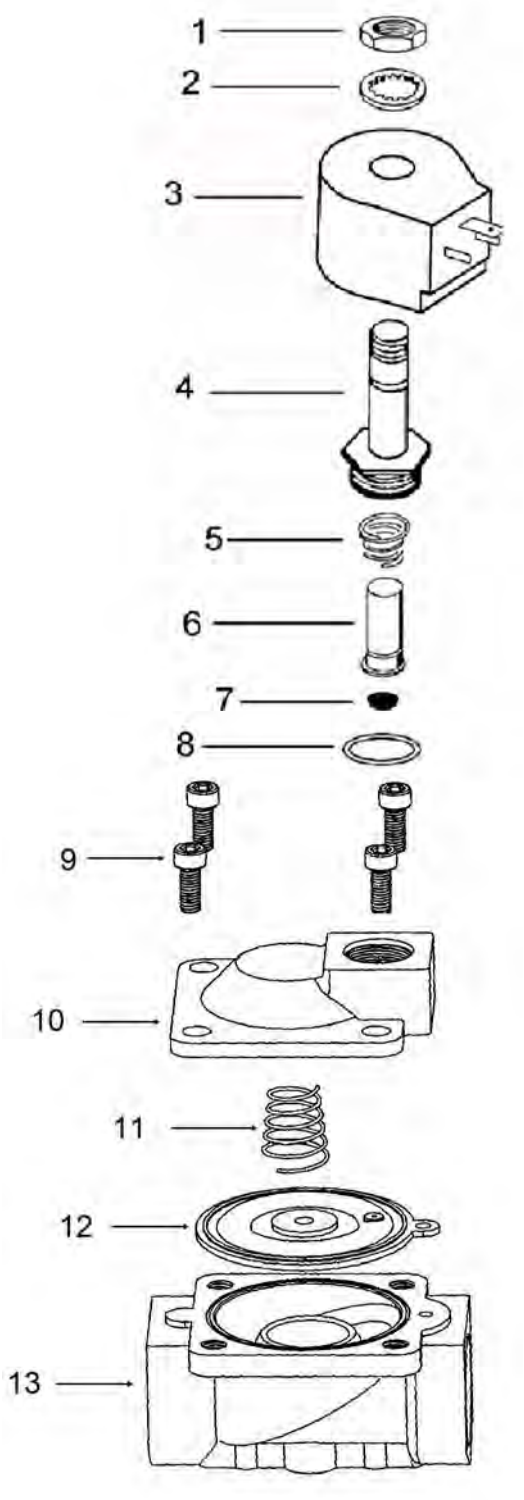
1. Unscrew the hex nut (1). Remove with lockwasher (2).
2. Lift off the coil (3) from the plunger tube.
3. Do not damage the solenoid assembly.
4. Use a 1" spanner to remove solenoid base nut and plunger tube (4). Do not nick, dent, or damage plunger tube (4) or valve seating surfaces.
5. Carefully hold plunger tube (4) in position when removing from valve bonnet (10) to prevent loss of internal parts.
6. Remove plunger/spring assembly (5, 6, & 7),
7. Remove four bonnet bolts (9) and separate the valve bonnet (10) from the valve body (13).
8. Check seat disc (7) and diaphragm assembly (12) for damage or wear.
9. Replace O-ring (8), diaphragm assembly (12), seat disc (7) and other parts as necessary.
10. Re-assemble in reverse order from above taking care to properly re-install the seat disc (7).
11. Tighten tube base nut (4) to 18 to 24 in/lbs and bonnet bolts (9) to 40 to 45 in/lbs.
12. Re-connect electrical and test for proper operation.

TROUBLE-SHOOTING

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

Buzzing or chattering can be caused by low voltage or dirt or chips between top of plunger and tube head. Check voltage--clean plunger and interior of tube and base assembly.



NS712 -- Service and Installation --

08/20/2024

DESCRIPTION
The NS712 Series Solenoid Valves are 2-way, normally open, piloted, general purpose valves specifically designed for drinking water and other food products. All lead-free brass construction with synthetic seating and sealing materials make them suitable for use with a variety of liquids, and gases.
Valves may be mounted in any positions. A spring loaded plunger assures positive shutoff. The S3 solenoid coil is rated at 8 watts.

OPERATION
NS712 Valves are normally open (N.O.) and close when electrically energized.

SPECIFICATIONS
Use NS712 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	32° - 125° F	Fluid	32° - 295° 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 are multi-poised and may be mounted in any position. Flow must be in 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 a clearance for solenoid removal.
5. Wire in accordance with applicable local and national electrical codes.

MAINTENANCE

COIL 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 solenoid, taking care to note the exact order of placement and quantity parts.

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

PARTS
The charts which follow cover replaceable coil part numbers, Repair and Rebuild kits for most NS712 valves.

When ordering parts/kits, specify 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, diaphragm assembly, O-rings and 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
NS712----C9CG1	KS712AF02G1-NSF	K712G1-NSF
NS712----C9DG1	KS712AF02G1-NSF	K712G1-NSF
NS712----C9EG5	KS712AF02G5-NSF	K712G5-NSF
NS712----C9FG9	KS712AF02G9-NSF	K712G9-NSF
NS712----C9GJ2	KS712AF02J2-NSF	K712J2-NSF
NS712----C9HJ5	KS712AF02J5-NSF	K712J5-NSF
NS712----C9JJ7	KS712AF02J7-NSF	K712J7-NSF

COIL CHART

Valve	Voltage	DIN Coil	Conduit Coil
NS712GF02C9G1-J7	120V 50/60	HS3YN02	HS3GN02A24
NS712GF15C9G1-J7	12 VDC	HS3YN15	HS3GN15A24
NS712GF16C9G1-J7	24 VDC	HS3YN16	HS3GN16A24
NS712GF24C9G1-J7	24V 50/60	HS3YN24	HS3GN24A24

Cleaning
Cleaning fluid must be compatible with all valve components.
It is recommended that NS712 Series Valves be cleaned on a routine basis by qualified personnel. Valves should be cleaned where flow media or service conditions may determine life of valve. Apply correct voltage. If excessive leakage occurs or if the operation is sluggish, the unit must be cleaned.

SERVICE
Disassembly

WARNING

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

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1. Unscrew the hex nut (1). Remove with lockwasher (2) and spacer (3).
2. Lift off the coil (4) from the plunger tube (5).
3. Do not damage the solenoid assembly.
4. Use a 1" wrench to remove plunger tube and base assembly (5). Do not nick, dent, or damage plunger tube (5) or valve seating surfaces.
5. Carefully hold plunger tube (5) in position when removing from valve bonnet (15) to prevent loss of internal parts.
6. Remove plunger (6), PTFE glide strip (7), tube head (9), seat retainer assembly (10 &11) and return spring (12).
7. Remove four bonnet bolts (14) and separate the valve bonnet (15) from the valve body (18).
8. Check seat disc (11) and diaphragm assembly (17) for damage or wear.
9. Replace O-rings (8, & 13), diaphragm assembly (17), seat disc (11) and other parts as necessary.
10. Re-assemble in reverse order from above taking care to properly re-install the seat disc (11).
11. Tighten plunger tube and base nut assembly (5) to 18 to 24 in/lbs. and bonnet bolts (14) to 40 to 45 in/lbs.
12. Re-connect electrical and test for proper operation.

TROUBLE-SHOOTING

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

Buzzing or chattering can be caused by low voltage or dirt or chips between the plunger and tube head. Check voltage--clean plunger and interior of tube and base assembly.