2-WAY SOLENOID VALVE

2-way normally closed solenoid valve with wet plunger design.

Applications
- Beverage machines
- Vending equipment
- Water purification equipment
- Potable water applications

Features
- Up to 120 psi MOPD
- Compression, push in fitting, barb port, and bulkhead fitting options
- UL and NSF certified
- Polysulfone body
- Class F (155°C) construction
- Suitable for water and air

### Electrical Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coil Voltages</td>
<td>24, 100, 120, 200, 240 VAC 50, 60 Hz [1]</td>
</tr>
<tr>
<td>Coil Power</td>
<td>7 watts</td>
</tr>
<tr>
<td>Coil Terminals</td>
<td>0.25&quot; Quick connect spade terminals</td>
</tr>
<tr>
<td>Duty Cycle</td>
<td>Continuous 100%</td>
</tr>
<tr>
<td>Coil Treatment</td>
<td>Polyester encapsulated</td>
</tr>
<tr>
<td>Insulation Class</td>
<td>Class F 311° F [155°C]</td>
</tr>
<tr>
<td>Ambient Temperature</td>
<td>77° F [25°C]</td>
</tr>
</tbody>
</table>

### Mechanical Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Media</td>
<td>Water, air</td>
</tr>
<tr>
<td>Media Temperature</td>
<td>Up to 150°F [65°C] for QC fittings</td>
</tr>
<tr>
<td>Operating Pressure</td>
<td>0-80 psi [0-5.5 bar] for Ø0.088 valve seat</td>
</tr>
<tr>
<td>Burst Pressure</td>
<td>450 psi</td>
</tr>
<tr>
<td>Inlet / Outlet Connections</td>
<td>6mm &amp; 0.25&quot; quick connect push in fittings</td>
</tr>
<tr>
<td>(See page 5 for tube size and assy notes)</td>
<td>Ø5/16 [8mm], Ø1/4, or Ø6mm Jaco Compression Fittings</td>
</tr>
<tr>
<td></td>
<td>1/4&quot; barb fittings for 1/4&quot; ID tubing</td>
</tr>
<tr>
<td>Mounting</td>
<td>2 Ø0.15 [3.8] holes on body for self tapping screw, 3/4-16 UNF-2A bulkhead mount option</td>
</tr>
<tr>
<td>Valve Body Material</td>
<td>PSU - Polysulfone</td>
</tr>
<tr>
<td>Seal Material</td>
<td>EPDM</td>
</tr>
<tr>
<td>Product Weight</td>
<td>4 oz.</td>
</tr>
</tbody>
</table>

### Agency Certifications

<table>
<thead>
<tr>
<th>Certification</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agency Certifications</td>
<td>UR, cUR, NSF</td>
</tr>
</tbody>
</table>

[1] AC coils are internally rectified. The rectifiers may require protection from transient voltages. It is recommended that a metal-oxide varistor (MOV) be placed in parallel at the coil.
**DSV28N-NC-W**

**Dimensional Drawing**
Units: Inches [mm]

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**PORT OPTIONS**

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**Flow Rate**

**Typical Flow Rate with 55°F [13°C] Water**

- **.088” orifice**
- **.060” orifice**

Specifications subject to change without notice

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# DSV28N-NC-W

## Ordering Information

DSV28N - NC - W- XXX - XX - XXX

### COIL VOLTAGE
- 24 VAC = 024A
- 100 VAC = 100A
- 120 VAC = 120A
- 200 VAC = 200A
- 240 VAC = 240A
- 12 VDC = 012D
- 24 VDC = 024D
- 36 VDC = 036D

### PORT FITTINGS
- QC 6mm = Q1
- QC 1/4 = Q2
- COMPRESSION 5/16” = C1
- COMPRESSION 1/4” = C2
- COMPRESSION 6mm = C3
- 1/4” BARBS = B1
- (for 1/4” ID Tubing)
- BULKHEAD 6mm = H1
- BULKHEAD 1/4” = H2

### VALVE SEAT DIAMETER
- Ø0.088 [2.2] = 088 (80 psi max)
- Ø0.060 [1.5] = 060 (120 psi max)
The cartridges used in these valves are Acetal cartridges.

**Potable Water Temp:**
+34° to 149° F [+1° to 65° C]

**Tube Types:**
*Plastic Tube* - Polyethylene, nylon, and polyurethane conforming to the tolerances below. For soft or thin walled tube we recommend the use of tube inserts.

*Metal Tube (soft)* - Brass, copper, or mild steel conforming to the tolerance shown below. Hard metal tubing is not recommended.

It is essential that the outside diameter is free from score marks and that the tube be deburred before inserting into the cartridges.

**Tube Tolerances:**
<table>
<thead>
<tr>
<th>Size</th>
<th>Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.25&quot;</td>
<td>+0.001/-0.004</td>
</tr>
<tr>
<td>6mm</td>
<td>+0.05/-0.10</td>
</tr>
</tbody>
</table>

**Cleaners and Sanitizing of Acetal Fittings:**
John Guest Cartridges incorporate acetal parts. Our advise to customers is to use cleaners and sanitizing agents that are above pH4 and low in hypochlorite level. Acetal fittings and parts that are cleaned and/or sanitized should be rinsed immediately with copious amounts of clean tap water to remove all traces of the cleaners.

**Product Design:**
John Guest has a policy of continuous research and development and reserves the right to amend without notice the specification and design of all products. Product descriptions and sizes are approximate and John Guest reserves the right to supply products which may have minor and negligible deviations from that printed in catalogs etc. (or from products previously supplied).

**Warranty:**
While we give a warranty against defects in manufacture or materials, it is the responsibility of the specifier to ensure that fittings and related products are suitable for their application. The installation must be carried out correctly in accordance with our recommendations complying with recognized codes of practice and relevant national standards, and be properly maintained. Please refer to our terms and conditions of sale.

**Product Selection:**
Due to the wide variety of operating conditions, applications, and uses of our products, it is the user’s / specifiers responsibility, through their own testing analysis, to ensure correct product selection for their applications.

**Side Loads:**
Connections should not be subject to excessive side loads or used as support brackets. Tubing and fittings should be adequately supported to prevent excessive side loading.

Customers are advised to carry out appropriate testing to ensure cartridges are suitable for their application.

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**Compression Fittings (Jaco)** - Information taken from Jaco Mfg.’s website www.jacomfg.com.

Installation instructions for Jaco tube fittings:

1. Cut the tubing end squarely and remove the internal and external burrs.
2. Insert the tubing through the back of the nut all the way through the nut assembly to the tube stop in the valve body. If the tubing does not enter the nut easily, loosen the nut one turn and then insert the tubing all the way to the tube stop in the valve body.
3. Turn the nut hand tight.
4. Wrench tighten the nut 1-1/2 - 2 turns.
5. All nuts must be retightened when the system reaches projected operating temperature.

Note: Squeaking sound when tightening nut is normal.