MULTIPLE SOLENOID VALVE

- Two Types of Shut-Off Arrangements Available.
- Five Solenoid Types.
- Open and Close within One Second.
- Suitable for 2\textsuperscript{nd} and 3\textsuperscript{rd} Family Gases.
- Operating Pressure Range of 0 to 50mbars.
- Valve Class B.
- Approved by British Gas

Application

The MSV is a solenoid type valve, generally having two or more solenoids, which have been designed to specific customer requirements. The valve operation and sequencing will vary for each type dependant upon the application.

Physical Description

The MSV is a multiple solenoid valve. This product utilises the well-proven Teddington solenoid coil, based on the SOV unit, with a lightweight aluminium body. The valves are arranged in one or two rows, depending on the number of solenoids, on either side of the valve body.

Operation

The MSV is an electrically operated shut off valve. Inside the solenoid there is coil of wire, usually cylindrical, in which a magnetic field is created by passing an electric current through it. This field is used to move an iron rod placed on its axis at the centre of the coil. When the solenoid is attached to the valve body the rod can be operated by switching the current on or off, so converting electrical energy into mechanical energy. This moves the rod in and out opening and shutting the valve.
Technical Specification

Operating Pressure
0 to 50mbar.

Ambient Temp Range
0 to +70°C, or –20 to +70°C dependant on type.

Mounting Attitude
Universal

Declared Life
Better than 500 000 cycles
(BS EN 161:1991 Clause 4.11.3)

Solenoid Types

<table>
<thead>
<tr>
<th>Voltage &amp; Power rating</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>200V 60Hz</td>
<td>117/E or F</td>
</tr>
<tr>
<td>230V 50Hz</td>
<td>117/B or C</td>
</tr>
<tr>
<td>24V d.c.</td>
<td>117/G</td>
</tr>
<tr>
<td>12V d.c.</td>
<td>117/D</td>
</tr>
<tr>
<td>9V d.c.</td>
<td>117/H</td>
</tr>
</tbody>
</table>

Valve Types
Two types of shut-off valve arrangements are available.

3.2mm seat, which can be used with the above solenoids.

5.0mm seat with higher flows, which can be used only with the d.c. open style solenoids. These require a special circuitry to open the valve at a higher voltage, then drop back to a holding voltage once open.

The 12V coil version requires 18V for 1 second max. to open and 8 to 12V holding.

Electrical Connections

230V ac version – 1 off blue, 1 off brown, 1 off green/yellow.
16 x 0.2 copper conductors with PVC insulation.
PVC rating: 85°C continuous 105°C intermittent.

12V dc version – 2 off brown leads, same specification as 230V ac.
24V dc version – 2 off blue leads, same specification as 230V ac.

Sleev ing (if required) heat resistant PVC 105°C.

Electrical Ratings

<table>
<thead>
<tr>
<th>Type</th>
<th>Voltage &amp; Power rating</th>
<th>Type</th>
<th>Voltage &amp; Power rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>230V ac 50Hz</td>
<td>9.2 VA</td>
<td>117/B or C</td>
<td>230V ac 50Hz</td>
</tr>
<tr>
<td>220V 60Hz</td>
<td>Full wave rectified</td>
<td>117/E or F</td>
<td>220V 60Hz</td>
</tr>
<tr>
<td>12V d.c.</td>
<td>3.8 W</td>
<td>117/D</td>
<td>12V d.c.</td>
</tr>
<tr>
<td>24V d.c.</td>
<td>4 W</td>
<td>117/G</td>
<td>24V d.c.</td>
</tr>
<tr>
<td>230V 50Hz</td>
<td>7.36 VA</td>
<td>117/H</td>
<td>230V 50Hz</td>
</tr>
</tbody>
</table>

Rectification diodes have a minimum PIV of 1000 V.

Ordering Information
Contact one of our sales engineers to discuss details.

Outline Details

Holmbush · St Austell · Cornwall · UK · PL25 3HG
Tel: +44 (0) 1726 74400 · Fax: +44 (0) 1726 222504 · info@tedcon.com · www.tedcon.com