The Model 115-2 has an extremely wide range of applications: anywhere it is necessary to open and close a valve electrically. Typical examples include:
- Process control
- Petroleum loading terminals
- Storage tank level control

SERIES FEATURES
- Electrically operated solenoid allows valve to open or close
- Can be maintained without removal from the line
- Adjustable response speed
- Factory tested and can be pre-set to your requirements

OPERATION
A two-way solenoid, when closed, causes the main valve to close. Opening the solenoid opens the valve. The pilot system is equipped with a needle valve that allows the opening and closing speed of the valve to be adjusted.

The solenoid can be supplied normally closed (energize to open) or normally open (energize to close).

COMPONENTS
The Model 115-2 consists of the following components, arranged as shown on the schematic diagram:
1.) Model 65 Basic Control Valve
2.) Model 451 Two-Way Solenoid Pilot
3.) Model 126 Ejector
4.) Model 141-2 Needle Valve
5.) Model 123 Inline Strainer

SIZING
Definitive sizing information can be found in the Series 115 section of the OCV Catalog and Engineering section Performance Charts. Consult the factory for assistance.

MAXIMUM FLUID FLOW

<table>
<thead>
<tr>
<th>SIZE (INCHES)</th>
<th>1.25&quot;</th>
<th>1.5&quot;</th>
<th>2&quot;</th>
<th>2.5&quot;</th>
<th>3&quot;</th>
<th>4&quot;</th>
<th>6&quot;</th>
<th>8&quot;</th>
<th>10&quot;</th>
<th>12&quot;</th>
<th>14&quot;</th>
<th>16&quot;</th>
<th>18&quot;</th>
<th>20&quot;</th>
<th>24&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.5 FT/SEC (MILITARY)</td>
<td>MAX FLOW</td>
<td>70</td>
<td>100</td>
<td>160</td>
<td>230</td>
<td>350</td>
<td>600</td>
<td>1350</td>
<td>2350</td>
<td>3700</td>
<td>5250</td>
<td>6350</td>
<td>8300</td>
<td>10500</td>
<td>13100</td>
</tr>
<tr>
<td>15 FT/SEC (MAX RECOMMENDED)</td>
<td>(GPM)</td>
<td>100</td>
<td>130</td>
<td>210</td>
<td>300</td>
<td>470</td>
<td>800</td>
<td>1800</td>
<td>3150</td>
<td>4950</td>
<td>7000</td>
<td>8450</td>
<td>11100</td>
<td>14000</td>
<td>17400</td>
</tr>
<tr>
<td>20 FT/SEC (MAX CONTINUOUS)</td>
<td>(GPM)</td>
<td>100</td>
<td>130</td>
<td>210</td>
<td>300</td>
<td>470</td>
<td>800</td>
<td>1800</td>
<td>3150</td>
<td>4950</td>
<td>7000</td>
<td>8450</td>
<td>11100</td>
<td>14000</td>
<td>17400</td>
</tr>
</tbody>
</table>

U.S. Military valves cannot exceed a max velocity of 7.5 ft/sec. Max recommended fluid flow for petroleum fluids is 15 ft/sec. Max continuous flow for all fluids is 20 ft/sec.

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Global performance. Personal touch.
**SPECIFICATIONS** (Typical Aviation Fueling Application)

The solenoid shut-off valve shall open and close via discrete electrical signals. The valve shall be equipped with a two-way solenoid valve that will allow the valve to open when <energized, deenergized>.

**DESIGN**

The solenoid valve shall be a single-seated, line pressure operated, diaphragm actuated, pilot controlled globe valve. The valve shall seal by means of a corrosion-resistant seat and a resilient, rectangular seat disc. These, and other parts, shall be replaceable without removing the valve from the line. The stem of the main valve shall be guided top and bottom by integral bushings. Alignment of the body, bonnet and diaphragm assembly shall be by precision dowel pins. The diaphragm shall not be used as a seating surface, nor shall the pistons be used as an operating means. The pilot system shall be furnished complete and installed on the main valve. It shall include a needle valve, inline strainer and solenoid valve. The solenoid shut-off valve shall be operationally and hydrostatically tested prior to shipment.

**MATERIALS OF CONSTRUCTION**

The main valve body and bonnet shall be ductile iron. All ferrous surfaces shall be coated with 4 mils of epoxy. The main valve seat ring shall be stainless steel. Elastomers (diaphragms, resilient seats and O-rings) shall be Buna-N. The needle valve and control line tubing shall be stainless steel. The solenoid shall have a stainless steel body, explosion-proof enclosure and be suitable for operation on <voltage>.

**OPERATING CONDITIONS**

The solenoid shut-off valve shall be suitable for pressures of <X to X> psi at flow rates up to <X> gpm.

**ACCEPTABLE PRODUCTS**

The solenoid shut-off valve shall be a <size> Model 115-2, <globe pattern, angle pattern>, with <150# flanged, 300# flanged, threaded, grooved> end connections, as manufactured by OCV Control Valves, Tulsa, Oklahoma, USA.

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**U.S. DIMENSIONS - INCHES**

| DIM | END CONNECT. | 1 1/4-1 1/2 | 2 | 2 1/2 | 3 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 24 |
|-----|--------------|-------------|---|-------|---|---|---|---|-----|----|----|----|----|----|
| A   | SCREWED      | 8 3/4       | 9 7/8 | 10 1/2 | 13 | -- | -- | -- | -- | -- | -- | -- | -- |
|     | GROOVED      | 8 3/4       | 9 7/8 | 10 1/2 | 13 | 15 | 15 | 1/4 | 20 | -- | -- | -- | -- |
|     | 150# FLGD    | 8 1/2       | 9 3/8 | 10 1/2 | 12 | 15 | 17 | 3/4 | 25 | 38 | 29 | 34 | 34 | 62 |
|     | 300# FLGD    | 8 3/4       | 9 7/8 | 11 1/8 | 12 3/4 | 15 | 5/8 | 16 | 5/8 | 26 | 38 | 31 | 1/8 | 35 | 1/2 | 40 | 1/2 | 42 | 63 | 3/4 |
| C   | SCREWED      | 4 3/8       | 4 3/8 | 6 | 6 1/2 | 6 | 6 1/2 | -- | -- | -- | -- | -- | -- | -- |
|     | GROOVED      | 4 3/8*      | 4 3/8 | 6 | 6 1/2 | 7 5/8 | -- | -- | -- | -- | -- | -- | -- |
|     | 150# FLGD    | 4 1/4       | 4 3/8 | 6 | 6 | 7 1/2 | 10 | 12 1/16 | 14 7/8 | 17 | -- | 20 | 13/16 | -- |
|     | 300# FLGD    | 4 3/8       | 5 | 6 3/8 | 6 3/8 | 7 13/16 | 10 1/2 | 13 | 3 1/16 | 15 9/16 | 17 3/4 | -- | 21 5/8 | -- |
| D   | SCREWED      | 3 1/8       | 3 1/8 | 4 | 4 1/2 | 4 1/2 | 5 5/8 | -- | -- | -- | -- | -- | -- | -- |
|     | GROOVED      | 3 1/8*      | 3 7/8 | 4 | 4 1/2 | 5 5/8 | -- | -- | -- | -- | -- | -- | -- |
| E   | ALL          | 6 6 7       | 6 1/2 | 8 | 10 | 11 7/8 | 15 3/8 | 17 | 18 | 19 | 27 |
| F   | (OPT)        | 3 7/8 3 7/8 3 7/8 | 5 7/8 | 3 7/8 | 3 7/8 | 3 7/8 | 3 7/8 | 3 7/8 | 3 7/8 | 3 7/8 | 6 3/8 | 6 3/8 | 6 3/8 | 6 3/8 |

*Note: for military fueling valves, 6” 150# flanges have 20” face to face dimensions and 6” 300# flanges have 21” face to face dimensions.*

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For maximum efficiency, the OCV control valve should be mounted in a piping system so that the valve bonnet (cover) is in the top position. Other positions are acceptable but may not allow the valve to function to its fullest and safest potential. In particular, please consult the factory before installing 8” and larger valves, or any valves with a limit switch, in positions other than described. Space should be taken into consideration when mounting valves and their pilot systems.

A routine inspection & maintenance program should be established and conducted yearly by a qualified technician. Consult our factory at 1-888-628-8258 for parts and service.

**How to order your Model 115-2 valve**

When ordering please provide:

- Fluid to be controlled - Model Number - Size - Globe or Angle - End Connection - Body Material - Trim Material - Solenoid Voltage - Energize to Open or Close Valve - Special Requirements / Installation Requirements

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