The Model 115-1FP Anti-Flood System is designed to shut off the flow of water when the probe detects a presence of water that exceeds a predetermined time.

The Anti-Flood System consists of three components:
1.) Water Detection Probe Model 140
2.) Anti-Flood Valve Model 115-1FP
3.) Anti-Flood Relay Controller P/N 249994

The Model 115-1FP uses the OCV Anti-Flood Relay Controller (P/N 249994), which supplies power to the Model 140 Water Detection Probe. When combined, these two devices have the ability to detect water in a drain line, floor drain, or any type of pit. When a constant presence of water is detected that exceeds the user specified time limit, a set of internal contacts will close in the controller. The OCV Anti-Flood Relay Controller will then send a signal to energize the solenoid on the OCV Model 115-1FP Anti-Flood Valve. The OCV Model 115-1FP Anti-Flood Valve is typically located in the supply line to the system being protected. This control valve is a normally open valve and when the solenoid is energized, it causes the main valve to close and stop the flow of water through the valve. The system can then be reset by manually resetting the controller and then resetting the control valve.

**SERIES FEATURES**
- Detector Probes are 316 SS
- Timer is user adjustable
- Anti-Flood Relay Controller and probe enclosure NEMA IP68

**OPERATION**

The operation of the normally open 115-1FP Anti-Flood Valve is controlled by the Anti-Flood Relay Controller and Water Detection Probe.

When the Water Probe detects the presence of water for a time period that exceeds the user specified period of time, it will cause the Anti-Flood Relay Controller to trigger and latch on. When latched on, a set of contacts are then closed, causing an alarm to a possible flooding condition.

When combined with the OCV Model 115-1FP Anti-Flood Valve, these contacts will energize the 3-way solenoid. When the solenoid is energized, the common bonnet port connection is shifted from exhaust to inlet. When the inlet port is connected to the bonnet, the main valve will close and stop the flow of water through the valve, thus stopping the potential flooding condition.

Once a flooding condition has been detected, the system must be manually reset. After making sure no water is present in the pipe or drain being monitored, first reset the Anti-Flood Relay Controller and then manually reset the Anti-Flood Valve by temporarily opening the ball valve on the solenoid’s exhaust port. Once both systems are reset, the main valve will begin to open, restoring flow to the system. Once the bonnet is drained and flow restored, reclose the ball valve on the solenoid’s exhaust port.

**COMPONENTS**

The Model 115-1FP consists of the following components, arranged as shown on the schematic diagram:
1.) Model 65 Basic Control Valve
2.) Model 640140 Three-way Solenoid Pilot
3.) Model 141-2 Needle Valve
4.) Model 159 Y-strainer
5.) Model 141-4 Isolation Ball Valves
6.) Model 31 Limit Switch Assembly
7.) Anti-Flood Relay Controller
8.) Model 140 Water Detection Probe
9.) Pressure Gauge (optional)

**RECOMMENDED INSTALLATION**

- Install the valve with adequate space above and around the valve to facilitate servicing. Refer to the Dimension table.
- Valve should be installed with the bonnet (cover) at the top, particularly 8” and larger valves, and any valve with a limit switch.
- Shut-off valves should be installed upstream and downstream of the control valve. These are used to isolate the valve during startup and maintenance.
- Wire the valve solenoid via conduit appropriate to the application.

**MAX. PRESSURE**

The pressures listed here are maximum pressures at 100°F. Also, working pressures of solenoids vary greatly, consult factory on application of OCV Model 115-1FP valves when pressures exceed those stated in chart.

**SIZING**

Definitive sizing information can be found in the OCV Catalog, Series 115 section and Engineering section Performance Charts. Consult the factory for assistance and a copy of the OCV ValveMaster Sizing program.

**END CONNECTIONS**

<table>
<thead>
<tr>
<th>END CONNECTIONS</th>
<th>DUCTILE IRON</th>
<th>STEEL/STN STL</th>
<th>LOW-LEAD BRONZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threaded</td>
<td>400 psi</td>
<td>400 psi</td>
<td>400 psi</td>
</tr>
<tr>
<td>Grooved</td>
<td>300 psi</td>
<td>300 psi</td>
<td>300 psi</td>
</tr>
<tr>
<td>150# Flanged</td>
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<td>285 psi</td>
<td>225 psi</td>
</tr>
<tr>
<td>300# Flanged</td>
<td>400 psi</td>
<td>400 psi</td>
<td>400 psi</td>
</tr>
</tbody>
</table>

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email: sales@controlvalves.com • website: www.controlvalves.com
**SPECIFICATIONS** (Typical Water Application)

The anti-flood valve shall open and close via discrete electrical signals. The valve shall be equipped with a three-way solenoid valve that will allow the valve to open when <energized>, deenergized>. **DESIGN**

The anti-flood 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 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, Y-strainer, solenoid valve and isolation ball valves. The anti-flood valve shall be operationally and hydrostatically tested prior to shipment.

**MATERIALS OF CONSTRUCTION**

The main valve body and bonnet shall be ductile iron per ASTM A536, Grade 65-45-12. All ferrous surfaces shall be coated with 4 mils of epoxy. The main valve seat ring shall be low-lead Bronze. Elastomers (diaphragms, resilient seats and O-rings) shall be EPDM. The needle valve and isolation ball valves shall be brass, and control line tubing shall be copper. The solenoid shall have a brass body, weatherproof enclosure and be suitable for operation on <voltage>.

**OPERATING CONDITIONS**

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

**ACCEPTABLE PRODUCTS**

The antiflood valve shall be a <size> Model 115-1, <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 CONN | 1 1/4 - 1 1/2 | 2 | 2 1/2 | 3 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 24 |
|-----|----------|---------------|---|-------|---|---|---|---|----|----|----|----|----|----|
| A   | SCREWED  | 9 7/8         | 10 1/2 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 |
|     | GROOVED | 9 7/8         | 10 1/2 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 |
| B   | SCREWED  | 4 3/8         | 4 3/4 | 6 1/2 | 8 1/2 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
|     | GROOVED | 4 3/8         | 4 3/4 | 6 1/2 | 8 1/2 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 |
|     | 150F LGD | 4 3/4         | 6 1/2 | 8 1/2 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 |
|     | 300F LGD | 4 3/8         | 6 1/2 | 8 1/2 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 |
| C   | SCREWED  | 3 1/8         | 3 7/8 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 |
|     | GROOVED | 3 1/8         | 3 7/8 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 |
|     | 150F LGD | 3 3/8         | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 |
|     | 300F LGD | 3 3/8         | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 | 4 4 1/2 |
| D   | SCREWED  | 6 1/2         | 7 1/2 | 8 10 1/2 | 11 7/8 | 13 1/4 | 15 3/4 | 17 | 18 | 19 | 20 | 21 1/2 | 22 1/2 | 23 1/2 |

*GROOVED END NOT AVAILABLE IN 1 1/4"*