



Model 115-1 & Anti-Flood Relay Controller ▲

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
- ▶ Power 100-260VAC < 1.0Amp
- ▶ 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.

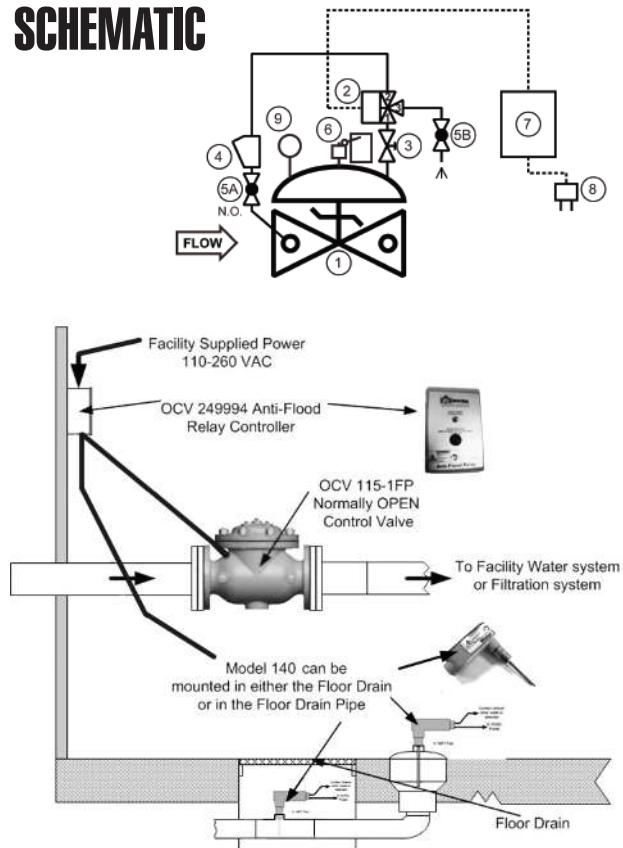
Once a flooding condition has been detected, the system must be manually reset. After making sure no water is present in the pipe or drain being monitored, first reset the Anti-Flood Relay Controller and then manually reset the Anti-Flood Valve by temporarily opening the ball valve on the solenoid's 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)

SCHEMATIC



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	DUCTILE IRON	STEEL/STN STL	LOW-LEAD BRONZE
Threaded	400 psi	400 psi	400 psi
Grooved	300 psi	300 psi	300 psi
150# Flanged	250 psi	285 psi	225 psi
300# Flanged	400 psi	400 psi	400 psi

TOLL FREE 1.888.628.8258 • phone: (918)627.1942 • fax: (918)622.8916 • 7400 East 42nd Place, Tulsa, Ok 74145
 email: sales@controlvalves.com • website: www.controlvalves.com

Model 115-1FP Anti-Flood System



SIZES GLOBE/ANGLE

Screwed Ends - 1 1/4" - 3"

Grooved Ends - 1 1/2" - 6" (globe)

1-1/2" - 4" (angle)

Flanged Ends - 1 1/4" - 24" (globe);

1 1/4" - 16" (angle)

FLUID OPERATING TEMPERATURE RANGE

(Valve Elastomers)

EPDM 32° F - 230°F*

MATERIALS Consult factory for others.

Body/Bonnet: Ductile Iron (epoxy coated), Carbon steel (epoxy coated), Stainless Steel, low-lead Bronze Others available (consult factory)

Seat Ring: low-lead Bronze, Stainless Steel

Stem: Stainless Steel, Monel

Spring: Stainless Steel

Diaphragm: EPDM*

Seat Disc: EPDM*

Pilot: low-lead Bronze, Stainless Steel

Other pilot system components: low-lead Bronze/Brass, All Stainless Steel

Tubing & Fittings: Copper/Brass, Stainless Steel

Solenoid:

Enclosure: Weatherproof NEMA 4X / Explosion Proof NEMA 4X, 6P, 7, 9

Body: Brass, Stainless Steel

Voltages: 24, 120, 240, 480 VAC / 12, 24 VDC

*Others available upon request.

**Valves 1-1/4" through 24" are certified to NSF/ANSI 372. Valves 4" through 24" are also certified to NSF/ANSI 61-G.

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.

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	8 3/4	9 7/8	10 1/2	13	--	--	--	--	--	--	--	--
	GROOVED	8 3/4	9 7/8	10 1/2	13	15 1/4	20	--	--	--	--	--	--
	150# FLGD	8 1/2	9 3/8	10 1/2	12	15	17 3/4	25 3/8	29 3/4	34	39	40 3/8	62
	300# FLGD	8 3/4	9 7/8	11 1/8	12 3/4	15 5/8	18 5/8	26 3/8	31 1/8	35 1/2	40 1/2	42	63 3/4
C ANGLE	SCREWED	4 3/8	4 3/4	6	6 1/2	--	--	--	--	--	--	--	--
	GROOVED	4 3/8*	4 3/4	6	6 1/2	7 5/8	--	--	--	--	--	--	--
	150# FLGD	4 1/4	4 3/4	6	6	7 1/2	10	12 11/16	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 3/16	15 9/16	17 3/4	--	21 5/8	--
D ANGLE	SCREWED	3 1/8	3 7/8	4	4 1/2	--	--	--	--	--	--	--	--
	GROOVED	3 1/8*	3 7/8	4	4 1/2	5 5/8	--	--	--	--	--	--	--
	150# FLGD	3	3 7/8	4	4	5 1/2	6	8	11 3/8	11	--	15 11/16	--
	300# FLGD	3 1/8	4 1/8	4 3/8	4 3/8	5 13/16	6 1/2	8 1/2	12 1/16	11 3/4	--	16 1/2	--
E	ALL	6	6	7	6 1/2	8	10	11 7/8	15 3/8	17	18	19	27
H	ALL	10	11	11	11	12	13	14	17	18	20	20	28 1/2

*GROOVED END NOT AVAILABLE IN 1 1/4"

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 @ 1-888-628-8258 for parts and service.

How to order your Model 115-1FP valve

When Ordering please provide:

Fluid to be controlled -Model Number -Size

Globe or Angle -End Connection -Body Material

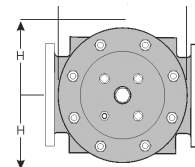
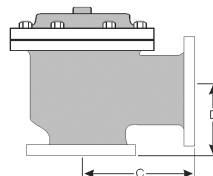
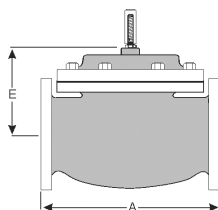
Trim Material -Solenoid Voltage -Energize to Open

or Close Valve -Solenoid enclosure Weatherproof or

Explosion Proof -Solenoid exhaust to downstream

or atmosphere -Special Requirements / Installation

requirements



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TOLL FREE 1.888.628.8258 • phone: (918)627.1942 • fax: (918)622.8916 • 7400 East 42nd Place, Tulsa, Oklahoma 74145
email: sales@controlvalves.com • website: www.controlvalves.com