



Installation Manual

RS-080-MK6

WITH STEP-DOWN TRANSFORMER AND PLENUM-RATED WIRES

Operation and Installation Instructions for FloodMaster Total Water Main Leak Detection Alarm/Shut-Off System – RS-080-MK6 Series for Plenum Spaces

CAUTION: DO NOT PLACE FINGERS OR ANYTHING INSIDE THE VALVE PORTS. DOING SO CAN RESULT IN THE LOSS OF FINGER AND/OR DAMAGE TO THE VALVE.

SYSTEM OVERVIEW:

The RS-080 Series Total Water Main Leak Detection Alarm Shut-Off System is designed to sound an audible alarm and shut down the water feed line when the sensor puck comes in contact with conductive liquid (such as water). In the event the alarm activates, locate the source of the leak, remove the sensor puck from the water and dry the metal contacts at the bottom of the sensor puck. Correct the problem causing the leak and place the sensor puck in the desired leak detection location once again as required. Press and release the reset button on the alarm box to open the valve and begin the flow of water again. All units provide an optional connection to a home security alarm system or control panel. Additional sensor pucks can be added to the system where a wider area of leak detection is required.



INSTALLATION INSTRUCTIONS:

1. Turn off the water supply to the building.
2. Cut the water line after the water shut-off valve.
3. Install valve using best plumbing practices and in adherence to all local plumbing codes.
Note: Butterfly valves require appropriate mounting flange and hardware (not included). Recommended flange: 316/316L SS forged, threaded NPT-F, 150 lb. ANSI raised-face flange (raised surface on the back).

Valve Size	NPT Dimension	Flange OD	316 SS, 5/8-11 Bolts (Qty.)	316 SS Flat Washers (Qty.)	316 SS Nut 5/8-11 (Qty.)	316 SS Split Lock Washer (Qty.)
2-1/2"	2-1/2"	7"	4	8	4	4
3"	3"	7-1/2"	4	8	4	4
4"	4"	9"	8	16	8	8

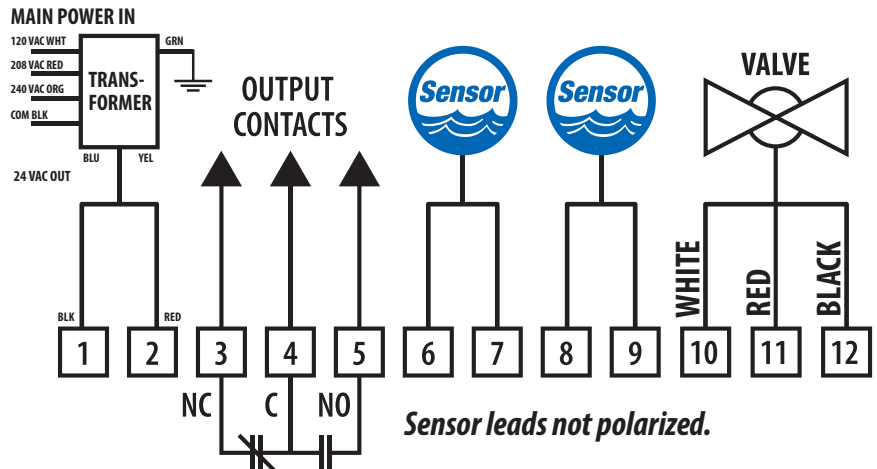
4. Open water supply and inspect for leaks.
5. The receiver connector comes pre-wired with basic connections to the power supply, sensor and electric valve actuator. Using an appropriate screwdriver, make any additional electrical connections as may be desired for output contacts or additional sensors per the diagram provided. *(Note: additional sensors can be connected to either 6 & 7 or 8 & 9, as wiring space allows.)*

- Snap the terminal wiring block into the receiver housing at the mating slot provided.

6. Place the sensor puck(s) on the floor or in the area where the potential flooding may occur and leak detection is desired (examples: base of washing machine, hot water heater, under sink, etc.). It is recommended that a bead of silicone be laid on the floor that encircles the protected area.

7. Mount the alarm box to the wall.

8. Turn off the main power. Wire the appropriate inputs to the main power source. Wire the blue and yellow wires (24 VAC output) to the plenum wire that is prewired to the power input of the contact plug. Turn on the main power. The green Power indicator light on the receiver will turn on.



(Continued – See reverse.)



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9. Function Test:

- a. Place the sensor puck on a wet paper towel. The audible alarm will sound and the valve will rotate closed.
- b. Remove the sensor puck from the paper towel and dry off the steel pins located on the bottom of the puck.
- c. Open water faucet and inspect for water flow. There should be no water flow.
- d. Press and release the reset button on the alarm box to open the valve and begin the flow of water again.
- e. Inspect faucet for water flow.
- f. Repeat steps a-f for each sensor puck on the system.

TRANSFORMER WIRING INSTRUCTIONS:

The supplied transformer has multiple input taps to accommodate different line voltages. If the existing line voltage you have at your facility is:

120 VAC – The **WHITE** wire from the transformer should be connected to the hot leg of the input voltage and the black wire to the neutral leg.

208 VAC – The **RED** wire from the transformer should be connected to the hot leg of the input voltage and the black wire to the neutral leg.

240 VAC – The **ORG** wire from the transformer should be connected to the hot leg of the input voltage and the black wire to the neutral leg.

The **GREEN** wire in all cases must be connected to **EARTH GROUND**.

Each wiring combination as stated above yields the same 24 VAC output across the **BLUE** and **YELLOW** wires of the secondary winding of the transformer.

TRANSFORMER MOUNTING INSTRUCTIONS:

The kit contains a cover plate for a standard junction box. The cover has a hole or knock out in the center of it. The cover plate is designed such that the transformer can be mounted to it and then screwed into the junction box.

1. In order to mount the transformer to the cover, carefully route the primary wires of the transformer through the hole in the cover.
2. Tilt the cover so that the head of the retaining screw on the transformer is over the cover.
3. Back the screw out until the cover slips under the threaded end of the retaining screw.
4. Tighten the screw until the transformer is secured on the cover. The threaded end of the screw is designed to press against the cover to hold the transformer in place.

MAINTENANCE:

Exercise (press and release) the reset button on the alarm box annually to ensure correct operation and to maintain product warranty status.

OPTIONAL FEATURES AND CONNECTIONS:

Additional Sensor Pucks – For applications where a wider area of leak detection coverage is desired, additional sensor pucks can be added to the system. Wire additional sensor pucks to the terminal strip to pins 6 & 7 or 8 & 9. Additional sensor pucks are sold separately; custom wire lengths available.

Security Alarm Connection – Use for applications where connection to a home security system or control panel is desired. This dry contact relay signal can be wired per your application requirements as follows: Normally Closed Circuit – 3 & 4; Normally Open Circuit – 4 & 5

ADDITIONAL CABLE LENGTH BETWEEN VALVE ASSEMBLY AND ALARM BOX:

Splice in up to 100' of additional length per local electrical codes using: 3-conductor; 18 AWG; PVC-jacketed; 75 C; black, red, and white leads; plenum-rated; approximate OD 0.187" wire.



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