Installation Instructions

Flood Sensor Upgrade for Building Management Systems

Series LF909, 909RPDA

2½" – 10"

⚠ WARNING

THINK SAFETY FIRST

Read this Manual BEFORE using this equipment.

Failure to read and follow all safety and use information can result in death, serious personal injury, property damage, or damage to the equipment.
Keep this Manual for future reference.

⚠ WARNING

You are required to consult the local building and plumbing codes prior to installation. If the information in this manual is not consistent with local building or plumbing codes, the local codes should be followed. Inquire with governing authorities for additional local requirements.

NOTICE

Use of the SentryPlus Alert® technology does not replace the need to comply with all required instructions, codes, and regulations related to the installation, operation, and maintenance of the backflow preventer to which it is attached, including the need to provide proper drainage in the event of a discharge.

Watts is not responsible for the failure of alerts due to connectivity issues, power outages, or improper installation.

Monitor relief valve discharge with smart and connected technology for flood protection. When excessive relief valve discharge occurs, the flood sensor energizes a relay signaling flood detection and triggers real-time notification of potential flood conditions through the building management system.

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Components Needed

You need the appropriate-sized flood sensor for your valve assembly and activation module with conductor cable, power adapter, and ground wire. If you need help obtaining any component, speak with your account representative.

Activation module with an 8' 4-conductor cable

Flood sensor and mounting bolts, valve sizes 2½" to 3"

24V DC power adapter (requires a 120VAC, 60Hz, GFI-protected electrical outlet)

Flood sensor and mounting bolts, valve sizes 4" to 10"

Ground wire

Requirements

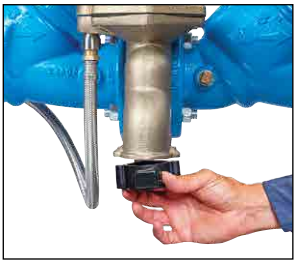
- ½" Wrench for flood sensor size 2½" to 3" or 9⁄16" wrench for flood sensor size 4" to 10"
- Power source, ranging from 12V to 24V
- #2 Phillips screwdriver
- Wire stripper

NOTICE

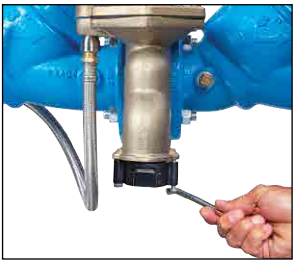
When installing an air gap, attach the air gap brackets directly onto the flood sensor.

Installing the Flood Sensor

Use the appropriate sized wrench to install the flood sensor.



1. Position the flood sensor on the relief valve.



2. Insert and tighten the bolts to secure the flood sensor to the valve. Do not overtighten.

Mounting the Activation Module

Attach the activation module to the flood sensor on the relief valve of the reduced pressure zone assembly. Then wire the module to the relay box.

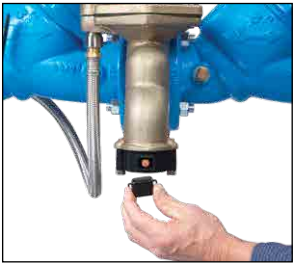
The activation module is designed to receive a signal from the flood sensor when a discharge is detected. If the discharge meets the conditions of a qualifying event, the normally open contact is closed to provide a signal to the relay box, energizing the ACV Solenoid bypass valve (normally closed) to open and the main valve to close.

Custom Flood Sensor Settings

Activation module switch settings can be customized to specify the wet threshold (sensitivity to water discharge) and the timer delay (duration before alarm). Scan the QR code for more information.

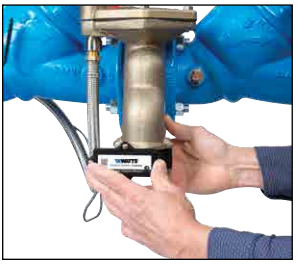
NOTICE

Retain the dust cover to protect the flood sensor when the activation module needs to be removed or replaced.



1. Remove the dust cover from the sensor.

2. Press the sensor activation module onto the sensor.



3. Check that the module is fully seated to seal the O-ring and to make electrical contact.

NOTICE

For more information on the SentryPlus Alert kit, refer to the ES-FS-ConnectionKit specification at watts.com.

Linking the Module Cable to the BMS Controller

The 4-lead conductor module cable should be attached to the BMS controller to transmit a normally open contact signal and provide power to the activation module. The contact signal closes when a discharge is detected. Follow the procedures below to connect the cable, ground wire, and power adapter (optional) to the controller. (See the wiring diagram for visual reference.)

Wire the cable to the controller

1. Use the wire stripper to cut away enough insulation to expose 1 to 2 inches of the conductor wires.
2. Insert the white and green wires into the input terminal. Insert the red wire in the power terminal. (A power source ranging from 12V to 24V is required.)

NOTICE

Either the BMS power source (ranging from 12V to 24V) or the 24V DC power adapter provided can be used. With each power source, an earth ground connection is required.

If using the optional power adapter, skip to the next set of instructions. Be sure to use the ground wire provided if there is no other earth ground on the BMS controller.

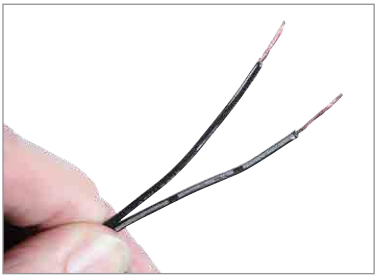
3. Insert the red wire in the power terminal. (A power source ranging from 12V to 24V is required.)
4. Insert the black wire in the ground terminal.

⚠ WARNING

The earth ground must be connected to the BMS controller before the flood sensor is put in operation.

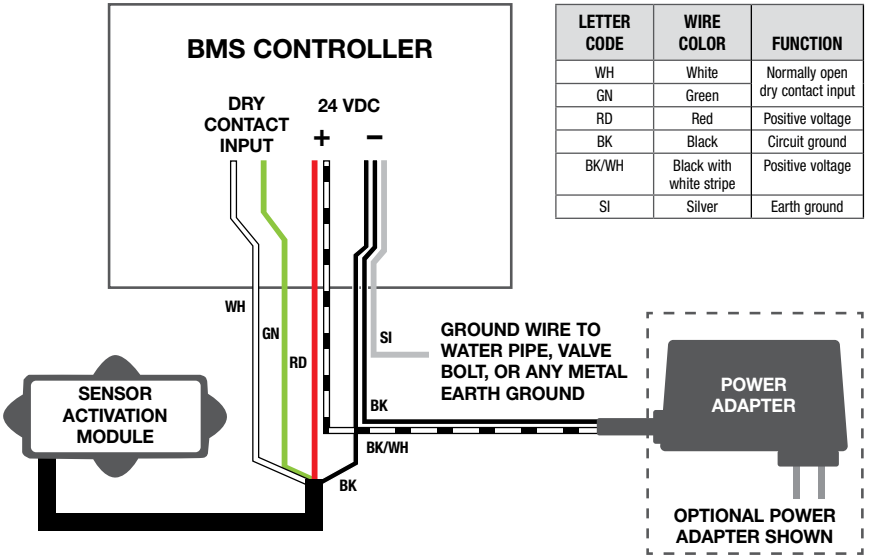
Connect the 24V DC power adapter (optional)

Distinguish the positive wire from the negative one. The positive wire has white stripes and must be inserted into the power terminal; the negative wire, into the ground terminal.



1. Connect the positive power adapter wire (black with white stripe) to the red wire of the activation module cable and insert the wires into the power terminal.
2. Connect the negative power adapter wire (black with no stripe) to both the black wire of the activation module cable and the ground wire (if needed) then insert the wires into the ground terminal.
3. Plug the power adapter into a 120VAC, 60Hz, GFI-protected electrical outlet.

The flood sensor LED is steady green when the unit is ready.



LETTER CODE	WIRE COLOR	FUNCTION
WH	White	Normally open dry contact input
GN	Green	
RD	Red	Positive voltage
BK	Black	Circuit ground
BK/WH	Black with white stripe	Positive voltage
SI	Silver	Earth ground

Notes

Limited Warranty: Watts Regulator Co. (the "Company") warrants each product to be free from defects in material and workmanship under normal usage for a period of one year from the date of original shipment. In the event of such defects within the warranty period, the Company will, at its option, replace or recondition the product without charge.

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The remedy described in the first paragraph of this warranty shall constitute the sole and exclusive remedy for breach of warranty, and the Company shall not be responsible for any incidental, special or consequential damages, including without limitation, lost profits or the cost of repairing or replacing other property which is damaged if this product does not work properly, other costs resulting from labor charges, delays, vandalism, negligence, fouling caused by foreign material, damage from adverse water conditions, chemical, or any other circumstances over which the Company has no control. This warranty shall be invalidated by any abuse, misuse, misapplication, improper installation or improper maintenance or alteration of the product.

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