

# Engineering Specification

Job Name \_\_\_\_\_  
 Job Location \_\_\_\_\_  
 Engineer \_\_\_\_\_  
 Approval \_\_\_\_\_

Contractor \_\_\_\_\_  
 Approval \_\_\_\_\_  
 Contractor's P.O. No. \_\_\_\_\_  
 Representative \_\_\_\_\_

## SentryPlus Alert® Flood Sensor Connection Kit

**Flood Protection for  
 Reduced Pressure Assemblies**  
**FOR BMS AND CELLULAR COMMUNICATION**

SentryPlus Alert Flood Sensor Connection Kit is an ideal solution for upgrading reduced pressure backflow preventers to include flood protection. The kits are available for select FEBCO assembly series and compatible with building management systems and cellular networks.

### Features

- Installs with no disruption to service
- Detects excessive water discharge from the assembly relief valve
- Activates the flood sensor and provides connectivity to third-party building management systems
- Connects to BMS through dry contact output from the kit (No communication protocol integration required.)
- Activates the flood sensor and provides connectivity to the Watts® Syncta<sup>SM</sup> Cloud IoT platform to issue alerts by email, phone call, and text message
- Is customizable for wet threshold and timer delay

### Contents

#### BMS Flood Sensor Connection Kit

Activation module with 8-foot cable  
 Power adapter, 24V DC  
 Ground wire

#### Cellular Flood Sensor Connection Kit

Activation module with 8-foot cable  
 Cellular Gateway with mounting hardware  
 Power adapter, 24V DC  
 Ground wire



Call customer service if you need assistance with technical details.

ASSEMBLY SERIES	BMS KIT CODE	CELLULAR KIT CODE
825Y, LF825Y, 825YA, LF825YA	88009431	88009432
860 Small, LF860 Small		
LF860 Large, LF866	88009414	88009416
LF880V, LF886V		

### NOTICE

Use of SentryPlus Alert Flood Sensor Connection Kit does not replace the need to comply with all required instructions, codes, and regulations related to the installation, operation, and maintenance of the relief valve 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.

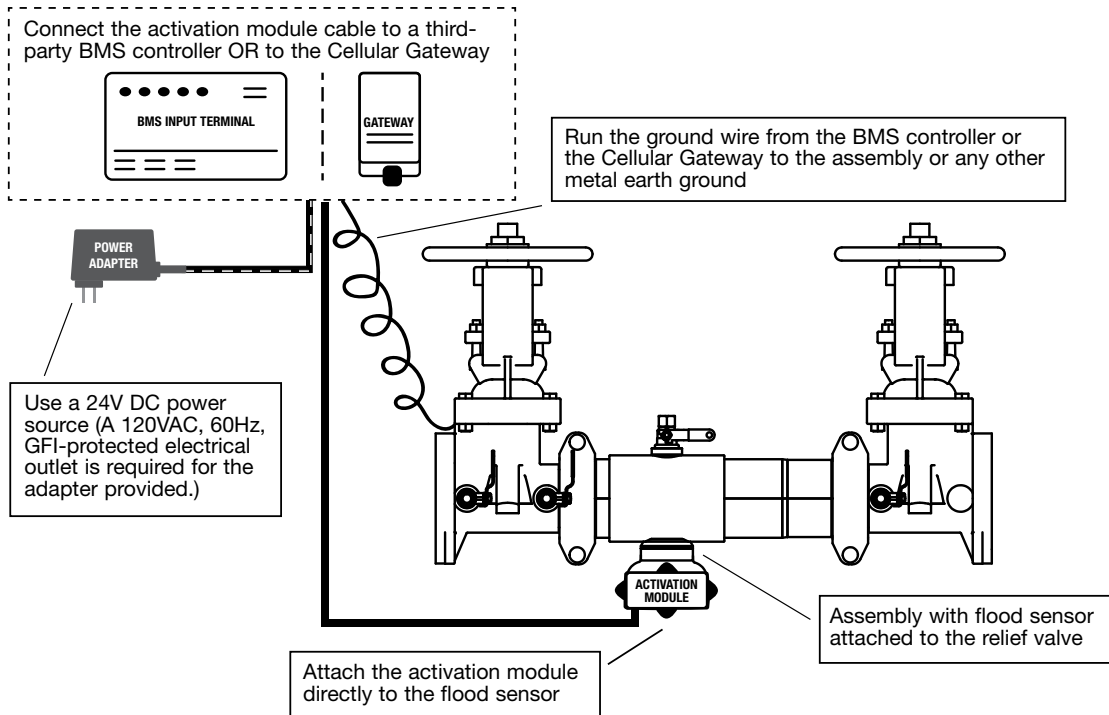
### NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

FEBCO product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact FEBCO Technical Service. FEBCO reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on FEBCO products previously or subsequently sold.



## Typical Installation



## Operation

The SentryPlus Alert system helps protect against property damage resulting from excessive relief valve discharge, which could be worsened by a blocked or overwhelmed floor drain. The discharge may be caused by one of these typical conditions:

- Fouled first check seat caused by dirt, debris, or rocks
- Failed first check spring
- Clogged or blocked relief valve sensing line
- Failed relief valve diaphragm

The sensor connection kit is designed to activate the factory-installed sensor attached to the assembly relief valve. (The sensor is installed on the valve exterior and does not alter valve functions or certifications.) When an excessive discharge occurs, the sensor energizes a relay signaling potential flooding.

The activation module receives 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 BMS or the Cellular Gateway input terminal.

In a BMS configuration, the signal sent to the BMS input may trigger alerts distributed according to the BMS application. In configurations using cellular communication, the sensor relay triggers the Cellular Gateway to communicate with the Watts Syncta Cloud IoT platform. Registered users that are linked to specific assemblies receive alerts by their preferred notification method: email, phone call, or text message.

## Specification

The Watts Flood Sensor Connection Kit shall monitor for excessive relief valve discharge from a Reduced Pressure backflow preventer, and automatically trigger mechanisms that alert users to potential flood conditions.

The BMS connection kit shall include activation module, ground wire, and power adapter. The cellular connection shall include the same components plus Cellular Gateway. Each kit shall be purchased separately from the assembly with flood sensor.

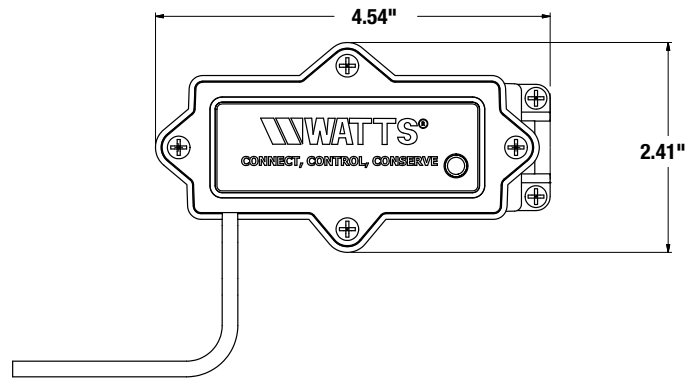
A signal from the factory-installed flood sensor shall be received by the activation module when a discharge is detected. If the discharge meets the conditions of a qualifying event, the normally open contact shall close to relay a signal to the BMS input terminal or to the Cellular Gateway, depending on the configuration in use. The Cellular Gateway shall transmit a signal to the Watts Syncta Cloud IoT platform to issue alerts by user preference of email, phone call, or text message.

The activation module shall include adjustable settings for wet threshold and timer delay. The timer delay shall prevent the alert system from issuing false warnings on intermittent discharges from the relief valve.

## Activation Module

The activation module contains the electronic circuit assembly, interfaces with the flood sensor, and provides connectivity to the BMS input terminal or the Cellular Gateway. Weight: <0.25 lb.

The module is designed with adjustable settings for wet threshold (sensitivity to water discharge) and timer delay (duration before alarm). For more information on custom flood sensor settings, download IS-FloodSensor-Settings 2144.



## Cellular Gateway

The Cellular Gateway is included only in the cellular flood sensor connection kit. The activation module is hardwired to the Cellular Gateway for constant communication between the two devices. In turn, the Cellular Gateway communicates to the Watts Syncta Cloud IoT platform when a qualifying discharge event occurs. Specifically, a signal of potential flood conditions from the Cellular Gateway prompts the Syncta application to alert users by email, phone call, or text message.



## Ground Wire

24 AWG

Solid core, uninsulated, tinned copper wire

RoHS compliant

5 feet



## Power Adapter

Output DC voltage 24V  $\pm$ 2.0%

Output current range 0 ~ 1.04A

Input voltage range 90 ~ 264VAC

Input frequency range 47 ~ 63Hz

Input AC current 0.7A/115VAC 0.35A/230VAC



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