

Job Name _____
 Job Location _____
 Engineer _____
 Approval _____

Contractor _____
 Approval _____
 Contractor's P.O. No. _____
 Representative _____

SentryPlus Alert™

Universal Upgrade Kit

Flood detection and wireless alerts for RPZ backflow preventer installations

The SentryPlus Alert Universal Upgrade Kit is an ideal solution to upgrade existing RPZ backflow preventer and/or LFF113FP ACV installations to include SentryPlus Alert detection and wireless alert technology. The upgrade can be done in-line without any removal of existing valves already installed.

- Detects continuous water discharge from RPZ Backflow
- SentryPlus Alert™ wirelessly alerts user via text, call or email.
- Can be used to upgrade any existing RPZ backflow preventer installation
- Can be connected to a Building Management System (BMS)
- Installed on relief valve discharge line of Reduced Pressure Zone Backflow Preventer
- Uses cellular signal for alerts
- Wireless node can be placed up to 100ft from unit

Contents

EDP 0113209

- Control Box
- Wireless Node
- Flood Sensor
- 2" Tee (PVC) with NPTF threaded end connections (To mount Flood Sensor)

EDP 0113210*

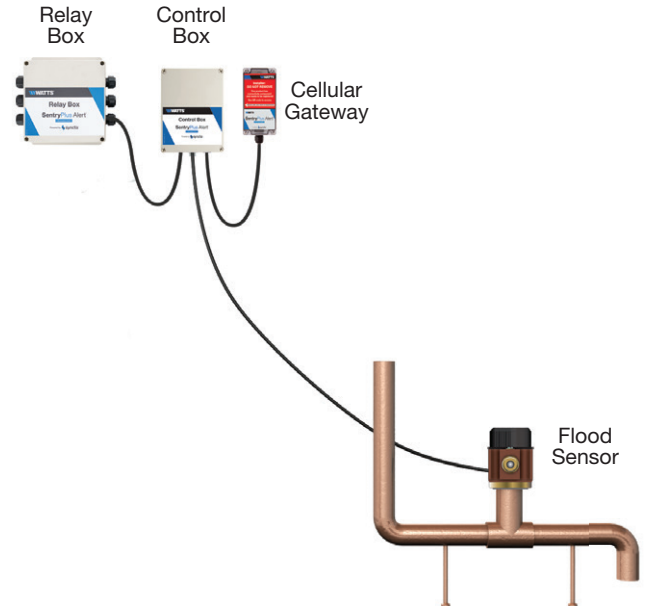
- Relay Box for LFF113FP ACV solenoid

*Relay Box will not fit on existing valve mounting brackets used for the JB113 Junction Box. Contact Watts Customer Service for appropriate valve mounting bracket, or wall mount Relay Box.

NOTICE

Use of the Watts SentryPlus Alert Universal Upgrade Kit does not replace the need to comply with all required instructions, codes, and regulations related to the installation, operation, and maintenance of an RPZ backflow preventer, 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 or power issues.

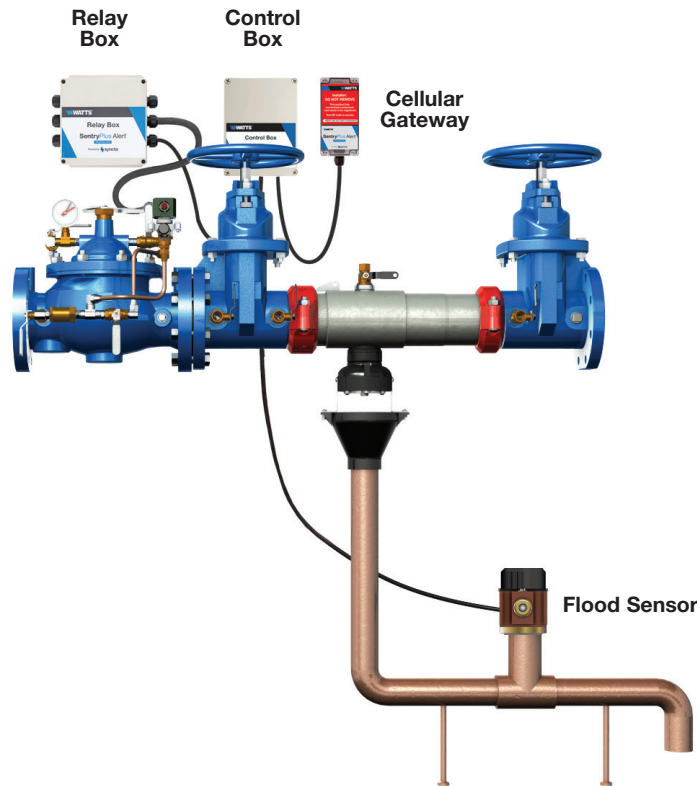


ORDERING CODE	DESCRIPTION
0113209	For existing RPZ/RPDA backflow preventers
0113210	For existing LFF113FP Flood Protection ACV (in conjunction with 0113209)

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.

Typical Installation



** Shown installed with a Watts 957-OSY backflow preventer and a Watts LFF113FP Flood Protection Shutdown Valve*

Operation

The SentryPlus Alert™ system detects helps to protect against a catastrophic property damage that can occur due to Relief Valve discharge and/or a blocked or overwhelmed floor drain during normal relief valve operation. Typical conditions that may cause continuous relief valve discharge are:

- Fouled First Check Seat due to dirt, debris or rocks
- Failed First Check Spring
- Clogged or blocked Relief Valve Sensing Line
- Relief Valve Diaphragm failure

The SentryPlus Alert™ detects continuous relief valve discharge through the drain pipe using the flood sensor. An adjustable time delay in the control box avoids accidental triggering of an alert due to intermittent or nuisance relief valve discharge. Once the amount of time set has passed, it will trigger the cellular gateway to send a cellular signal to communicate with the Syncta™ platform.

Registered devices will receive an alert in chosen format, any combination of phone call, text message, or email.

When the flood sensor no longer senses flow, another wireless signal will be sent to registered devices indicating that the flood condition has ceased.

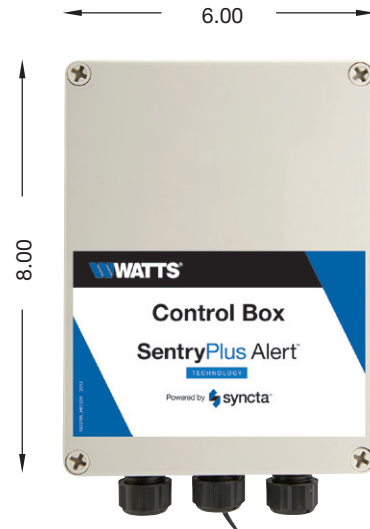
The SentryPlus Alert™ system can be integrated into the LFF113FP flood protection valve. It is a normally open valve installed upstream of the RPZ backflow preventer. The Relay Box will be signaled by the Control Box at the same time it signals the wireless node. The relay box is connected to the LFF113FP solenoid valve to provide automatic shutoff for flood protection. Automatic shutoff valve must be manually reset. For more information please refer to the LFF113FP ES sheet on watts.com

Control Box

The Control Box is equipped with an adjustable time delay.

The Control Box is equipped with an adjustable time delay to avoid triggering an alert due to intermittent or nuisance relief valve discharge. The time delay is adjustable from 0 seconds to 120 seconds. See SentryPlus Alert Upgrade Kit Installation and Operation Manual for more information.

The Control Box can be wired to the Relay Box for use with a Watts LFF113FP. The LFF113FP is normally open and closes after the set time delay when continuous relief valve discharge through the drain pipe is sensed by the Flow Sensor. Automatic shutoff valve must be manually reset. For more information please refer to the LFF113FP ES sheet on watts.com



Cellular Gateway

Watts Control Box is hardwired to the Cellular Gateway and are in constant communication with each other. The Cellular Gateway communicates via cellular network with Watts Syncta® Cloud IoT platform. In-case of an abnormal continuous discharge from the Relief valve, the unit wirelessly notifies user alerting them of the fault condition.

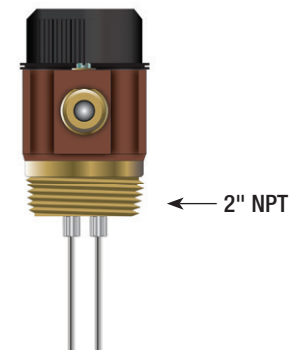
Cellular Gateway is a remote mounted, electrically powered and receives power via connection to the Control Box. It can be mounted up to 100ft away from the Control Box.



Front View

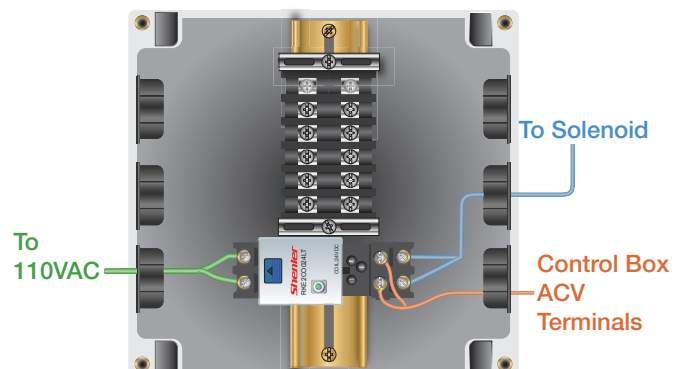
Flood Sensor

The Flood Sensor is installed in the discharge piping from the RPZ relief valve. If the Flood Sensor detects water in the discharge piping, it will signal the Control Box to send wireless alerts and/or close the LFF113FP valve.



Relay Box

The Relay Box contains the relay used to operate the LFF113FP Solenoid to close the valve. It receives the signal from the Control Box, and is wired directly to the Solenoid.



Specifications

The Watts Universal Upgrade Kit shall monitor for continuous relief valve discharge from a Reduced Pressure Zone Backflow Assembly, and automatically warn if the RPZ relief valve begins to discharge. A Time Delay supplied in the Control Box shall prevent the valve from issuing false warnings on intermittent discharges from the RPZ relief valve. If continuous Relief Valve discharge occurs, the Flood Sensor installed horizontally in the RPZ Relief Valve discharge piping shall send a signal to the Control Box.

The Control Box connects to Cellular Gateway for wireless communication alerting the user via text, phone or email. This communication is via cellular network using Watts Syncta Cloud IoT platform. Cellular Gateway is remote mounted. It can be mounted up to 100ft away from the Control Box. Additionally, an extra set of Remote Trip Indication terminals allow users to get remote alarms at their Building Management System (BMS) / PLC controller in the Control Room.

Additionally there is an optional Relay Box for connection to a LFF113FP Automatic Shutdown ACV. Relay box shall be a remote mounted, 120VAC powered unit. It shall be connected to the Control Box, which will provide the signal to the Relay Box to trigger shutdown of the LFF113FP ACV. Relay Box shall be connected to the shutdown solenoid on the LFF113FP ACV.

The Control Box and Cellular Gateway shall be field mounted. The Flood Sensor shall be provided with the Upgrade Kit package and shall be field installed in a horizontal position in the RPZ Relief Valve discharge piping.

Vertical installation of the Flow Sensor shall not be acceptable.

