

Engineering Specification

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

Freeze Sensor Connection Kit

For Wi-Fi and BMS/IMS Freeze Alerts

⚠ WARNING

Freeze sensor solely provides alerts about a possible freeze event and cannot prevent a freeze event from occurring. User action is required to prevent freeze conditions from causing product and/or property damage.

SentryPlus Alert® Freeze Sensor Connection Kit for activating a valve-mounted or standalone sensor and triggering alerts at low and freezing temperatures. Select backflow preventers come with preinstalled freeze sensors; others can be upgraded using the sensors supplied in this kit. Alerts are relayed through the Wi-Fi enabled system and distributed by email or SMS after setup. Optionally, low and freezing temperature conditions trigger a relay output when the kit is linked to a building management system or irrigation controller that has a suitable (NC/NO) input. Alerts are distributed by the BMS or irrigation controller application.

Features

- Built-in Wi-Fi function to communicate freeze alerts directly to the user, eliminating the need for a third-party controller
- Switched output relay compatible with building management system or irrigation controller that has a suitable (NC/NO) input
- Included standalone sensor can be installed at a backflow preventer assembly or any water-carrying installation vulnerable to freezing conditions

Contents

Freeze sensor in mounting clip
 Standalone sensor
 Activation module
 Wire nuts (2)
 DC 24 V power adapter
 Mounting hardware packet
 Zip tie
 Quick Start Guide



Call customer service if you need assistance with technical details.

ORDERING CODE	BRAND
88009515	Watts
88009516	FEBCO
88009529	Ames Fire & Waterworks

NOTICE

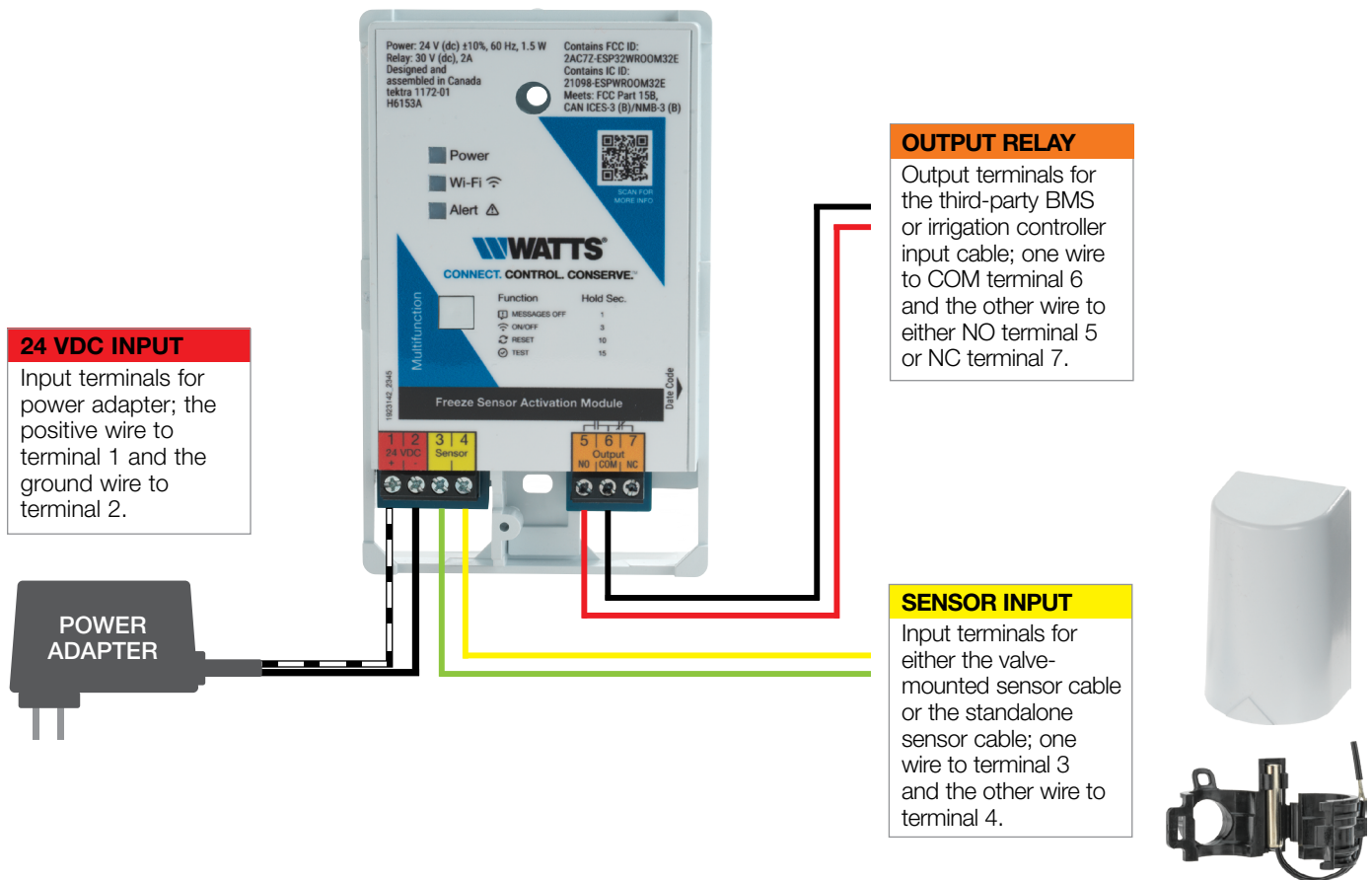
The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation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

NOTICE

Use of the freeze sensor does not replace the need to comply with all required instructions, codes, and regulations related to installation, operation, and maintenance of this product, including the need to provide protection against a freeze event.

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

Wiring Schematic



Operation

The system measures temperature and alerts facility personnel when freeze conditions can cause damage to equipment. The Freeze Sensor Connection Kit includes two temperature sensors, allowing the user to choose the one more suitable for installation. One sensor can be mounted to a valve assembly; the other, installed as a standalone unit at or near any water-carrying application vulnerable to freezing conditions. (The valve-mounted sensor does not alter valve functions or certifications.)

When the kit is installed with either sensor, the sensor is activated and wired to create an alert system. The activation module is designed with a relay-controlled temperature and time delay. As temperature measurements fall below the low temperature threshold of 37°F and below the freeze temperature threshold of 32°F, the Wi-Fi enabled system relays a signal after 2 hours to the Smart Freeze Alert cloud service (included) to distribute alerts directly to users. Reminders are sent every 12 hours.

Optionally, the kit can be linked to a building management system or an irrigation controller to distribute alerts by the BMS or irrigation controller application after temperature continues to be measured below either threshold for 2 hours. Reminders are sent every 12 hours.

Specification

The kit shall be capable of activating the valve-mounted sensor or the standalone sensor. The activation module shall include a Wi-Fi function.

When the kit is installed with either sensor, the sensor shall be activated and wired to create an alert system. As temperature measurements fall below 37°F and below 32°F, the Wi-Fi enabled system relays a signal after 2 hours to the Smart Freeze Alert cloud service (included) to distribute alerts. Reminders are sent every 12 hours.

Optionally, the kit can be linked to a building management system or an irrigation controller to distribute alerts by the BMS or irrigation controller application after temperature continues to be measured below either threshold for 2 hours. Reminders are sent every 12 hours.

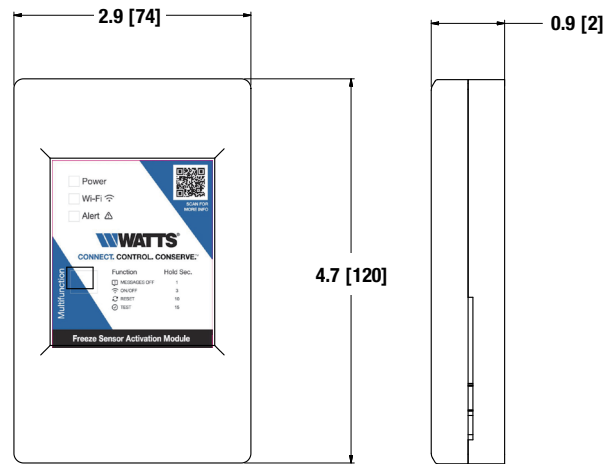
The kit shall include freeze sensor in mounting clip, tekmar Outdoor Sensor 070, activation module, two wire nuts, mounting hardware packet, zip tie, and power adapter. The packet shall include 2 x Screw Type AB #6 x 1" and 2 x Drywall anchors for mounting the activation module, plus Screw Type AB #6 x 1" Phillips/slotted pan head, zinc-plated for mounting the standalone sensor. The kit shall be purchased separately from any valve assembly. The kit shall be Watts Freeze Sensor Connection Kit.

Activation Module

The mountable activation module contains the electronic circuit assembly, interfaces with the valve-mounted sensor or the standalone sensor, provides connectivity to the BMS or irrigation controller input terminal, and is compatible with Wi-Fi networks. Weight: 0.2 lb.

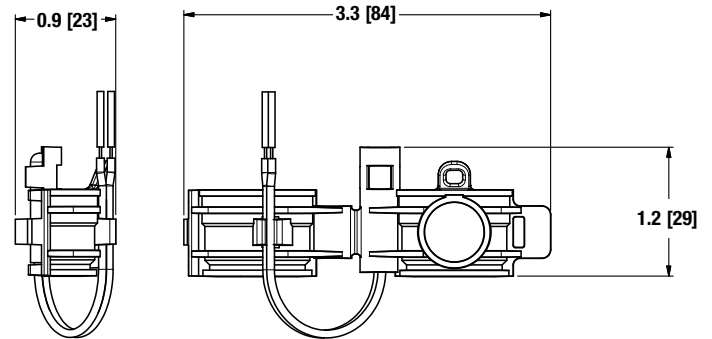
- LEDs indicate the status of power to the unit, Wi-Fi, and alerts.
- Multifunction button contains four operations: Messages OFF, Wi-Fi ON/OFF, Reset, and Test.
- Programmed with two thresholds to alert the user when temperature measurements fall below 37°F and below 32°F.
- Designed with Wi-Fi function to transmit messaging directly to the user, through the Smart Freeze Alert cloud service (included). Messaging can be silenced without disabling the Wi-Fi function.

For more information, refer to IS-FZSensorConnectionKit at watts.com.



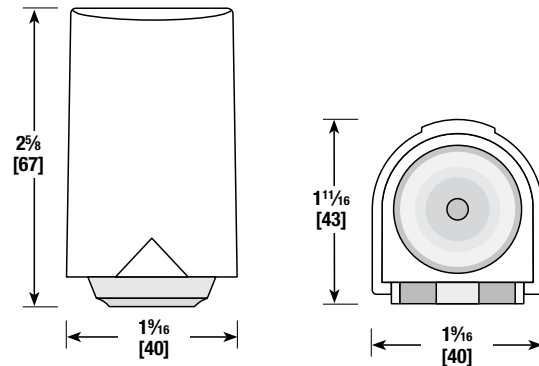
Valve-mounted Freeze Sensor

Thermistor in a mounting clip for attachment to the test cock of a valve assembly. Total weight of sensor and clip: <0.5 lb.



Standalone Sensor

NTC thermistor built into compact, UV resistant enclosure. For more information, refer to tekmar Outdoor Sensor 070 at watts.com.



Mounting Hardware

2 x Screw Type AB #6 x 1"

2 x Drywall anchor

Screw Type AB #6 x 1" Phillips/slotted pan head, zinc-plated

Zip tie, 15 in.



Wire Nuts

Two twist-on wire cap connectors

14 to 22 AWG



Power Adapter

Output DC voltage 24V ±2.0%

Output current range 0 ~ 1.04A

Input voltage range 90 ~ 264VAC

Input frequency range 47 ~ 63Hz

Input AC current 0.65A/115VAC 0.25A/230VAC

