

# **Staff Alert Panel**

## **Using the Touchpad Exit Controller**

### **Installation Guide**



3125 North 126th Street, Brookfield, WI 53005  
phone: 800.669.9946 fax: 262.790.1784 [www.rfi.com](http://www.rfi.com)  
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0510-1109-B



# **Staff Alert Panel**

## **Using the Touchpad Exit Controller**

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### **Installation Guide**

**PN 0510-1109-B**  
**Release Date: 06/16/15**

**Users must read this guide before using the product.**

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## Important Warnings

It is important for your facility to implement and enforce the following WARNINGS in order to keep all equipment functioning properly. Disregarding the information and instructions in this document is considered abnormal use and may result in injury or system failure.



### WARNING

**ACCESSORIES (SUPPLIES)**—To ensure patient safety and proper operation of equipment, use only parts and accessories manufactured or recommended by RF Technologies, Inc. Parts and accessories not manufactured or recommended by RF Technologies, Inc. may not meet the requirements of the applicable safety and performance standards.

**Failure to use the components and supplies specified by RF Technologies, Inc. may result in equipment and/or system failure.**



### WARNING

**EXPLOSION HAZARD**—These devices should not be used in the presence of flammable gas mixtures. It should also not be used in oxygen enriched atmospheres.



### WARNING

**INSTALLATION AND CONFIGURATION**—It is the responsibility of the facility to follow the installation instructions carefully, as outlined in the applicable system guides, and to use the components and supplies specified by RF Technologies, Inc. for all installations.

**Failure to use the components and supplies specified by RF Technologies, Inc. may result in equipment and/or system failure.**



### WARNING

**INSTRUCTIONS FOR SET UP AND USE**—It is the responsibility of the facility to follow the instructions for set up and use carefully, as outlined in this manual, and to use the components and supplies specified by RF Technologies, Inc. for set up and use. Do not attempt to use extension cords or other equipment not supplied by RF Technologies, Inc.

**Failure to use the components and supplies specified by RF Technologies, Inc. may result in equipment and/or system failure.**



### WARNING

**PATIENT GENERATED ALARMS**—Do not rely exclusively on patient generated alarms for patient care and safety. The alarm function of equipment in the possession of patients must be verified periodically and regular patient surveillance is recommended.



### WARNING

**PATIENT MONITORING**—The most reliable method of patient monitoring combines close personal surveillance with correct operation of monitoring equipment. It is the responsibility of the facility to periodically check on patients in possession of RF Technologies, Inc.'s equipment (i.e. Pendants, Pull Cords, Control Units) to mitigate risk of inappropriate use of equipment or strangulation and stumbling hazards from cables and cords.

**WARNING**

**PRODUCT WARRANTIES**—Failure to follow the Warnings and Cautions in this guide voids any and all Product Warranties.

**WARNING**

**STATIC DISCHARGE**—Do not touch the conductor portion of any conductor or port. Damage to the device may result.

**WARNING**

**STRANGULATIONS AND TRIPPING HAZARD**—Due to the possibility of strangulation, all cables and cords should be routed away from the patient's throat. Cables and cords must be routed in a way to prevent tripping hazards.

**WARNING**

**SYSTEM INSPECTION**—It is the responsibility of the facility to establish and facilitate a regular inspection schedule for your system. RF Technologies, Inc. recommends quarterly inspections of your system for safety and performance by a qualified RF Technologies, Inc. representative.

To arrange for a quarterly inspection by RF Technologies, Inc., call our Technical Support Department at (800)-669-9946 or (262) 790-1771.

**Failure to provide regular inspection of these products may result in equipment and/or system failure.**

**WARNING**

**SYSTEM MAINTENANCE AND TESTING**—It is the responsibility of the facility to establish and facilitate a regular maintenance schedule for your system, as outlined in the applicable system guides. This includes regular inspection, testing, and cleaning. RF Technologies, Inc. recommends monthly maintenance and testing of your system. It is also recommended that your facility keep records of maintenance and test completions.

**Failure to provide regular maintenance and testing of these products may result in equipment and/or system failure.**

**WARNING**

**SYSTEM WIRING**—All permanent supply connections must be done in accordance with National Electric Code, NFPA 70.

**WARNING**

Wiring shall comply with the Standard for Thermoset-Insulated Wires and Cables, UL 44, or the Standard for Thermoplastic-Insulated Wires and Cables, UL 83.

**WARNING**

**USER TRAINING**—Only users who have received adequate training on the use of the system, as outlined in this manual, should use the system. It is the responsibility of the facility to ensure all users have been trained.

**Failure to adequately train employees may cause system failure due to user error. In addition, incorrect use of the equipment may also result in system failure.**

**WARNING**

**WORN OR DAMAGED PARTS**—If the control unit pads or cables are worn or damaged, you must have the product serviced. For more information, see the section entitled “Service and Return.”

**WARNING**

All RF Technologies transmitters, pendants and banding material “PRODUCT” have been determined to be MR Unsafe as defined by ASTM F 2503-05. Use of “PRODUCT” in a Magnetic Resonance Imaging system will cause injury to patients and staff, MR system malfunction or “PRODUCT” malfunction. Do not bring “PRODUCT” into the MR system area and follow your facilities policies to classify and label “PRODUCT” as MR Unsafe.

**CAUTION**

**DISPOSAL**—At the end of their service life the products described in this manual, as well as accessories (i.e. lithium batteries, banding material, disposable pads, etc.), must be disposed of in compliance with all applicable federal, state and local guidelines regulating the disposal of products containing potential environmental contaminants. Dispose of the packaging material by observing the applicable waste control regulations.

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# Preface

## Overview

This guide provides detailed information about a component of the 9450 System. It provides detailed instructions about installing the component as well as specific requirements. This guide focuses on the local installation of the Staff Alert Panel. For information on installing the 9450 system, including integration with the Staff Alert Panel, please reference the Ethernet and 9450 Device Network Installation Guide (0510-1013).

The 9450 System monitors doors, elevators, hallways, and stairwells, to assist staff in monitoring patients in a facility. A small Transmitter is placed on the ankle or the wrist of a patient. If a Transmitter is detected in an Exit Alarm Zone, an alarm sounds at the exit. Depending on which equipment you have installed, the 9450 System can automatically lock doors, deactivate elevators, and activate remote cameras.

In addition, if the 9450 System in your facility includes computers, an alarm also sounds at a Central Server and its network of Clients. The Central Server and Clients also identify which patient sounded the alarm and the exit where the alarm occurred.

The 9450 System Cut Band Feature Option provides further security by alerting staff if a Transmitter band is tampered with or cut. The Staff Alert Panel provides a redundant alarm notification if a band is cut, a door is breached, or if the system is tampered with.



**WARNING:** The 9450 system is designed and intended to work in conjunction with a facility's overall patient security program, including reasonable operating policies and procedures. The 9450 system, by itself, cannot prevent the mismatch, abduction or elopement of patients.

## Intended Audience

The Staff Alert Panel Installation Guide is intended for users who install and configure the 9450 System. It includes detailed information about the 9450 System, the Staff Alert Panel, how to wire the Staff Alert Panel to the 9450 System, and the specifications of the Staff Alert Panel.

## Additional Detailed Documentation

Documentation for the system is available in Portable Document Format (PDF) on the System Documentation CD-ROM. Please contact your RF Technologies sales representative for CD ROMs.

## **Contact Information**

For more information about RF Technologies, Inc. products, go to [www.rft.com](http://www.rft.com). For technical support, contact (800) 669-9946 or (262) 790-1771. For questions or comments about documentation, contact the RF Technologies Technical Publications team at [techpubs@rft.com](mailto:techpubs@rft.com).

## **Product Warranty**

Product Warranty information can be found on the System Documentation CD-ROM or with your original system proposal and invoice.

# CHAPTER 1

## Installing the Staff Alert Panel

### Introduction

The Staff Alert Panel receives alarm signals from Touchpad Exit Controllers (TEC) and Alarming Band Receivers and indicates with a tone and a red LED that an alarm has occurred. In the space next to each red LED, you can affix a label identifying the zone or device that issued the alarm. If your facility requires the Staff Alert Panel to be visible, it must be located on a wall near the Nurse's Station; it can be located elsewhere such as a security office, or a phone operator room.

This chapter provides detailed instructions about mounting, installing and, wiring the Staff Alert Panel to the 9450 System.

### Mounting the Staff Alert Panel

You can flush mount or surface mount the Staff Alert Panel. Use the following steps to mount the Staff Alert Panel.

#### To surface mount the Staff Alert Panel



**WARNING:** When installing a product, you must follow standard, accepted safety practices, such as wearing safety glasses.

1. Holding the empty surface-mount enclosure against the wall, mark out the four mounting holes at the back of the enclosure.
2. Drill holes where you made the marks.



**WARNING:** Before cutting openings or drilling holes through walls, you must verify that you will not strike any wiring.

3. Line up the holes at the back of the enclosure with the newly drilled holes.

- Using four drywall screws, mount the enclosure to the wall. If the screws will not hit studs, use drywall anchors (not included).

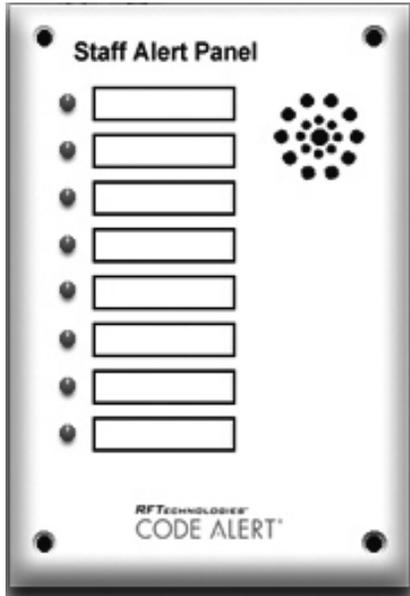


FIGURE 1.1: 9450 Staff Alert Panel

#### To flush mount the Staff Alert Panel



**WARNING:** When installing a product, you must follow standard, accepted safety practices, such as wearing safety glasses.

- Holding the empty enclosure against the wall, mark out the area around the enclosure.
- Using a drywall hole saw, cut out the area where the enclosure is to be placed.  
Be sure that the area is only as big as the enclosure or the clamps will not attach securely to the wall.



**WARNING:** Before cutting openings or drilling holes through walls, you must verify that you will not strike any wiring.

- Place the clamps in the enclosure and insert the unit into the wall.
- Tighten the clamps using the provided screws.

## CHAPTER 2

# Wiring the Staff Alert Panel

## Wiring Devices to the Staff Alert Panel in a Standalone Configuration

**NOTE:** To integrate the Staff Alert Panel into a computer based configuration, reference the Ethernet and 9450 Device Network Installation Guide (0510-1013).

After you mount the Staff Alert Panel, you must connect the Touchpad Exit Controllers and Alarming Band Receivers to the Staff Alert Panel. If the system is not controlled by a Server, multiple Touchpad Exit Controllers can be connected to represent one Exit Alarm Zone on the Staff Alert Panel. If any one of the Touchpad Exit Controllers in the zone issues an alarm, only one LED, representing one zone is illuminated on the Staff Alert Panel. One patient station (Pull Cord or Nurse Call Jack and Cord).



**WARNING:** You must verify that the 9450 System's Central Power Supply is OFF before wiring any system components. Failing to do this may result in injury or death.

Use the following steps to wire 9450 devices directly to the Staff Alert Panel.

### To wire Touchpad Exit Controllers to the Staff Alert Panel

1. When connecting a Touchpad Exit Controller directly to the Staff Alert Panel, use a single Cat5e or a single 22/4 cable.
2. Connect one conductor of the wire pair to the terminal labeled STAFF ALERT C2 on the Touchpad Exit Controller, and to the appropriate Common terminal on the Staff Alert Panel.
3. Connect the other conductor of the wire pair to the terminal labeled STAFF ALERT NC2 on the Touchpad Exit Controller and to the appropriate Zone terminal on the Staff Alert Panel.

**NOTE:** All unused inputs on the Staff Alert panel must be jumpered to common. Any zones not jumpered to common will alarm on power up. The STAFF ALERT connection is a normally closed (N.C.), dry contact. Loss of power to the unit will drop out the relay which will open the contact, causing an alarm condition at the Staff Alert Panel.

- The Staff Alert Panel must receive its power from the Central Power Supply.

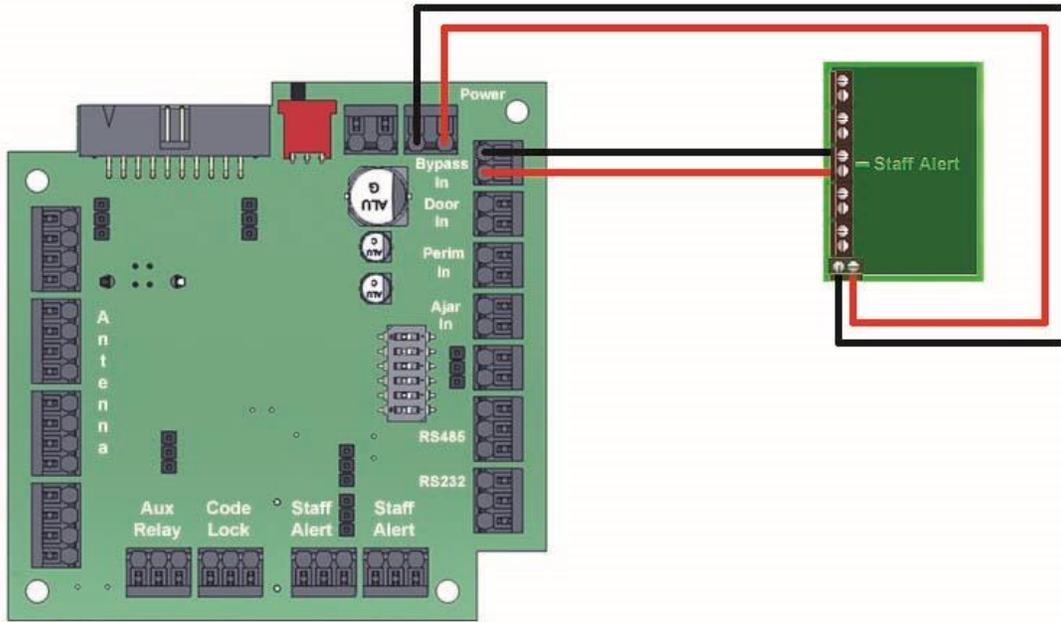


FIGURE 2.1: Wiring the Touchpad Exit Controller to the Staff Alert Panel

#### To wire the Alarming Band Receiver to the Staff Alert Panel

- Connect the Alarming Band Receiver to the Staff Alert Panel or another device using 22-gauge, 4-conductor stranded wire at the RLY OUT terminal.

The RLY OUT connection is a Normally Closed (NC), dry contact. Loss of power to the unit drops out the relay which opens the contact, causing an alarm condition at the Staff Alert Panel. Multiple receivers can be connected together to represent one zone on the Staff Alert Panel. If any one of the receivers in the zone issues an alarm, only one light or zone is lit on the Staff Alert Panel.

#### To wire the Staff Alert Panel to the Central Power Supply

- Use 16AWG 2-conductor cable to connect the Staff Alert Panel Power terminals to the 9450 System Central Power Supply.

However, if the Staff Alert Panel is remotely located and is inconvenient to wire to the Central Power Supply, a 12-16 VAC Class 2 transformer can be used instead. In this case, locate the transformer in a place where it will not be disturbed.

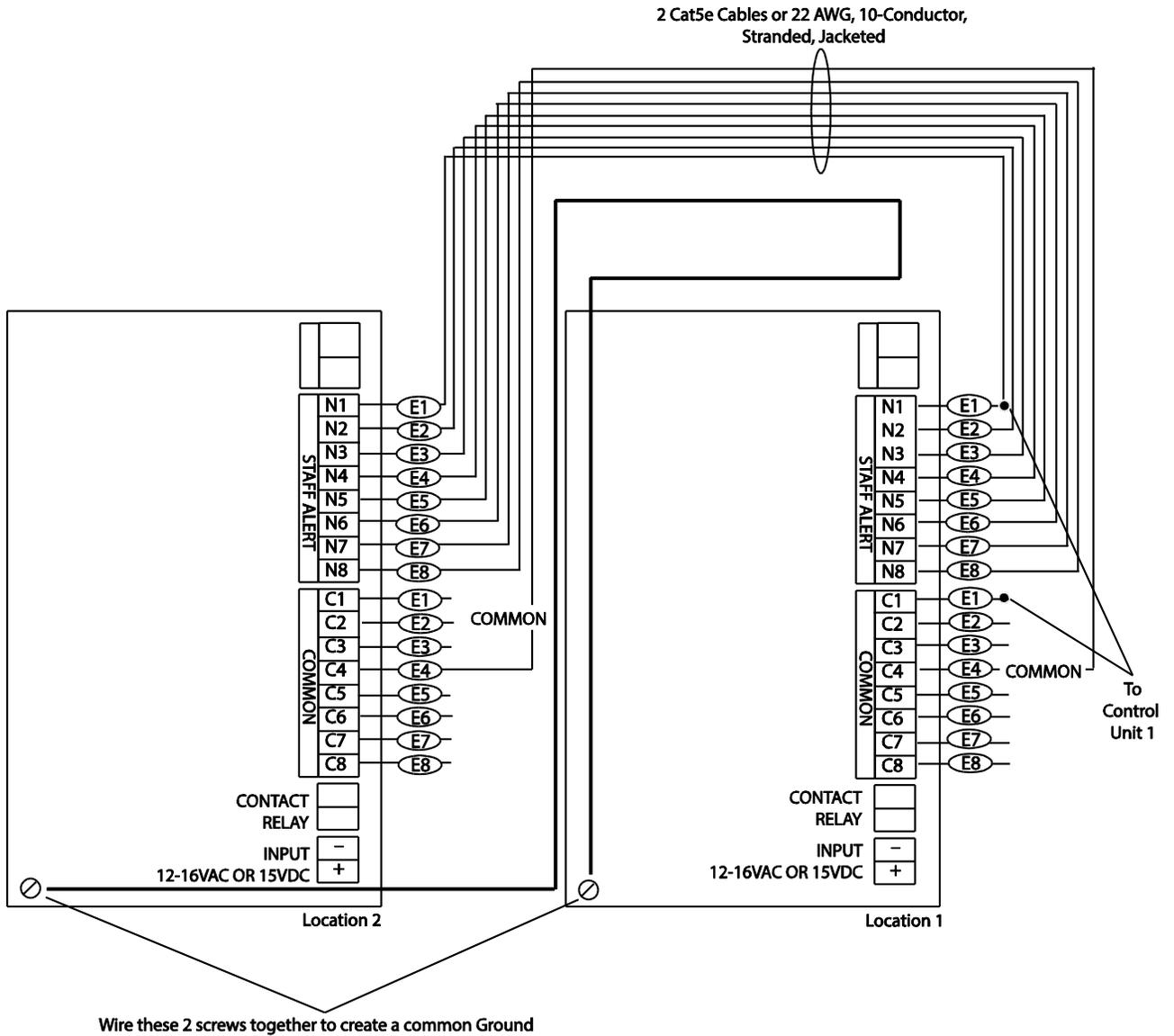
#### To wire an external alarm annunciator

- The relay output contacts signal when any zone is in alarm. The output contacts are Normally Open dry contacts that close during an alarm.

**NOTE:** Only UL listed devices are supported.

## Wiring Two Interconnecting Staff Alert Panels

It is possible to install two Staff Alert Panels in separate locations, that will receive signals from the same Control Units. The Staff Alert Panels may be connected using 22 AWG, 10-conductor, stranded, jacketed wire. Run the wires according to the diagram below.



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## CHAPTER 3

# Operating, Testing and Troubleshooting

## Operating the Staff Alert Panel

### Power Switch

The Staff Alert Panel must have its Power Switch set to the ON position. The Power Switch is located along the right edge of the circuit board.

### Tone and Volume Adjustments

Along the top edge of the circuit board are two adjustment potentiometers for adjusting the volume and tone marked as VOL and TONE. The Volume Pot adjusts the output level of the panel's alarm buzzer. The Tone adjustment varies the pitch of the alarm buzzer. The alarm buzzer sounds whenever any of the alarm zone inputs become active.

### Active LED

The front of the Staff Alert Panel includes a green LED marked as ACTIVE. This indicator is continuously illuminated when the Staff Alert Panel is operational. The indicator flashes when any of the alarm zones are active.

### Zone LED's

The front of the Staff Alert Panel includes eight red LEDs. Each LED represents one alarm zone. A Zone LED is illuminated continuously when an alarm zone is active.

### Relay Output

A set of relay contacts, marked as RELAY, is available through a terminal block on the circuit board. The relay output contacts signal when any of the alarm zones are active. The state of the relay output contact switches from Normally Open to Closed during an alarm.

A fully configured 9450 System includes Touchpad Exit Controller(s) and Alarm Receivers/Controller(s). Due to the discharge feature within the Server software, alarm indications for these are different. A Touchpad Exit Controller always signals its alarm condition on its Staff Alert Panel relay output contacts. However, the Alarming Band Controller or Receiver only signal a cut band alarm on its Staff Alert relay output contacts when it is not in regular communication with the Server.

### Unused Zones

On the 9450 Staff Alert Panel all the alarm zones must be wired since the system is supervised, meaning, it expects each zone to have a closed loop circuit. Unused alarm zone connections must be wired from the zone terminal directly to the Common terminal.

## Testing the Staff Alert Panel

Prior to activating the 9450 System, it is important to test the overall functionality of each component and its wiring, including the Staff Alert Panel.



**CAUTION:** You must test all Staff Alert Panels prior to use to verify proper operation. Failure to test the Staff Alert Panels before use can result in system failure and/or a mismatch, abduction, or elopement. In addition, failure to test Staff Alert Panels voids the RF Technologies Product Warranty.

### To test the Staff Alert Panel

1. For each Alarm Zone, go through each Touchpad Exit Controller and Alarming Band Receiver individually to ensure proper alarm signaling. To do this:
  - a. Switch the power off momentarily on the device to simulate an alarm condition. The Alarm Condition is signaled by the Staff Alert Panel for each device monitored.

## Troubleshooting the Staff Alert Panel

The following section provides detailed information about troubleshooting the Staff Alert Panel. The table provides possible issues and solutions. If you have consistent issues with the system, contact RF Technologies, Inc. Technical Support at 1-800-669-9946.

Issue	Solution
No active light	Verify power.
No Volume during alarm	Verify that the volume control is not all the way down.
Alarm lights when devices are not in alarm	Do the following: <ol style="list-style-type: none"> <li>1. Verify unused zones are jumpered out.</li> <li>2. Verify that multiple devices are wired in a closed “series” circuit.</li> </ol>
Power switch does not turn off the SAP	Do the following: <ol style="list-style-type: none"> <li>1. Verify there is no DC power on the incoming pair of wires.</li> <li>2. Verify polarity of incoming pair of wires.</li> </ol>

**CHAPTER 4****Staff Alert Panel Specifications****Specifications**

<b>Staff Alert Panel</b>	
Size	6.5 x 4.5 x 2.25 inches
Weight	1 lbs
Color	White
Composition	Steel Faceplate and Enclosure
Power	POE (Power Over Ethernet) injector or POE Router
Operating Temperature	0-40 degrees Celsius
Display	16 Red Zone lights, 16 Green Zone lights, 1 Red/Green Device Status light
Output Contacts	1 set, NO or NC, 2A at 30VDC
Wiring	Contacts: 22 AWG 4-conductor cable
Part Number	9500-0100K (surface mount) 9500-0101K (flush mount)

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