# SFP-2404(E)

## Fire Alarm Control Panel


**NOTIFIER**®
by Honeywell

**Conventional**

## General

The Notifier SFP-2404 and SFP-2404E Fire Alarm Control Panels (FACPs) bring the latest in microprocessor technology to conventional fire controls. The SFP-2404 is compatible with the *i³™* smoke detectors from System Sensor, with drift compensation, maintenance alert, and freeze warning. Automatic synchronization of audio/visual devices with three selections for manufacturer protocol. The Notification Appliance Circuit (NAC) protocol can silence audible devices while strobes continue to flash, using a single pair of wires.

The SFP-2404 is compatible with conventional input devices such as two- and four-wire smoke detectors, pull stations, waterflow devices, tamper switches and other *normally*-open contact devices. Refer to the *Notifier Device Compatibility Document* no. 15378 for a complete list of compatible devices.

***Note:*** *Unless indicated otherwise, the term "SFP-2404" refers to both SFP-2404 and SFP-2404E models.*



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## Features

- Four Style B (Class B) Initiating Device Circuits (IDCs).
- Two Style Y (Class B) NACs.
- Optional module that converts all four IDCs and two NACs to Class A operation.
- 24 VDC.
- *i³™ Technology features*:
  – Drift compensation automatically adjusts detector sensitivity and increases resistance to false alarms caused by dust accumulation.
  – Maintenance Alert LEDs (per zone) warn of excessive dirt accumulation, preventing false alarms (meets NFPA 72 requirements).
  – Detector sensitivity is automatically measured by the detector, which automatically adjusts its sensitivity back to the factory settings when it becomes more sensitive due to contaminants settling in the chamber.
  – Wireless handheld sensitivity meter eliminates the need for voltmeters, magnets, and a physical connection to the detector. The reader displays sensitivity in terms of percent per foot obscuration and provides text status indication.
  – Supervisory LED (per zone) provides warning if a detector senses temperature approaching freezing.
  – Special test protocol and LED indication allows quick test of all detectors without need for a ladder.
- *NAC synchronization features:*
  – Synchronization of standard ANSI audible signals as required by NFPA 72.
  – Synchronization of ADA compliant strobes per NFPA 72.
  – Selectable for System Sensor, Wheelock, and Gentex protocols.
  – Selective Silence feature for manual silence of horns while strobes continue to flash on the same NAC.
  – Alarm verification selectable for each zone.
  – Disable switches provided per zone.
- *NACs programmable for:*
  – Silence Inhibit
  – Auto Silence
  – Strobe Synchronization
  – Selective Silence (horn-strobe mute)
  – Temporal or Steady signal
  – Silenceable or Nonsilenceable

- Silent or audible Walk Test operation mode commanded from the front keypad, with automatic return-to-normal after one hour of inactivity.
- Each zone may be programmed for supervisory or fire; each zone has separate red and yellow LEDs.
- Zone 4 is programmable for combination of tamper supervisory monitoring and waterflow alarm.
- Form-C Alarm, Trouble, and Supervisory relays.
- 3.0 A total usable current.
- 6.0 A total usable current available with optional second transformer.
- *Control buttons:*
  – ACK (Acknowledge)
  – Alarm Silence
  – Reset
  – Walk Test
  – Zone Enable/Disable (one per zone)
- *LED indicators:*
  – Fire Alarm (one per zone)
  – Supervisory (one per zone)
  – Trouble (one per zone)
  – Maintenance (one per zone)
  – AC Power
  – NAC Disable
  – Zone Disable
  – NAC Fault
  – System Trouble
  – Power Trouble
  – Walk Test
  – Alarm Silence
  – Earth Fault (on circuit board)
  – Battery Fault (on circuit board)
  – Charger Fault (on circuit board)
- Piezo sounder for alarm, trouble, supervisory and maintenance.
- Optional plug-in 4XTM transmitter module.
- Optional plug-in 4XZM zone relay module.
- Optional 4XLM transmitter module for RZA-4X remote LED annunciator.
- Optional dress panel.

## Operation

Activation of a compatible smoke detector or any normally-open fire alarm initiating device activates audible and visual signaling devices, illuminates an indicating LED, sounds the piezo sounder at the FACP, activates the FACP alarm relay and operates an optional module used to notify a remote station or initiate an auxiliary control function.

## Specifications

### AC POWER — TB3
- SFP-2404: 120 VAC, 50/60 Hz, 2.3 A.
- SFP-2404E: 240 VAC, 50 Hz, 1.15 A.
- Wire Size: Minimum 14 AWG (2.0 mm²) with 600 V insulation.

### BATTERY (SEALED LEAD-ACID ONLY) — J8
- **Maximum charging circuit**: normal flat charge 27.6 VCD @ 0.8 A.
- **Maximum battery charger capacity:** 18.0 AH battery (two 7.0 AH batteries can be housed in the FACP cabinet. Larger batteries require a separate battery box such as the Notifier BB-17).

### INITIATING DEVICE CIRCUITS — TB3
- Alarm zones 1 - 4.
- Power-limited circuitry.
- Operation: all zones Style B (Class B).
- Normal operating voltage: nominal 20 VDC.
- Alarm current: 15 mA minimum.
- Short-circuit current: 40 mA maximum.
- Maximum loop resistance: 100 ohms.
- End-of-line resistor: 4.7K ohm, ½ watt (P/N 71252).
- Standby current: 4 mA.
- Compatible devices: refer to the *Notifier Device Compatibility Document* no. 15378 for a complete list of compatible devices.

### NOTIFICATION APPLIANCE CIRCUITS — TB2
- Two NACs.
- Power-limited circuitry.
- Normal operating voltage: nominal 24 VDC.
- Maximum signalling current: 2.5 A total with standard transformer 5.0 A total (2.5 A maximum per NAC) with optional transformer.
- End-of-line resistor: 4.7K ohm, ½ watt (P/N 71252).
- Compatible devices: refer to the *Notifier Device Compatibility Document no. 15378* for a complete list of compatible devices.

### FORM-C RELAYS
- Trouble Relay TB5 (fail-safe).
- Alarm Relay TB6.
- Supervisory relay TB7.
- Relay contact ratings: 2.0 A @ 30 VAC (resistive).

### AUXILIARY OUTPUT: RESETTABLE POWER — TB1
- Operating voltage: nominal 24 VDC.
- Maximum available current: 500 mA — appropriate for powering four-wire smoke detectors *(see notes)*.
- Power-limited circuitry.

**Notes:** 1) Refer to the *Notifier Device Compatibility Document* for a complete list of compatible devices.

*2) Total current for nonresettable power, resettable power and two NACs must not exceed 6.0 A for the SFP-2404 (required optional second transformer).*

### CABINET DIMENSIONS
**Door:** 15.342" (38.97 cm) high x 14.667" (37.28 cm) wide x 0.375" (0.95 cm) deep.
**Backbox:** 15.0" (38.10 cm) high x 14.5" (36.83 cm) wide x 3.0" (7.62 cm) deep.

### BACKBOX MOUNTING
The cabinet can be surface mounted. The door is removable during installation by opening and lifting it off the hinges. The cabinet mounts using two key slots at the top of the backbox and two additional 0.25" diameter holes at the bottom.

## Listings and Approvals
- **UL Listed:** S635
- **MEA:** 297-01-E Vol. II
- **CSFM:** 7165-0028:220

## Ordering Information
**SFP-2404:** Four-zone conventional FACP; 120 VAC, 50/60 Hz, 2.3 A.
**SFP-2404E:** Same as above, but 240 VAC, 50 Hz, 1.15 A operation.
**CAC-4:** Class A converter module. Used to convert Style B (Class B) IDC to Style D (Class A) and Style Y (Class B) NAC to Style Z (Class A). The module connects to J1 on the SFP-2404 circuit board.
**4XTM:** Transmitter module.
**4XLM:** LED interface module.
**4XZM:** Zone relay module, 4 form C relay.
**BB-17:** Battery box, required to house two batteries greater than 7 AH to a maximum of 18 AH.
**411/411UD:** Three-input (channels) model **411**, and four-input model **411UD**, dual-line Digital Alarm Communicator/Transmitters (DACTs). Can be used as slave communicators with the FACP.
**TR-1-B:** Optional trim ring for semi-flush mounting.
*A 2-zone version of this panel is also available. See DN-6876.*

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This document is not intended to be used for installation purposes.
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