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SFP-2402 and SFP-2404 2-Zone and 4-Zone Fire Alarm Control Panels

Section: Conventional Fire Alarm Control Panels

GENERAL

NOTIFIER's **SFP-2402** and **SFP-2404** Fire Alarm Control Panels (FACPs) bring the latest in microprocessor technology to conventional fire controls. Both models are compatible with the new **i³™** smoke detectors from System Sensor, and provide advanced features such as drift compensation, maintenance alert, and freeze warning. Automatic synchronization of audio/visual devices is provided, with three selections available for manufacturer protocols. The Notification Appliance Circuit (NAC) protocol includes the ability to silence audible devices while strobes continue to flash, utilizing just a single pair of wires.

The SFP-2402 and SFP-2404 are also 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.

FEATURES

- Style B (Class B) Initiating Device Circuits (IDCs) – two in the SFP-2402, four in the SFP-2404.
- Style Y (Class B) NACs – one in the SFP-2402, two in the SFP-2404.
- SFP-2404 supports an optional module that converts all four IDCs and two NACs to Class A operation.
- 24 VDC, 120 VAC, 50/60 Hz, 2.3 amp operation.
- **i³™ Technology features:**
 - Drift compensation automatically adjusts detector sensitivity and increases resistance to false alarms caused by dust accumulation.
 - Maintenance alert LED (per zone) warns of excessive dirt accumulation, preventing false alarms.
 - Detector sensitivity is automatically measured. The twice-yearly test requirements of NFPA 72 (7-3.2.1) are met without using a ladder or test meter.
 - Supervisory LED (per zone) provides a warning if a detector senses temperatures approaching freezing.
 - Special test protocol and LED indication allow a quick test of all detectors without a ladder.
 - Electronic heat-sensing element provides thermal detection in addition to photoelectronic smoke detection.
- **NAC synchronization features:**
 - Provides synchronization of standard ANSI audible signals as required by NFPA 72 (3-8.4.1.2.3).
 - Provides synchronization of ADA-compliant strobes per NFPA 72 (4-4.4.1).
 - Selectable for System Sensor, Wheelock, or Gentex protocols.
 - Selective Silence feature allows manual silencing of horns while strobes on the same NAC continue to flash.

i³™ is a trademark of System Sensor.



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- **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.
- On SFP-2404, Zone 4 is programmable for combination of tamper supervisory monitoring and waterflow alarm.
- Alarm verification selectable for each zone.
- Each zone may be programmed for supervisory or fire; each zone has separate red and yellow LEDs.
- Disable switches provided for each zone.
- Form-C Alarm and Trouble relays. Form-C Supervisory relay (*SFP-2404 only*).
- 3.0 amps total usable current for SFP-2402 and SFP-2404. With optional second transformer, 6.0 amps total usable current available for SFP-2404.
- Piezo sounder for alarm, trouble, supervisory, and maintenance.

This document is not intended to be used for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice. For more information, contact **NOTIFIER**. Phone: (203) 484-7161 FAX: (203) 484-7118



12 Clintonville Road, Northford, Connecticut 06472



Made in the U.S.A.

- **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*)
- Optional dress panel.
- Optional plug-in 4XTM transmitter module (*SFP-2404 only*).
- Optional plug-in 4XZM zone relay module (*SFP-2404 only*).
- Optional 4XLM transmitter module for RZA-4X remote LED annunciator (*SFP-2404 only*).

OPERATION

Activation of a compatible smoke detector or any normally-open fire alarm initiating device on the system:

- Activates audible and visible signaling devices.
- Illuminates an indicating LED.
- Sounds the piezo sounder at the FACP.
- Activates the FACP alarm relay.
- Operates an optional module used to notify a remote station or initiate an auxiliary control function.

SPECIFICATIONS

AC POWER (TB8):

- **SFP-2402:** 120 VAC, 50/60 Hz, 2.3 A.
- **SFP-2402E:** 240 VAC, 50 Hz, 1.15 A.
- **SFP-2404:** 120 VAC, 50/60 Hz, 2.3 A.
- **SFP-2404E:** 240 VAC, 50 Hz, 1.15 A.
- **Wire size:** minimum 14 AWG (2.08 mm²) with 600-volt insulation.

BATTERY (J8):

Sealed lead-acid batteries *only*.

- **Maximum charging circuit:** 27.6 VDC @ 0.8 amp for normal flat charge.
- **Maximum battery charger capacity:** 18 AH battery.
NOTE: *two 7 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 and 2 (*SFP-2402 and SFP-2404*). Alarm Zones 3 and 4 (*SFP-2404 only*). Power-limited circuitry.

- **Operation:** All zones Style B (Class B).
- **Normal operating voltage:** 22 VDC nominal.
- **Alarm current:** 15 mA minimum.
- **Short-circuit current:** 40 mA maximum.
- **Maximum loop resistance:** 100 ohms.

- **End-of-line resistor:** 4.7 K ohm, 1/2 watt (P/N 71252).
- **Standby current:** 4 mA.

Refer to *NOTIFIER Device Compatibility Document*, no. 15378, for Listed compatible devices.

NOTIFICATION APPLIANCE CIRCUITS (TB2): One NAC on SFP-2402, two NACs on SFP-2404. Power-limited circuitry.

- **Normal operating voltage:** 24 VDC nominal.
- **Maximum signaling current:** 2.5 amps total with standard transformer; 5.0 amps total (2.5 maximum per NAC) with optional transformer (*SFP-2404 only*).
- **End-of-line resistor:** 4.7 K ohm, 1/2 watt (P/N 71252).
Refer to *NOTIFIER Device Compatibility Document*, no. 15378, for Listed compatible devices.

FORM-C RELAYS: TB5 trouble relay (fail-safe); **TB6** alarm relay; **TB7** supervisory relay (*SFP-2404 only*).

- **Relay contact ratings:** 2.0 amps @ 30 VAC (resistive).

AUXILIARY OUTPUTS

RESETTABLE POWER (TB1): Power-limited circuitry.

- **Operating voltage:** 24 VDC nominal.
- **Maximum available current:** 500 mA, appropriate for powering four-wire smoke detectors (*see Note 2 below*).

NONRESETTABLE POWER (TB1): Power-limited circuitry.

- **Operating voltage:** 24 VDC nominal.
- **Maximum available current:** 500 mA (*see Note 2 below*).

NOTES: 1) Refer to *NOTIFIER Device Compatibility Document*, no. 15378, for Listed compatible devices. **2)** Total current for resettable power and one NAC must not exceed 3.0 amps for the SFP-2402. Total current for nonresettable power, resettable power, and two NACs must not exceed 6.0 amps for the SFP-2404.

CABINET AND MOUNTING

CABINET PHYSICAL DIMENSIONS: Door: 15.342" (38.97 cm) high x 14.677" (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 mounts using two key slots at the top of the backbox and two additional 0.25" (6.35 mm) diameter holes at the bottom. The cabinet can be surface mounted. The door is removable during installation; open it and lift it off the hinges.

PRODUCT LINE INFORMATION

- SFP-2402** Two-zone conventional FACP.
- SFP-2404** Four-zone conventional FACP.
- CAC-4** Class A converter module (*SFP-2404 only*). Converts Style B (Class B) IDC to Style D (Class A), and Style Y (Class B) NAC to Style Z (Class A). The CAC-4 module connects to J1 on the circuit board.
- 4XTM** Transmitter module (*SFP-2404 only*).
- 4XLM** LED interface module (*SFP-2404 only*).
- 4XZM** Zone relay module (*SFP-2404 only*).
- RZA-4X** Remote annunciator (*SFP-2404 only*); mounts in a single-gang box.
- BB-17** Battery box. Required to house batteries greater than the two 7 AH installable in the FACP cabinet, 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.