SILENT KNIGHT

by Honeywell

SK-4 & SK-4E Fire Alarm Control Panel

4-zone fire protection at a price that won't burn your budget.

The SK-4 and SK-4E (SK-4/E) are four zone conventional fire alarm control panels (FACPs) that bring the latest in microprocessor technology to conventional fire controls. The SK-4 is a 120 VAC FACP and the SK-4E is a 240 VAC FACP. These FACPs provide reliable fire signaling protection for small- to medium-sized commercial, industrial, and institutional buildings.

For more information about the SK-4/E system, or to locate your nearest source, please call 1-800-328-0103.

Description

The four zone SK-4/E is a 24 VDC FACP that provides four Class B initiating device circuits and two Class B notification appliance circuit (NAC).

The SK-4/E NAC protocol includes the ability to silence audible devices while strobes continue to flash, using only a single pair of wires. The SK-4/E is 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.

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.

The SK-4/E is compatible with System Sensor® I[3] detectors providing advanced features such as drift compensation, maintenance alert, and freeze warning. Automatic synchronization of audio/visual devices is provided, using three selections for manufacturer protocol.

Features

- Four Style B (Class B) initiating device circuits (IDCs)
- Two Style Y (Class B) notification appliance circuit (NAC)
- Optional module converts all IDCs and NACs to Class A (PN SK-CAC4)
- Support for synchronization of standard ANSI audible signals and ADA compliant strobes per NFPA 72

- Selectable for System Sensor, Wheelock, and Gentex protocols
- Selective silence feature allows manual silence of horns while strobes continue to flash on the same NAC
- Program for combination tamper supervisory monitor and waterflow alarm on one zone
- Silent or audible walk test operation mode
- Alarm verification selectable per zone
- Program each zone for supervisory or fire with separate red and yellow LEDs
- Disable switches provided per zone
- Program NACS for
  – Silence inhibit
  – Auto silence
  – Strobe synchronization
  – Temporal or steady signal
  – Silenceable or nonsilenceable
  – Disable
- Form C alarm, trouble, and supervisory relays
- 3A total usable current
- 6A total usable current with optional second transformer (PN SK-TRM24 or SK-TRM24E)
- Optional dress panel (PN SK-DP2/4)

Electrical Specifications

SK-4 Primary AC: 120 VAC @ 50/60 Hz, 2.3A

SK-4E Primary AC: 240 VAC @ 50 Hz, 1.15A

Wiring: 14 AWG (2.0 mm^2) with 600 V insulation min

Initiating Device Circuits (IDCs)
Operating Voltage: 22 VDC nominal; power-limited
Standby Current: 4 mA
Alarm Current: 15 mA min
Short-circuit Current: 40 mA max
Loop Resistance: 100 max
EOL Resistor: 4.7K Ω, 1/2 watt

SK-4

NACs
Signaling Current: 2.5A @ 24 VDC with standard transformer or 5A total (2.5A per NAC) with additional optional transformer, power-limited
EOL Resistor: 4.7K , 1/2 watt

Form C Relays
Types: Trouble, alarm, and supervisory
Contact Ratings: 2A @ 30 VAC, resistive

Auxiliary Output
Resettable and non-resettable
Operating Voltage: 24 VDC nominal
Current: 500 mA max, power-limited; total current for nonresettable power, resettable power and two NACs must not exceed 6.0A (requires additional transformer)

SK-4 & SK-4E
Fire Control Panel

Engineering Specifications

The contractor shall provide a completely electrically supervised fire alarm control panel Silent Knight Model SK-4/E. The system shall contain a fire alarm control panel capable of operating and supervising smoke detection devices, alarm notification devices, and an on-board annunciator. It shall be compatible with a digital communicator accessory.

The fire alarm control panel shall have a power limited supply, four Class B initiation circuits which shall accommodate heat detectors, smoke detectors, and manual pull stations. Smoke detection shall be achieved with either 2- or 4-wire detectors that are compatible with the system. The initiation inputs shall be programmable as 1) verification zones in which detectors are automatically reset one time before signaling an alarm condition; or 2) combination waterflow supervisory zones that allows the FACP to distinguish between an alarm switch (waterflow device) and a supervisory switch (tamper) installed on the same circuit. The FACP shall have two 2.5 amp or 5 amp (with an additional optional standard transformer) programmable notification outputs. It shall have dedicated relays for alarm, trouble, and supervisory. It shall have two power outputs, one resettable and one non-resettable, each rated at 500 mA.

The FACP shall have an on-board annunciator to indicate alarm, supervisory, trouble, and maintenance conditions. The annunciator must include LEDs for AC, GENERAL TROUBLE, ALARM SILENCE, WALK TEST, EARTH FAULT, AND LOW BATTERY. The annunciator shall also contain LEDs to annunciate fire alarms, troubles, supervisory, and maintenance by zone. The FACP must be fully operational from the annunciator and include buttons for ACKNOWLEDGE, ALARM, SILENCE, RESET, and WALK TEST. The annunciator must also have separate DISABLE switches for each zone and notification circuit.

Electrical Specifications (cont)

Battery
Type: Sealed lead acid only
Charging Circuit: 27.6 VDC @ 0.8A max normal flat charge
Charging Capacity: 18 AH
Size: 7 AH max allowed in FACP. Larger batteries can housed in an RBB accessory cabinet

Compatible Initiating and NAC Devices
See SK document PN 52612.

Mechanical Specifications
Cabinet Backbox Dimensions:
14.5" W x 15" H x 3" D
(36.83 W x 38.10 H x 7.62 D cm)
Cabinet Door:
14.677" W x 15.342" H x 0.375" D
(37.28 W x 38.97 H x 0.95 D cm)
Cabinet Color: Red

Installation
The SK-4/E can be surface mounted using two key slots at the top of the backbox and two additional 0.25" diameter holes at the bottom, or semi-flush mounted using the optional Trim Ring P/N TR-1-R

Approvals
NFPA 72; UL Listed;
CSFM 7165-0559: 145;
MEA 297-01-E-3

Ordering Information

SK-4
120 VAC Four Zone Conventional FACP

SK-4E
240 VAC Four Zone Conventional FACP

Accessories

SK-DP2/4
Dress Panel. Allows access to the panel controls but restricts access to system wiring.

SK-CAC4
Class A Convertor. Converts Style B (Class B) IDCs to Style D (Class A) and Style B (Class B) NACs to Style Z (Class A)

SK-4XTM
Transmitter Module. Provides a supervised output for local energy municipal box transmitter and alarm and trouble reverse polarity.

SK-4XLM
LED Interface Module.

SK-XRM24
110 Volt Transformer 3–6A.

SK-XRM24E
220 Volt Transformer 3–6A.

SK-RZA4
Remote Annunciator.

SK-4XZM
Zone Relay Module.

RBB
Remote Battery Box Accessory Cabinet. Use if back up batteries are too large to fit into FACP cabinet. Dimensions: 16"W x 10"H x 6"D

Digital Communicator Accessories
5104B
Six-zone fire control communicator

5129
Four channel slave fire communicator

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MADE IN AMERICA

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