6820

Intelligent Fire Alarm Control Panel with Communicator

The 6820 features an expandable SLC circuit, six Flexput circuits, dual-line DACT, powerful software features, and connectivity for up to 17 panels.

The 6820 is the latest intelligent addressable FACP (Fire Alarm Control Panels) from Silent Knight and is a direct replacement for the 5820XL FACP. The FACP has one built-in SLC (signaling line circuit), which can support 159 System Sensor® SK detectors and 159 SK modules, or 127 Hochiki® SD protocol devices. Additional SLC loops can be added for a maximum of 1110 (SK) or 635 (SD) points per panel.

The built-in digital alarm communicator/transmitter (DACT) is dual technology, IP and POTS. The POTS transmits system status (alarms, troubles, AC loss, etc.) to a Central Station via the public switched telephone network. The IP communicator's internet monitoring capability sends alarm signals over the Internet saving the monthly cost of two dedicated business telephone lines. Although not required, the secondary telephone line may be retained providing backup communication over the public switched telephone line. Optional cellular reporting is available.

The 6820 has six onboard Flexput® circuits that can be configured as notification outputs or auxiliary power. The 6820 also has a form-C trouble relay, and two programmable form-C relays, along with powerful features such as drift compensation, pre-trouble maintenance alert, a built-in sensor test to comply with NFPA 72 calibration testing requirements, and a calibration trouble alert.

A common communications and annunciation link allows up to 17 panels to be connected via copper or fiber optic cable. A designated panel is configured as the communicator for all panels in the link for convenient single-point communications.

FEATURES AND BENEFITS

- Complies with UL 864 10th Edition and UL 2572 2nd Edition Standards
- Expandable SLC loops to 1110 (SK) or 635 (SD) point capacity
- Six Flexput circuits for NAC outputs or auxiliary power
- Selectable strobe synchronization for Amseco®, System Sensor, Wheelock®, and Gentex® devices
- Built-in DACT with IP and optional cellular reporting
- Built-in USB interface for quick and easy programming

- JumpStart® auto programming reduces installation time
- 999 software zones and 999 output groups for flexible design options
- 23 preset notification cadence patterns (including ANSI® 3.41)
- Allows up to 24 SBUS devices
- Four programmable function keys
- Two programmable relays and one fixed trouble relay
- Compatible with SWIFT® wireless devices
- Convenient field-upgradeable firmware
- Common Communications Link for up to 17 sites

- Network card allows copper network connection with a multi-mode or single-mode fiber connection
- Real-time clock/calendar with automatic daylight savings control
- History file with 1,000 event capacity
- Available in a red or black cabinet
- Surface mounting or flush mounting cabinet

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USER INTERFACE

LED INDICATORS

- General Alarm (Red)
- Supervisory (Yellow)
- System Trouble (Yellow)
- System Silenced (Yellow
- System Power (Green)

KEYPAD

- 12-key numeric pad
- Acknowledge
- Alarm Silence
- System Reset
- Drill
- F1-F4 Programmable Function Keys

PROGRAMMING

The 6820 system offers several options to simplify and expedite programming. JumpStart® auto programming minimizes programming required to start a new system. The built-in keypad, or the remote annunciators give on-site access to current system programming. System programming can also be accomplished using the Windows®-based Honeywell Fire Software Suite (HFSS).

ORDERING INFORMATION

6820: Addressable fire alarm control panel, red

COMPATIBLE SBUS DEVICES

6860: 4x40 LCD remote fire annunciator with four programmable buttons, red

5860: 4x20 LCD remote fire annunciator, gray

5860R: 4x20 LCD remote fire annunciator, red

6855: 4x20 LCD remote fire annunciator, red

5865-3: LED annunciators can display up to 30 LEDs (15 red and 15 yellow)

5865-4: LED annunciators can display up to 30 LEDs (15 red and 15 yellow). Key switches for silence and reset, and a system trouble LED

5880: LED I/O module with 40 programmable LED outputs and eight supervised dry contact inputs

5883: Relay interface. Provides 10 Form C relays

5824: Serial/Parallel printer interface module for printer connection

SK COMPATIBLE ADDRESSABLE DEVICES

Note: SKand SD devices cannot be mixed in the same fire alarm system.

SK-ACCLIMATE: Multi criteria photoelectric smoke detector with thermal 135°F fixed temperature

SK-BEAM: Reflected beam smoke detector without test feature

SK-BEAM-T: Reflected beam smoke detector with test feature

OSI-RI-SK: Reflected beam smoke detector, SK protocol

SK-CONTROL: Supervised control module

SK-CONTROL-6: Six circuit supervised control module

SK-DUCT: Photoelectric duct smoke detector with extended air speed range

SK-FIRE-CO: Four criteria fire and carbon monoxide detector

SK-FIRE-CO-W: Four criteria fire and carbon monoxide detector, white

SK-HEAT: Fixed thermal detector (135°F)

SK-HEAT-W: Fixed thermal detector (135°F), white

SK-HEAT-ROR: Fixed rate of rise detector

SK-HEAT-HT: Fixed high temperature thermal detector (190°F)

SK-HEAT-HT-W: Fixed high temperature thermal detector (190°F), white

SK-HEAT-ROR-W: Fixed rate of rise detector, white

SK-ISO: Fault isolator module

SK-MINIMON: Mini monitor module

SK-MONITOR: Monitor module

SK-MONITOR-2: Dual input monitor module

SK-MON-10: 10- input monitor module

SK-PHOTO: Photoelectric smoke detector

SK-PHOTO-W: Photoelectric smoke detector, white

SK-PHOTO-R: Photoelectric detector with remote test capability

SK-PHOTO-R-W: Photoelectric detector with remote test capability, white

SK-PHOTO-T: Photoelectric smoke detector with fixed thermal heat (135°F)

SK-PHOTO-T-W: Photoelectric smoke detector with fixed thermal heat (135°F), white

SK-PTIR-W: Multi criteria photoelectric smoke detector with thermal 135°F fixed temperature, white

SK-PULL-SA Addressable single action pull station

SK-PULL-DA: Addressable dual action pull station

SK-RELAY: Addressable relay module

SK-RELAY-6: Addressable Six relay control module

SK-RELAYMON-2: Addressable Dual relay/monitor module

SK-ZONE: Addressable zone interface module

SK-ZONE-6: Six zone interface module

SK BASES

B210LP: 6" mounting base

B501: 4" Flangeless mounting base

B200S: Intelligent sounder base

B200S-LF: Low-frequency intelligent sounder base

B224RB: Relay base

B224BI: Isolator base

SD COMPATIBLE ADDRESSABLE DEVICES

Note: SK and SD devices cannot be mixed in the same fire alarm system.

SD505-6AB: Addressable 6" base

SD505-6IB: Addressable 6" short circuit isolator base

SD505-6RB: Addressable 6" relay base

SD505-6SB: Addressable 6" sounder base

SD500-AIM: Addressable input module (switch input)

SD500-ANM: Addressable notification module

SD500-ARM: Addressable relay module

SD505-DTS-K: Remote test switch/LED indicator for the SD505-DUCTR

SD505-DUCT: Addressable Duct Smoke Detector

SD505-DUCTR: Addressable Duct Detector housing with relay base

SD505-HEAT: Absolute temperature heat detector. Trip point range from 135°F–150°F (0°C–37°C)

SD500-LIM: Addressable Line isolator module

SD500-MIM: Addressable Mini input monitor module (switch input)

SD505-PHOTO: Photoelectric smoke detector

SD500-PS/-PSDA: Addressable Single or dual action pull station

SD500-SDM: Addressable smoke detector module

SWIFT WIRELESS DEVICES

Note: SWIFT is only compatible with System Sensor (SK) devices. It is not compatible with Hochiki (SD) devices.

WSK-WGI: Wireless gateway

WSK-PHOTO: Wireless photoelectric smoke detector with B501W base

WSK-PHOTO-T: Wireless photoelectric smoke detector with fixed thermal detection (135°F) and B501W base

W-SYNC: Wireless sync module

WSK-HEAT: Wireless, fixed heat detector (135°F) with B501W base

WSK-HEAT-ROR: Wireless rate-of-rise heat detector and B501W base

WSK-MONITOR: Wireless monitor module

WSK-RELAY: Wireless relay module

WSK-PULL-DA: Wireless pull station

WAV-RL, WAV-WL, WAV-CRL, WAV-CWL: Wireless AV bases

W-USB: Wireless USB radio/antenna dongle that plugs into the USB port of a PC running SWIFT Tools

SWIFT Tools: Programming and diagnostic utility for the wireless gateway and devices. Available for download from www.silentknight.com

SYSTEM EXPANDERS

6815: SLC Expander for SK devices

5815XL: SLC expander for SD devices

5895XL: 6A power supply with six Flexput circuits and two Form C relays

5496: 6 amp NAC power expander with four power-limited output circuits

OPTIONAL COMMUNICATORS

CELL-CAB-SK: Cellular communicator, metal enclosure with lock and key

CELL-MOD: Cellular communicator, plastic enclosure

IPGSM-4G: Dual path fire alarm communicator, cellular and/or IP (primary or backup, selectable)

SK-IP -2: Remote reporting via the Internet. Requires a VisorALARM® receiver at the central station

MISCELLANEOUS ACCESSORIES

SK-NIC: Network Interface Card

SK-NIC-KIT: Installation Accessory Kit

SK-FML: Fiber-Optic Multi Mode transmitter and receiver

SK-FSL: Fiber-Optic Single Mode transmitter and receiver

RBB: Remote Battery Box accessory cabinet, holds batteries up to 35AH

SK-SCK: Seismic compliance kit used to fasten batteries to the fire panel

SOFTWARE SOLUTIONS

SKST: Silent Knight Selection Tool provides the installer or design architect with a Windows®-based software system configuration tool to create a detailed bill of material (BOM) and battery calculations

HFSS: Honeywell Fire Software Suite provides remote and local panel programming, detector status, event history and additional data. Databases can be uploaded/downloaded via the panel's USB port using a flash drive. Requires a PC running Microsoft® Windows®.

6820 TECHNICAL SPECIFICATIONS

SYSTEM CAPACITY

- **Intelligent Signaling Line Circuits:** 1 (expandable)
- **Addressable device capacity:** 1110 (SK) or 635 (SD)
- **Programmable software zones:** 999
- **Output groups:** 999
- **Output circuits:** 6 (expandable)
- **SBUS devices:** 24 (16 annunciators, 8 LED modules)

ELECTRICAL

- **AC Power:** 120VAC, 60Hz, 3.3A
- **Standby Current:** 190 mA
- **Alarm Current:** 250 mA
- **Flexput Circuits:** Terminal block provides connections for (six Class B or three Class A) NACs or auxiliary power. Power-limited, supervised circuitry. Maximum current per circuit: 3 A. Cannot exceed 6A total for all circuits. End-of-line resistor: 4.7k ohm, ½ watt for Class B NACs
- **Communication Loop:** Supervised and power-limited, Class A or Class B, 32VDC, 150mA
- **Two Programmable Relays and One Fixed Trouble Relay:** Contact rating: 2.5 A @ 27.4 VDC (resistive), Form C
- **Battery:** Cabinet holds maximum of two 18 AH batteries
- **Battery Charger Capacity:** 7-35 AH

PHYSICAL

Dimensions: 16.4" W x 26.4" H x 4.1" D (41.66cm W x 67.06cm H x 10.41cm D)

Weight :32 lbs. (14.5 kg.)

Color: Red

TEMPERATURE AND HUMIDITY RANGES

This system meets NFPA requirements for operation at 0 – 49°C (32– 120°F) and at a relative humidity 93% ± 2% RH (non-condensing) at 32°C ± 2°C (90°F ± 3°F). However, the useful life of the system's standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this system and its peripherals be installed in an environment with a normal room temperature of 15 – 27°C/60 – 80°F.

NFPA STANDARDS

The 6820 complies with the following standards and codes:

NFPA 72

NFPA 13

NFPA 15

NFPA 16

NFPA 70

UL 864 10th Edition

AGENCY LISTINGS AND APPROVALS

UL Listed: S2766

CSFM: 7165-0559:0500

FDNY COA# 6249

FM Approved

Seismic: (CA) VMA-45894-05C

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