



**SILENT  
KNIGHT**

by Honeywell

## **IntelliKnight® Model 5820XL Addressable Fire Alarm Control System**

**The IntelliKnight System is the easy way  
to make the most of fire alarm technology.**

IntelliKnight 5820XL is the first fire alarm system to provide you with revolutionary value and performance in addressable sensing technology. The 5820XL FACP offers exclusive, built-in digital communication, distributed intelligent power, a modular design and an expanded, easy to use interface. Powerful features such as drift compensation and maintenance alert are delivered in this powerful FACP from Silent Knight.

For more information about the 5820XL system, or to locate your nearest source, please call 800-328-0103.

### **Description**

5820XL is an intelligent addressable fire alarm control panel (FACP). The basic 5820XL system can be expanded by adding modules such as 5860 remote annunciator, 5815XL signalling line circuit expander, 5824 serial/parallel printer interface module (for printing system reports), and 5895XL intelligent power module. 5820XL supports Hochiki or SK devices. 5820XL also features a powerful built-in dual line fire communicator that allows for reporting of all system activity to a remote monitoring location.

### **Features**

- Built in support for 99 SK detectors and 99 SK modules, expandable to 396 SK detectors and 396 SK modules using System Sensor protocol
- Built in support for 127 Hochiki devices, expandable to 508 Hochiki devices using Hochiki protocol.
- Uses standard wire—no shielded or twisted pair required
- Built-in digital communicator
- Central station reporting by point or by zone
- Built-in synchronization for appliances from AMSECO®, Gentex®, Faraday, System Sensor, and Wheelock®
- Flexput™ I/O circuits
- Supports Class B (Style 4) and Class A (Style 6) configuration for SLC, SBUS, and Flexput circuits
- Distributed, intelligent power
- Drift compensation
- 13 pre-programmed output cadences (including ANSI-3.41) and 4 programmable outputs
- Built-in annunciator with 80-character LCD display
- RS-485 bus provides communication to system accessories
- Built-in RS-232 and USB interface for programming via PC
- Built-in Form C trouble relay rated at 2.5 amps at 27.4 VDC
- Improvements in SKSS software deliver five times faster uploads/downloads
- Two built-in Form C programmable relays rated at 2.5 amps at 27.4 VDC
- Supports sounder bases
- 6 amp power supply and maximum charging capacity of 35 amp hours (An additional cabinet enclosure is required for batteries in excess of 18 amp hours)
- Programmable date setting for Daylight Saving Time
- Plex-1 door option combines a dead front cabinet door with a clear window, limiting access to the panel while providing single button operation of the reset and silence functions



**Model 5820XL**

### **Installation**

The 5820XL can be surface or flush mounted

### **Compatibility**

The 5820XL SLC supports multiple device types of the *same* protocol:

- SK (System Sensor)
- Hochiki

You cannot mix Hochiki and SK devices on a FACP.

## IntelliKnight Model 5820XL Addressable Fire Alarm Control Panel

### Indicator Lights

General Alarm (Red): Flashes when in alarm; solid when alarm silenced

Supervisory (Yellow): Flashes when a supervisory condition exists; solid when supervisory silenced

System Troubles (Yellow): Flashes when a trouble condition exists; solid when trouble silenced

System Silenced (Yellow): On when an alarm, trouble or supervisory condition has been silenced but not yet cleared

System Power (Green): Flashes for AC failure; solid when power systems are normal

### System Application

5820XL has one built-in signalling line circuit (SLC) which supports multiple devices dependent on protocol being used. Three additional loops can be added using the 5815XL SLC expanders to increase overall capacity.

The 5820XL SLC loops support multiple device types, including:

- Addressable photoelectric smoke detector
- Addressable ionization smoke detector
- Addressable heat sensor
- Addressable duct smoke detector
- Contact module
- Relay output module
- Addressable notification module
- Addressable beam detector (SK protocol only)
- Addressable multi-criteria smoke detector (SK protocol only)
- Addressable multi modules (SK protocol only)

The following advanced sensor capabilities are available with 5820XL:

- Automatic drift compensation
- Maintenance alert
- Built-in sensor test to comply with NFPA 72 calibration testing requirements

5820XL features a 6 amp power supply and maximum battery charging capacity of 35 amp hours. An additional cabinet enclosure (PN RBB) is required for batteries in excess of 18 amp hours. Flexput circuits on 5820XL control can be individually programmed to function as notification circuits, auxiliary power outputs, or initiation circuits that support both 2- and 4-wire smoke detectors.

The 5820XL system operates on non-twisted, unshielded cable when wired in compliance with standard wiring practices as called out in the National Electric Code 760-51 specifications for power-limited fire protective signalling cables. No special wiring is required. 5820XL provides 13 preset notification cadence patterns (including ANSI 3.41) and four user programmable selections for fire alarm notification.

Two programmable general purpose Form C relay outputs are provided on 5820XL.

Additionally, the IntelliKnight system features a built-in walk test and auto-programming. Its innovative, dead-front cabinet design allows for flush or surface mounting. System maintenance is easy to perform.

### User Interface

The 5820XL built-in annunciator with 80 character LCD display and large easy-to-use tactile touchpad can be used for system operation, programming and maintenance. It has five LEDs for alarm, supervisory, system trouble, system silenced and system power. System operations include silencing alarms and troubles, resetting alarms and the display of alarm troubles and memory. The system's non-volatile event history buffer stores 1000 events for viewing from the built-in or remote annunciator. System operation can be initiated with a mechanical firefighter's key or a valid 4- to 7-digit operator's code.

### Programming

The IntelliKnight system offers several options to simplify and speed up programming. The JumpStart® feature minimizes programming

required to start a new system. The built-in keypad and 5860 remote annunciator give on-site access to all programming. You can also program remotely using the 5660 Silent Knight Software Suite, which is Windows®-based software.

### Built-In Digital Communicator

5820XL features a built-in UL listed digital communicator for remote reporting of system activity and system programming. The communicator has the ability to seize two telephone lines to report alarms and troubles to a monitoring facility. The communicator supervises two phone lines and will activate a trouble signal if a line failure is sustained for more than 45 seconds. Other communication features include: retry if communication fails, two phone number capability, download phone number capability and Touch-Tone or rotary dialing. The communicator is compatible with SIA and Ademco Contact ID. The format is selectable by account number.



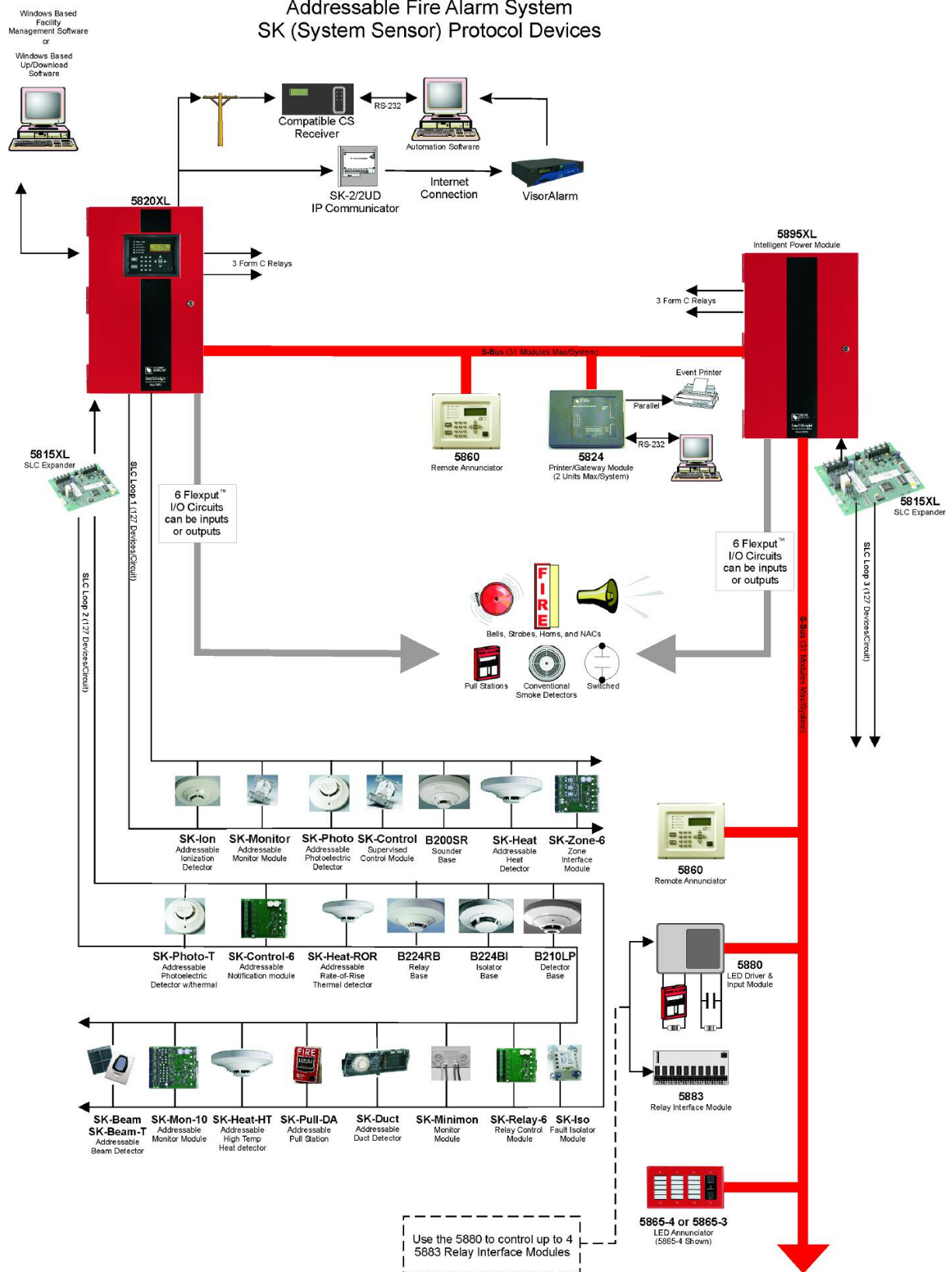
### Approvals

NFPA 13, NFPA 15, NFPA 16, NFPA 72: Central Station; Remote Signalling; Local Protective Signalling Systems; Auxiliary Protected Premises Unit; & Water Deluge Releasing Service. Suitable for automatic, manual, waterflow, sprinkler supervisory (DACT non-coded) signalling services.

Other Approvals: UL Listed; CSFM 7170-0559: 135; MEA 429-92-E Vol. VI; FM Approved

# IntelliKnight Model 5820XL Addressable Fire Alarm Control Panel

## IntelliKnight 5820XL Addressable Fire Alarm System SK (System Sensor) Protocol Devices



# IntelliKnight Model 5820XL

## Addressable Fire Alarm Control Panel

### Specifications

#### Electrical

Primary AC:

120 VRMS at 50/60 Hz, 2.5A or  
240 VRMS at 50/60 Hz, 1.4A

Total Accessory Load: 6A @ 27.4 VDC,  
power-limited

Standby Current: 215 mA

Alarm Current: 385 mA

Flexput Circuits:

Six programmable circuits which can be  
programmed individually as:

Notification circuits: 3A @ 27.4 VDC  
per circuit, power-limited

Auxiliary power circuits: 3A @ 27.4VDC  
per circuit, power-limited

Initiation Circuits: 100 mA @ 27.4VDC  
per circuit, power limited

#### Physical

Flush Mount Dimensions:

14.5"W x 24.75"H x 3.9"D  
(36.8 W x 62.9 H x 9.8 D cm )

Overall Dimensions:

16.2"W x 26.4"H x 4.2"D  
(40.6 W x 67 H x 11.8 D cm)

Weight: 28 lbs. (12.8 kg)

Color: Red

Battery Charging Capacity: 7.0-35 AH

Battery Size: 18 AH max allowed in  
control panel cabinet. Larger capacity  
batteries can be housed in RBB  
accessory cabinet.

Telephone Requirements:

FCC Part 15 and Part 68 approved  
Type of Jack: RJ31X (two required)

### S-BUS Accessories

#### 5860/R Remote Fire Annunciator

Features the same 80 character backlit  
LCD display keypad and firefighter's  
keyswitch as the 5820XL. 5860 is gray  
and 5860R is red.

#### 5815XL Signal Line Circuit Expander

The SLC expander is used to add more  
addressable devices to the IntelliKnight  
system. 5820XL supports three  
5815XL's. Each 5815XL can support  
127 devices.

#### 5895XL Intelligent Power Module

Adds 6 amps of power, 6 Flexput I/O  
circuits and 2 Form C relay circuits to a  
5820XL system.

#### 5496 Intelligent Power Module

A 6 amp notification power expander  
that provides four power-limited notifi-  
cation appliance circuit outputs.

#### 5880 LED/IO Module

Features 40 LED outputs, 8 normally  
open dry contact inputs, and one piezo  
output.

#### 5865-3 and 5865-4

##### Remote LED Annunciator

Features 30 programmable LED (15  
red and 15 yellow) outputs, and a piezo  
sounder. The 5865-4 adds a silence  
and reset switch to the package.

#### 5883 Relay Board

Features 10 general purpose Form C  
relays. Used with 5880 module.

#### 5824 Serial/Parallel Printer Interface Module

Provides one parallel and one RS-232  
serial port for connecting a printer to  
the 5820XL. Use to print a real-time log  
of system events, detector status  
reports, and event history. Interfaces  
with building control system.

### Miscellaneous Accessories

#### 5660 Silent Knight Software Suite (SKSS)

User-friendly Windows software for  
remote programming of 5820XLs using  
a PC. Upload and view panel account  
information, event history, and detector  
status.

#### 5670 Silent Knight Software Suite (SKSS)

Powerful end-user facility management  
software allows viewing of detector  
status and event history via modem or  
direct connection.

#### Plex-1

Dead front cabinet door with clear  
window to limit access to the FACP.

#### RBB

Remote battery box accessory cabinet.  
Use if backup batteries are too large to  
fit into FACP cabinet. Dimensions:  
16" W x 10" H x 6" D  
(406 mm W x 254 mm H x 152 mm D)

#### SD505-DTS-K

Remote test switch. Used with  
SD505-DUCTR. Provides remote key  
operated test function and annunciation  
of detector alarm.

#### Hochiki and SK Devices

See the specification sheets listed  
below for a complete listing of the  
Hochiki and SK devices.

53624 Hochiki Devices Data Sheet

53623 SK Device Protocol Devices  
Specification Sheet



**SILENT  
KNIGHT**

by Honeywell

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 Silent Knight 12 Clintonville Road, Northford, CT 06472 Phone: (203) 484-7161, Fax: (203) 484-7118. [www.silentknight.com](http://www.silentknight.com).

IntelliKnight & JumpStart are Registered Trademarks of Silent Knight  
Flexput is a Trademark of Silent Knight

**Made in America**

PN 350210 Rev G  
© 2010 Honeywell International Inc.