SILENT KNIGHT
by Honeywell

IntelliKnight® Mod
Addres
Alarm Contr

The IntelliKnight System is th
to make the most of fire alarm technology.

RESURGAM CITY OF PORTLAND, MAINE
Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 08/17/16

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 SD 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 SD devices, expandable to 508 SD devices using the SD 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
- 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
- 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

- 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

Installation

The 5820XL can be surface or flush mounted

Compatibility

The 5820XL signal line circuit (SLC) supports multiple device types of the *same* protocol:

- SK (System Sensor)
- SD

You cannot mix SD and SK SLC devices on a FACP.

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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

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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 99 SK detectors and 99 SK modules or 127 SD 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 notification 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

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.

SD and SK Devices

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

53624 SD Devices Data Sheet
53623 SK Devices Data 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.
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