

XLS3000

Intelligent Addressable Fire Alarm System

General

The Honeywell XLS3000 is an intelligent Fire Alarm Control Panel (FACP) designed for medium- to large-scale facilities. Fire emergency detection and evacuation are extremely critical to life safety, and the XLS3000 is ideally suited for these applications. The XLS3000 is part of the XLS Series of products from Honeywell. The XLS3000 is ideal for virtually any application because it features a modular design that is configured per project requirements. With one to ten Signaling Line Circuits (SLCs), the XLS3000 supports up to 3,180 intelligent addressable devices.

Information is critical to fire evacuation personnel, and the XLS3000's large 640-character Liquid Crystal Display (LCD) presents vital information to operators concerning a fire situation, fire progression, and evacuation details.

The Eclipse™ line of detectors and modules introduces a new concept in fire detection. Because the devices are all individually intelligent, they have the ability to communicate directly with one another. For years the fire alarm industry has demanded peer-to-peer communication between networked control panels. The XLS3000 is the first to offer peer-to-peer communication between the detection and notification devices. This new concept in detection technology offers unparalleled response time, distributed intelligence and outstanding reliability.

A host of other options are available, including single- or multi-channel voice; firefighter's telephone; LED, LCD, or PC-based graphic annunciators; networking; advanced detection products for challenging environments; wireless fire protection; and many additional options.

When combined with a Honeywell Enterprise Buildings Integrator (EBI), the XLS3000 becomes part of an owner-operated proprietary monitoring system, allowing the connection of standalone or networked panels.

Features

- Certified for seismic applications when used with the appropriate seismic mounting kit.
- Complies with UL 2572 Mass Notification Systems (XLS3000 version 20 or higher).
- One to ten isolated intelligent Signaling Line Circuits (SLC) Style 4, 6 or 7.
- Wireless fire protection using SWIFT Smart Wireless Integrated Fire Technology. See 74-5175.
- Up to 159 detectors and 159 modules per SLC; 318 devices per loop/3,180 per FACP or network node.
 - Detectors can be any mix of ion, photo, thermal, or multi-sensor; wireless detectors are available for use with the XLS-WSG.
 - Modules include addressable pull stations, normally open contact devices, two-wire smoke detectors, notification, or relay; wireless modules are available for use with the XLS-WSG.
- Large 16 line, 640 character LCD backlit display or use display-less as a network node.
- Network options:
 - High-speed network for up to 200 nodes (XLS3000, XLS140-2, XLS140, XLS120(C), XLS-NCA/-NCA2 Network Annunciator, or XLS-DVC-EM, and Honeywell Enterprise Buildings Integrator™ [EBI]).



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XLS3000s, XLS-DVC audio option at right

- Standard network or up to 103 nodes (XLS3000, XLS140-2, XLS140, XLS120(C), XLS-NCA/-NCA2 Network Annunciator, or XLS-DVC-EM, and Honeywell Enterprise Buildings Integrator™ [EBI]). Up to 54 nodes when XLS-DVC-EM is used in network paging.
- Built-in Alarm, Trouble, Security, and Supervisory relays.
- VeriFire® Tools online/offline program option.
- With built-in Degraded Mode operation, the system is capable of general alarm if a fire alarm condition is present even if the central processing unit (CPU) fails.
- 4,000 event history file in nonvolatile memory, plus a separate 1,000-event alarm-only file.
- Alarm Verification selection per point, with automatic counter.
- Autoprogramming, walk test, positive alarm sequence, and time scheduling.
- Support for Eclipse Detector Protocol.
- Backwards compatible with FlashScan and CLIP SLC devices.
- Multiple central station communication options:
 - Standard UDACT
 - Internet
 - Internet/GSM
- FM6320 approved Gas Detection System with TC809C1004 module and any FM listed gas detector.
- EIA-232 printer port; EIA-485 annunciator port.
- Honeywell SMART maintenance reporting.

Description

SIGNALING LINE CIRCUITS

The Honeywell XLS3000 Intelligent Addressable Fire Alarm System supports up to ten isolated intelligent signaling line circuits with Style 4, 5, or 7. Each of the 10 circuits can have up to 159 detectors (any mix of ion, photo, laser photo, thermal, or multi-sensor) and 159 modules (Addressable pull stations, normally open contact devices, two-wire smoke detectors, notification, or relay) with a total of 318 device per loop/3,180 per FACP or network node. Actual circuit loading depends on SLC communication protocol.

Weekly Occupancy Schedules allow changing sensor sensitivity by time of day, and day of week. An optional 2,040 point digital alarm communicator transmitter (DACT) is available for use with central monitoring stations. Annunciator support, including custom graphics, is provided via an EIA-485 annunciator port. An EIA-232 printer port is also provided. The history file has a 4,000 event capacity in nonvolatile memory, plus a separate 1,000 event alarm-only file. Advanced history filters allow sorting

by event, time, date, or address. Alarm verification selection can be done per point, with automatic counter. Autoprogramming and Walk test reports are provided. The panel includes positive alarm sequence (PAS) Presignal functionality. Timer options include Silence Inhibit and Auto Silence.

Field programmability, with check and compare, is provided on a PC with the VeriFire Tools program. Up to 1,000 powerful Boolean logic equations can be used. Non-alarm points are provided for lower priority functions. Remote ACK/Signal Silence/System reset/Drill can be done via monitor modules. The XLS3000 supports the SCS Series smoke control system in both HVAC and FSCS modes.

Figure 1 shows some of the sample system options.

DISPLAY

The XLS3000 display is a backlit LCD with 640-character display and a program keypad. The display allows up to nine users, each with a password and selectable access levels. The display has 11 LED indicators:

- Power
- Fire Alarm
- Pre-Alarm
- Security
- Supervisory
- System Trouble
- Other Event
- Signals Silenced
- Point Disabled
- CPU Failure
- Controls Active

There are also five membrane switch controls: Acknowledge, Signal Silence, Drill, System Reset, and Lamp Test.

TC840C1000 COPTIR

ADVANCED MULTI-CRITERIA DETECTOR

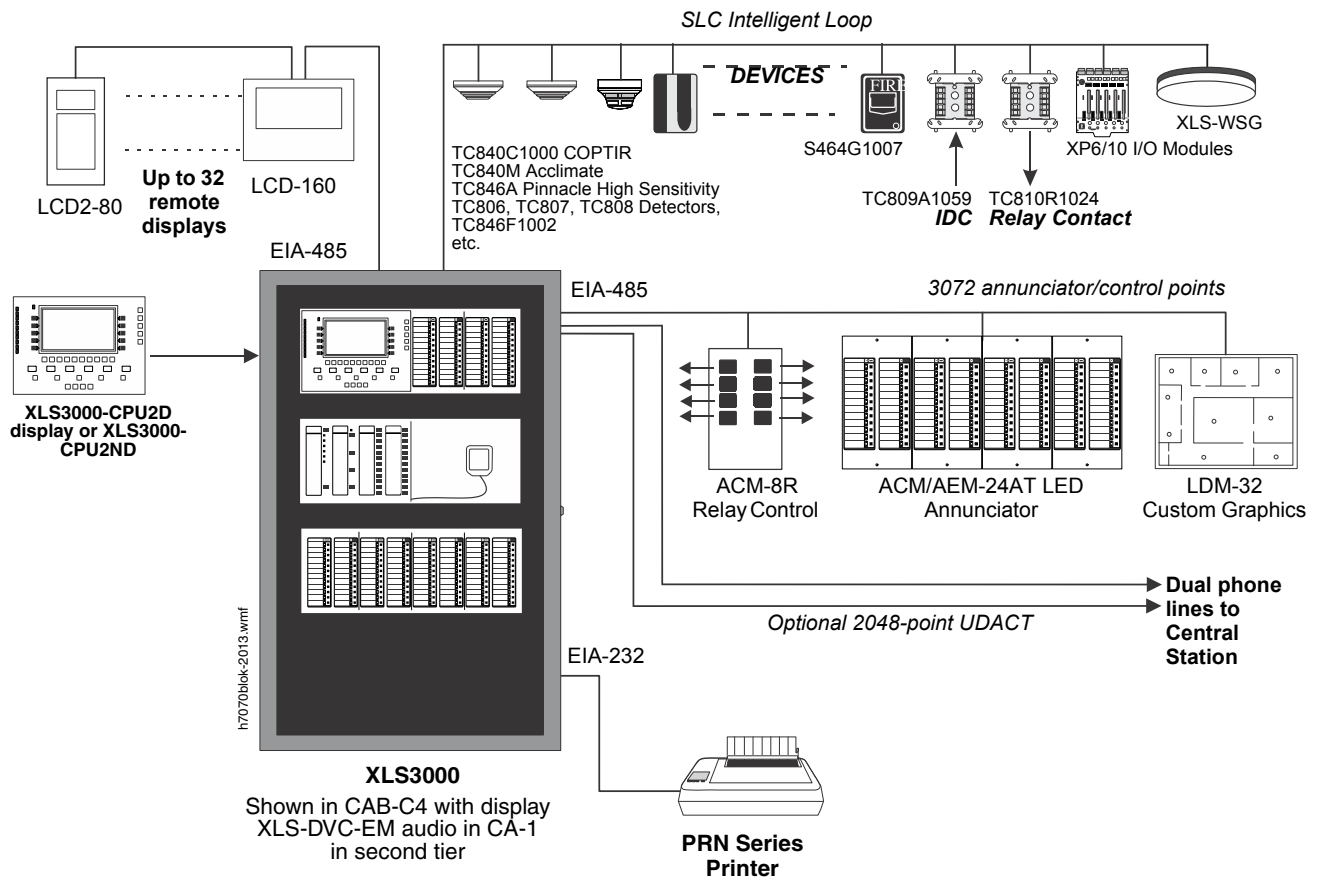
- Detects all four major elements of a fire (smoke, heat, CO, and flame).
- Automatic drift compensation of smoke sensor and CO cell.
- High nuisance-alarm immunity.

INTELLIGENT FAAST® DETECTORS TC846F5040, TC846F1002, AND TC846F4046

- Connects directly to the SLC loop of compatible XLS series panels.
- Provides five event thresholds that can be individually programmed with descriptive labels for control-by-event programming; uses five detector addresses.
- Uses patented particle separator and field-replaceable filter to remove contaminants.
- Advanced algorithms reject common nuisance conditions
- TC846F5040 covers 5,000 square feet through one pipe.
- TC846F1002 covers 8,000 square feet through one pipe.
- TC846F4046 covers 28,800 square feet through one to four pipes.

TC840C2010 ADVANCED MULTI-CRITERIA FIRE/CO DETECTOR

- Detects all four major elements of a fire.
- Separate signal for life-safety CO detection.



NOTE: XLS33000-CPU firmware version 14.0 (and higher) can support LCD-160 on the RDP port, or LCD2-80 in terminal mode, but not both at the same time.

Figure 1 XLS3000 Sample System Options

- Optional addressable sounder base for Temp-3 (fire) or Temp-4(CO) tone.
- Automatic drift compensation of smoke sensor and CO cell.
- High nuisance-alarm immunity.

TC809C1004 GAS DETECTION MODULE

- Interface to industry-standard linear scale 4-20 mA sensors.
- Five programmable thresholds.
- FM Approved, Class 6320 (Stationary Gas Sensors/ Detectors).

SWIFT WIRELESS

- Self-healing mesh wireless protocol.
- Each SWIFT Gateway supports up to 50 devices: 1 wireless gateway and up to 49 SWIFT devices.
- Up to 4 wireless gateways can be installed with overlapping network coverage.

FlashScan® Exclusive World-Leading Detector Protocol

FLASHSCAN®

At the heart of the XLS3000 is a set of detection devices and device protocol — FlashScan. FlashScan is an all-digital protocol that gives superior precision and high noise immunity.

As well as giving quick identification of an active input device, this protocol can also activate many output devices in a fraction of the time required by competitive protocols. This high speed also allows the XLS3000 to have the largest device per loop capacity in the industry — 318 points — yet every input and output device is sampled in less than two seconds. Up to 159 outputs can be activated in less than 5 seconds. The microprocessor-based FlashScan® detectors have bicolor LEDs that can be coded to provide diagnostic information, such as device address during Walk Test.

The multicolor LEDs blink the device address during a Walk Test. FlashScan operates with a fully digital, high-precision protocol. The multi-detector algorithm involves nearby detectors in the alarm decision, and the FlashScan device also uses drift compensation.

The FlashScan protocol incorporates nine levels of pre-alarm XLS intelligent sensing, each of which can be manually adjusted. Several programmable devices are available:

- Ion – 0.5 to 2.5%/foot obscuration.
- Photo – 0.5 to 2.35%/foot obscuration.
- Laser (Pinnacle™) – 0.02 to 2.0%/foot obscuration.
- Acclimate™ – 0.5 to 4.0%/foot obscuration.
- COPTIR – 1.0 to 4.0%/foot obscuration.

The FlashScan has a self-optimizing pre-alarm, automatic detector sensitivity testing, and two levels of maintenance alert. It also provides programmable activation of sounder/relay bases during alarm or pre-alarm. The Read Status displays the level of detector cleanliness.

Intelligent Sensing

Intelligent sensing is a set of software algorithms that provide the XLS3000 with industry-leading smoke detection capability. These complex algorithms require many calculations on each reading of each detector, and are made possible by the very high-speed microcomputer used by the XLS3000.

Drift Compensation and Smoothing. Drift compensation allows the detector to retain its original ability to detect actual smoke, and resist false alarms, even as dirt accumulates. It reduces maintenance requirements by allowing the system to automatically perform the periodic sensitivity measurements required by NFPA 72. Smoothing filters are also provided by

software to remove transient noise signals, usually caused by electrical interference.

Maintenance Warnings. When the drift compensation performed for a detector reaches a certain level, the performance of the detector may be compromised, and special warnings are given. There are three warning levels: (1) Low Chamber value; (2) Maintenance Alert, indicative of dust accumulation that is near but below the allowed limit; (3) Maintenance Urgent, indicative of dust accumulation above the allowed limit.

Sensitivity Adjust. Nine sensitivity levels are provided for alarm detection. These levels can be set manually, or can change automatically between day and night. Nine levels of pre-alarm sensitivity can also be selected, based on predetermined levels of alarm. Pre-alarm operation can be latching or self-restoring, and can be used to activate special control functions.

Self-Optimizing Pre-Alarm. Each detector may be set for “Self-Optimizing” pre-alarm. In this special mode, the detector “learns” its normal environment, measuring the peak analog readings over a long period of time, and setting the pre-alarm level just above these normal peaks.

Cooperating Multi-Detector Sensing. A patented feature of intelligent sensing is the ability of a smoke sensor to consider readings from nearby sensors in making alarm or pre-alarm decisions. Without statistical sacrifice in the ability to resist false alarms, it allows a sensor to increase its sensitivity to actual smoke by a factor of almost two to one.

ECLIPSE

In addition to supporting FlashScan protocol, the XLS3000 also supports the new Eclipse device series and communication protocol from System Sensor. This technological introduction brings an advancement to the Honeywell XLS3000 that is yet unmatched in the industry in distributed processing and system response time.

Response

Eclipse improves on the patented FlashScan protocol by further distributing the decision making process down to the device level. Eclipse sensors and alarm modules are able to broadcast their condition directly to the output devices on the same loop, eliminating the need for the control panel to process the alarm events and send individual output commands to the field devices. Output devices such as control modules are pre-programmed with response sequences stored directly in the field device. With this communication method, all output devices on a circuit can respond simultaneously to the alarm input within 250 ms of activation.

Device Technology

Eclipse devices (TC900 series) are available in the traditional line of detection and control products including: *TC906 Photoelectric; TC907 Ionization; TC908 Thermal; S464H manual pull stations; TC909 single and dual input modules; TC910N supervised and TC910R unsupervised control relay modules; and TC941A interface modules.*

Circuit Isolation

All Eclipse devices include built-in fault isolation modules to improve system survivability in the event of a field wiring short circuit which would normally disable the entire loop. This feature is normally made available only as an option in competing systems though the use of additional hardware. By incorporating this feature directly into the base product, installation labor and material cost are reduced.

Device Auto-Addressing and Location Identification

The fault isolators are also important to the Eclipse devices as they are used during system commissioning to locate the position of devices on the circuit relative to each other and the control panel. Using this information, the control panel can then automatically assign device addresses, eliminating a normally labor intensive portion of the start up process. Device locations

and addresses are then uploaded to the VeriFire Tools programming tool and displayed in a graphical format for use by the installer or service person.

Device Replacement

If an Eclipse field device needs to be replaced for service purposes, the control panel automatically locates the replacement device, determines its device type and then downloads the required programming information, including device address and operating parameters without operator intervention.

SMART

With the Honeywell System Maintenance and Reporting Tool (SMART), another first in the industry, the XLS3000 system is capable of reporting the maintenance history of each field device, thus simplifying the Testing and Inspection requirements mandated by NFPA. When a device exceeds the NFPA testing limits, the user is alerted by an indication on the control panel that service should be performed. This feature can be used by owners and building inspectors alike to insure that proper maintenance is being performed on the system.

Using VeriFire Tools, the owner or service company can run reports that list the devices in need of testing, as well as predictive reports to list devices that will be coming due in the next 30, 60 or 90 day interval, thus eliminating repeat service calls.

Field Programming Options

AUTOPROGRAM

Autoprogram is a timesaving feature. The XLS3000 "learns" what devices are physically connected and automatically load them in the program with default values for all parameters. Requiring less than one minute to run, this routine allows the

user to have almost immediate fire protection in a new installation, even if only a portion of the detectors are installed.

VERIFIRE® TOOLS

VeriFire® Tools is an offline programming and test utility that can greatly reduce installation programming time, and increase confidence in the site-specific software. It is Windows® based and provides technologically advanced capabilities to aid the installer. The installer may create the entire program for the XLS3000 in the comfort of the office, test it, store a backup file, then bring it to the site and download from a laptop into the panel.

RELEASING SERVICE

The system will release on any of ten independent hazards. There are three options of sophisticated cross-zone sensing. There is a delay timer and adjustable discharge timers, and there are four options for Abort.

EMERGENCY VOICE AND FIREFIGHTER'S TELEPHONE

The XLS3000 has digital message generation, hard-wired voice control options, and a Firefighter's telephone option. The voice message is powered by high-efficiency amplifiers (35, 50 and 75 watt DAA2/DAX Series, or 100 and 120 watt DS Series). There is an optional backup tone generator and amplifier available. For the Emergency Voice feature, the newly introduced Digital Voice Command provides eight channels of one-way alarm broadcast and five channels of two-way communications with remote fire telephones. See 74-4033.

XLS3000-CPU

The control panel XLS3000-CPU is contained on one printed circuit board the central processing unit. The XLS3000-CPU can be purchased with or without keypad and display; connections are identical on both versions.

Network Diagram

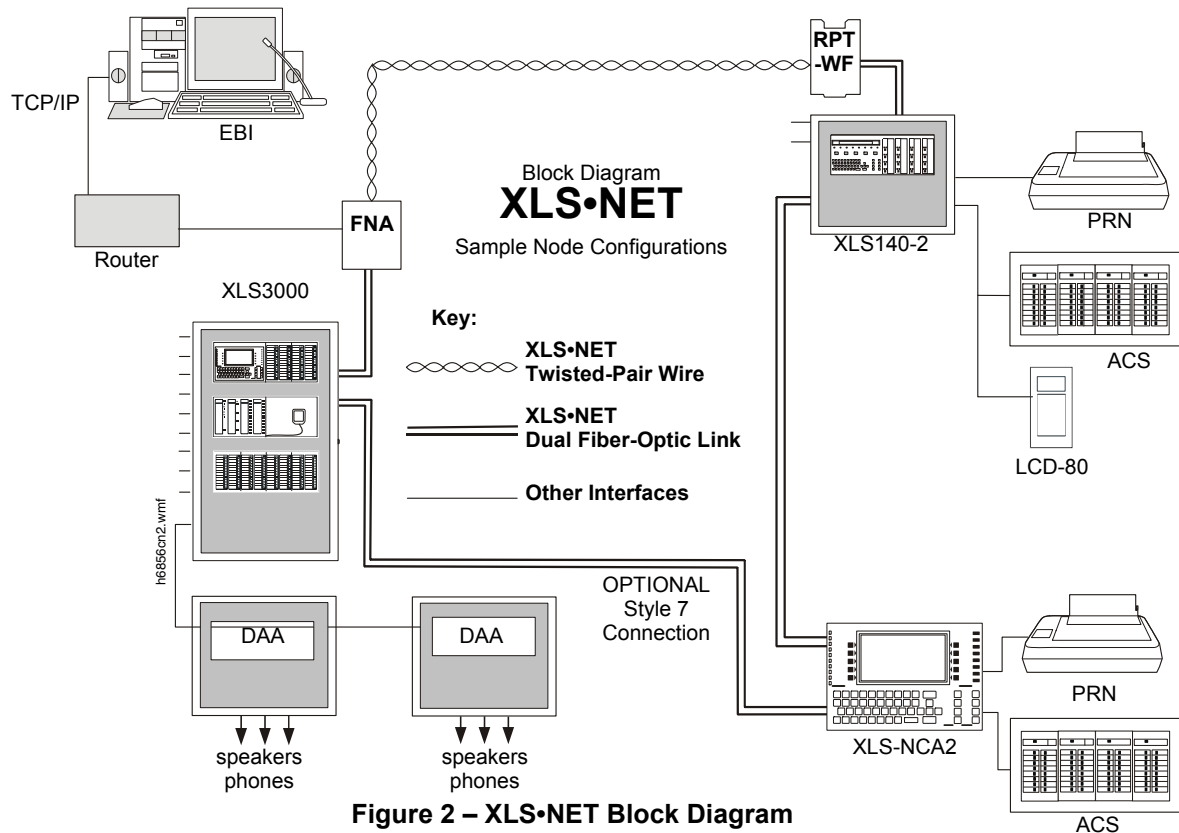


Figure 2 – XLS•NET Block Diagram

Product Line Information

CONFIGURATION GUIDELINES

Stand-alone and network systems require a main display. On single-FACP systems (one XLS3000), the display option is the XLS3000-CPUD. On network systems (two or more networked fire panel nodes), at least one XLS-NCA2 is required. Options listed as follows.

MAIN SYSTEM COMPONENTS

XLS3000-CPUD: XLS3000 with display. Includes CPU, 640 character display with keypad. Non-English versions are available: XLS3000-CPUD-FR (French), XLS3000-CPUD-PO (Portuguese), XLS3000-CPUD-RU (Russian), XLS3000-CPUD-SC (Standard Chinese), XLS3000-CPUD-SP (Spanish).

XLS3000-CPUND: XLS3000 without display. Includes CPU only.

AMPS-24: Main power supply and battery charger for the XLS3000. One required for each XLS3000 CPU used in 110/120 VAC applications. Charges 25 to 200 AH batteries. Primary input power: 110/120 VAC, 50/60 Hz, 4.5 A (maximum). Mounts in the bottom left hand section (battery row) of a XLS-CAB-4 enclosure. See 85-3057.

AMPS-24E: Main power supply and battery charger for the XLS3000. One required for each XLS3000 CPU used in 240 VAC applications. Charges 25 to 200 AH batteries. Primary input power: 240 VAC, 50/60 Hz, 2.25 A. Mounts in the bottom left hand section (battery row) of a XLS-CAB-4 enclosure. See 85-3057.

XLS-ELCM-320: Loop Control Module, Eclipse Protocol. Provides one Eclipse SLC. XLS3000 supports up to five XLS-ELCM-320 and five XLS-ELEM-320 expanders for a total of ten SLCs. See 85-3056.

XLS-ELEM-320: Loop Expander Module, Eclipse Protocol. Expands an XLS-ELCM-320. Cannot be used to expand an LCM-320. See 85-3056.

LCM-320: Loop Control Module, CLIP/FlashScan Protocol. Provides one CLIP/FlashScan SLC. XLS3000 supports up to five LCM-320s and five LEM-320 expanders for a total of ten SLCs. See 85-3056.

LEM-320: Loop Expander Module, CLIP/FlashScan Protocol. Expands an LCM-320. Cannot be used to expand an XLS-ELCM-320. See 85-3056.

NETWORKING OPTIONS

XLS-NCA2: Network Control Annunciator. One required per XLS-NET. Provides annunciation and control of all points on XLS-NET. Non-English versions are available: XLS-NCA-2-FR (French), XLS-NCA-2-PO (Portuguese), XLS-NCA-2-RU (Russian), XLS-NCA-2-SC (Standard Chinese), XLS-NCA-2-SP (Spanish). See 74-4045.

NCM-W, NCM-F: Network Communications Modules. Wire and multi-mode fiber versions available. One required for each network node (XLS3000, XLS140, XLS140-2, XLS-DVC-EM, BACNET GATEWAY, Q7055B1039) on XLS-NET. Mounts in a standard chassis position or on a BMP-1 plate. See 85-3007.

XLS-NCM-EBI-W: Network Communication Module, Wire. Used in applications where the Q7055B1039 (Fire Network adapter) is mounted remotely next to an EBI server. The XLS-NCM-EBI-W mounts inside the EBI server (in an PCI slot) and communicates with the Q7055B1039. See 85-3007.

XLS-NCM-EBI-F: Network Communication Module, Multi-Mode Fiber. Used in applications where the Q7055B1039 (Fire Network adapter) is mounted remotely next to an EBI server. The XLS-NCM-EBI-F mounts inside the EBI server (in an PCI slot) and communicates with the Q7055B1039. See 85-3007.

HS-NCM-W/MF/SF/WMF/WSF/MFSF: High-speed Network Communications Modules that can connect to two nodes. Wire,

single-mode fiber, multi-mode fiber, and media conversion models are available. See 74-4082.

RPT-W, RPT-F, RPT-WF: Repeater board with wire connection (RPT-W), multi-mode fiber connection (RPT-F), or allowing a change in media type between wire and fiber (RPT-WF). Not used with high-speed networks. See 85-3007.

Q7055B1039: Fire Network adapter. Used to connect XLS-NET or a standalone XLS3000 to Honeywell EBI. Requires one NCM-W/F or one XLS-NCM-EBI-W/F. See 74-4017.

BACNET-GW-3: BACnet interface for the XLS3000 or XLS-NET. Allows the XLS3000 to be connected to any BACnet capable application (subject to local AHJ approval). See 85-3067.

XLS-GW-EM-3: XLS•NET Gateway, embedded. See 74-5084.

HWS-3: Honeywell Web Server. See 74-5171.

XLS-LEDSIGN-GW: UL-listed sign gateway. Interfaces with classic and high-speed XLS-NET networks through the XLS•NET Gateway. See 74-5148.

OAX2-24V: UL-listed LED sign, used with XLS-LEDSIGN-GW. See 74-5148.

AUXILIARY POWER SUPPLIES AND BATTERIES

EOL-CR/CW: End of line relay plate. Required for certain Canadian Applications. See 85-3062.

APS2-6R: Auxiliary power supply. Provides two 24 VDC circuits, each rated for 3.0 A in alarm and 2.0 A continuous. Commonly used for the operation of peripheral audio/visual devices or any other application requiring 24VDC. See 85-3050.

ACPS-610: 6.0 A or 10.0 A addressable charging power supply. See 85-3109.

HPF24S6: 24 VDC NAC Remote Power Supply, 6A. Provides built-in NAC synchronization. 120 VAC only. UL LISTED.

HPF24S6C: Same as HPF24S6, but ULC LISTED.

HPF24S6E: Same as HPF24S6, but 240 VAC.

HPF24S8: 24 VDC NAC Remote Power Supply, 8A. Provides built-in NAC synchronization. 120 VAC only. UL LISTED.

HPF24S8C: Same as HPF24S8, but ULC LISTED.

HPR24S8E: Same as HPF24S8, but 240 VAC.

BAT Series: Batteries, 12V, Sealed Lead-Acid. AMPS-24 is compatible with 7 AH to 200 AH batteries. See 85-3072.

AUDIO OPTIONS

NOTE: See "Enclosures, Chassis, and Dress Plates" on page 7 for mounting hardware.

XLS-DVC-EM Digital Audio System: XLS-DVC Digital Voice System. Networkable or standalone with a XLS3000. See 74-4033.

DVC-RPU: Digital Voice Command Remote Paging Unit for use with DVC-EM. Includes the keypad/display. See 74-5170.

DS-DB: Digital Series Distribution Board, provides bulk amplification capabilities to the XLS-DVC-EM while retaining digital audio distribution capabilities. Can be configured with up to four DS-AMPs, supplying high-level risers spread throughout an installation. See 74-5139.

DS-AMP/E: 125W, 25 VRMS, or 100W, 70VRMS. 70VRMS requires DS-XF70V step-up transformer. Digital Series Amplifier, part of the DS-DB system. See 74-5141.

DS-RFM, DS-FM, DS-SFM: Fiber conversion modules for XLS-DVC-EM, DS-DB distribution board, and DAA2/DAX Series amplifiers. See 74-5078.

DAA2 Series, DAX Series: XLS-DVC Digital Audio Amplifiers. Used with the XLS-DVC-EM digital voice system, these amplifiers communicate via the digital audio look to provide 8 channels of audio messaging and 5 channels of firefighter's telephone communication over a single twisted pair of wire or fiber pair. See 74-5137, 74-5138, 74-4032 and 85-3121.

AA-30, AA-100, AA-120: Traditional Audio Amplifiers. Amplifies a low level audio signal to high level audio at 30, 100 or 120 Watts. Used with the XLS-DVC-EM when the DVC-AO Analog Audio Option is used. *See 85-3044.*

RM-1: Remote paging microphone series. *See 85-3053.*

AFAWS Series: Firefighter's remote telephone enclosure. *See 85-3052.*

ACT-2: Audio Coupling Transformer. *See 85-3065.*

DAA Series Digital Audio Amplifiers: Legacy DAA Series amplifiers are compatible with XLS-DVC systems running SR4.0. For specific information on DAA-50 series amplifiers, refer to 74-4032. For information on DAA-7525 Series, refer to 85-3121.

PRINTERS, ACS DEVICES AND PERIPHERALS

XLS-PRN-6: 80-column printer. *See 83-3073.*

PRN-7: 80-column printer. *See 74-5186.*

DPI-232: Direct Panel Interface. Specialized modem for extending EIA-232 serial data links to remotely located control panels and/or peripherals. Mounts in a standard chassis position. *See 85-3006.*

ACM-24AT: ACS annunciator – provides 24 LEDs with control buttons for annunciation and control of points. Can be expanded up to 96 points with AEM-24AT expanders. Active/Alarm LEDs can be programmed by point to be red, green or yellow; the Trouble LED is always yellow. Mounts on a DP-DISP or ADP-4B. *See 85-3004.*

AEM-24AT: Same LED and switch capabilities as ACM-24AT; expands the ACM-24AT to 48, 72, or 96 points (24 points per AEM-24AT). Mounts on a DP-DISP or ADP-4B. *See 85-3004.*

ACM-48A: ACS annunciator – provides 48 programmable LEDs for annunciation of points. Can be expanded up to 96 points with an AEM-48A expander. Active/Alarm LEDs can be programmed by point to be red, green or yellow; the Trouble LED is always yellow. Mounts on a DP-DISP or ADP-4B. *See 85-3004.*

AEM-48A: Same LED capabilities as ACM-48A; expands the ACM-48A to 96 points. Mounts on a DP-DISP or ADP-4B. *See 85-3004.*

ACM-8R: ACS Relay Module. Used to provide up to 8 remote form C contacts. Can be located up to 6,000 ft (1828.8 m) from the panel. *See 85-3046.*

LCD-160: . Remote Annunciator. Mimics the XLS3000 Display. Mounts in an XLS-ABS-2D(R), XLS-ABS-4D(R), XLS-ABF-2B, XLS-ABF-4B enclosure, or a DP-DISP, or ADP-4B dress plate. *See 85-3058.*

LCD2-80: Terminal and ACS mode. 80-character, backlit LCD display. Mounts up to 6,000 ft. (1828.8 m) from panel. Up to 32 per FACP. *See LCD2-80 (74-5091).*

SCS Series: Smoke control station. Used for UL listed smoke control applications. *See 85-3048.*

UZC-256: Universal Zone Coder provides non-interfering successive zone coding. Field programmable via laptop software. Mounts on a CHS-4 series chassis within XLS3000.

LDM-32: Lamp Driver module. Used to drive custom graphic annunciators. Mounts in a standard chassis position or inside a graphic annunciator. *See 85-3042.*

COMMUNICATORS (DACTS) AND TRANSMITTERS

UDACT-2: Universal Digital Alarm Communicator Transmitter, 636 channel. *See 74-5143.*

411 Series: 411 Series Slave Digital Alarm Communicator Transmitters. *See 85-3063.*

411 UDAC: 411UDAC Standalone Digital Alarm Communicator/Transmitter. Features remote upload and download capabilities. *See 85-3064.*

TM-4 Transmitter: Transmitter Module used for municipal box trip. Includes three reverse-polarity circuits and one municipal box circuit. Mounts in a standard chassis position. *See 85-3005.*

COMPATIBLE INTELLIGENT DEVICES

XLS-WSG Wireless SWIFT Gateway: Addressable gateway supports wireless SLC devices. Not appropriate for ULC applications. *See 74-5175.*

TC846F5040: Intelligent FFAST® XS Fire Alarm Aspiration Sensing Technology. Intelligent aspirating smoke detector for applications up to 5,000 sq.ft. For Canadian applications, order TC846F5040CDN.

TC846F1002: Intelligent FFAST® XM Fire Alarm Aspiration Sensing Technology. Intelligent aspirating smoke detector for applications up to 8,000 sq.ft. For Canadian applications, order TC846F1002CDN. *See 74-5174.*

TC846F4046: Intelligent FFAST® XT Fire Alarm Aspiration Sensing Technology. Intelligent aspirating smoke detector for applications up to 28,800 sq.ft. For Canadian applications, order TC846F4046CDN. *See 74-5180.*

TC847A1004: Intelligent beam smoke detector with integral sensitivity test. *See 74-3940.*

TC840C1000: FlashScan COPTIR Advanced Multi-Criteria Detector. *See 74-5070.*

TC840C2010: FlashScan Advanced Multi-Criteria Fire/CO Detector. *See 74-5146.*

TC807B1059: Low-profile FlashScan ionization detector. *See 85-3089.*

TC806B1076: Low-profile FlashScan photoelectric detector. *See 74-1941.*

TC806DNR: Low-profile intelligent photoelectric sensor, remote test capable. For use with DNR(W). *See 74-1941.*

TC806B1084: Low-profile FlashScan photoelectric detector with 135°F (57°C) thermal. *See 74-1941.*

TC808B1041: FlashScan thermal detector 135°F (57°C). *See 74-3354.*

TC808B1058: FlashScan thermal detector 135°F (57°C) with rate-of-rise. *See 74-3354.*

TC808B1066: FlashScan 190°F (88°C) high-temperature thermal detector. *See 74-3354.*

TC840M1021: FlashScan Acclimate low-profile multi-sensor detector. *See 74-3387.*

TC846A1013: FlashScan Pinnacle laser photo detector. *See 74-3373.*

DNR: InnovairFlex low-flow non-relay duct-detector housing (order TC806DNR separately). Replaces TC806D1049/TC806D1056. *See 74-4076.*

DNRW: Same as above with NEMA-4 rating, watertight. *See 74-4076.*

B224RB, 14507371-003: Low-profile relay base. *See 85-3043.*

B224BI, 14507371-005: Isolator base for low-profile detectors. *See 85-3043.*

B210LP: Low-profile base. Standard U.S. style. Replaces 14507371-001. *See 85-3043.*

B501: European-style, 4" (10.16 cm) base. *See 85-3043.*

B200S: Intelligent programmable sounder base, capable of producing a variety of tone patterns including ANSI Temporal 3. Compatible with synchronization protocol. *See 85-3043.*

B200S-LF: Low-frequency version of B200S. *See 85-3043.*

B200SCOA: Based on B200SA, with added CO detector markings in English/French. For Canadian applications only.

B200SR: Sounder base, Temporal 3 or Continuous tone. *See 85-3043.*

B200SR-LF: Low-frequency version of B200SR. *See 85-3043.*

TC809A1059: FlashScan monitor module. *See 74-3993.*

TC809D1004: FlashScan dual monitor module. *See 74-3993.*

TC841A1000: FlashScan two-wire detector monitor module. *See 74-3993.*

TC809B1008: FlashScan miniature monitor module. *See 74-3993.*

TC809C1004: FlashScan 4-20 mA protocol monitor module.

TC810N1013: FlashScan control module. *See 74-3995.*

TC810S1000: FlashScan releasing control module. *See 74-5068.*

TC810T1000: Firephone Telephone Module connects a remote firefighter telephone to a centralized telephone console. Reports status to panel. Wiring to jacks and handsets is supervised. *See 74-4077.*

TC810R1024: FlashScan relay module. *See 74-3995.*

TC822A1010: FlashScan dual monitor/dual relay module. *See 74-5104.*

TC906A, TC907A, TC908A: Eclipse series intelligent low-profile plug-in detectors. *See 74-3986.*

TC909A/B, TC910N/R, TC941A: Eclipse intelligent monitor, control, relay, and interface modules. *See 74-3987.*

S464G1007: Manual pull station, addressable (CLIP/FlashScan). *See 74-3365.*

S464H1006: Manual pull station, addressable (Eclipse). *See 74-4014.*

XLS-MPS series: Manual pull stations, addressable and conventional. For use in Canada only.

TC811A1006: Isolator module. *See 77-4555.*

ISO-6: Six Fault isolator module. For Canadian applications order ISO-6A. *See 74-5181.*

XP6-C: FlashScan six-circuit supervised control module. *See 85-3069.*

XP6-MA: FlashScan six-zone interface module; connects intelligent alarm system to two-wire conventional detection zone. *See 85-3070.*

XP6-R: FlashScan six-relay (Form-C) control module. *See 85-3071.*

XP10-M: FlashScan ten-input monitor module. *See 85-3068.*

ENCLOSURES, CHASSIS, AND DRESS PLATES

XLS-CAB-4 Series Enclosure: XLS3000 mounts in a standard CAB-4 Series enclosure. Backbox and door ordered separately; requires BP2-4 battery plate. A trim ring option is available for semi-flush mounting. *See 85-3002.*

EQ Series Cabinets: EQ series cabinets will house amplifiers, power supplies, battery chargers and control modules. EQ cabinets are available in three sizes, "B" through "D". *See 85-3110.*

CHS-M3: Chassis for XLS3000 FACP control panel for all applications unless the XLS-DVC-EM is used with firefighter's telephones. Mounts in the top row of a XLS-CAB-4 series enclosure.

CA-2: Chassis for XLS3000 FACP control panel when XLS-DVC-EM is used with firefighter's telephone. Mounts in the top two rows of a XLS-CAB-4 series enclosure. *See 74-4033.*

DP-DISP: Display dress plate. Used whenever a CHS-M3 is used. Covers the top row of a XLS-CAB-4 series enclosure.

ADP-4B: Annunciator dress plate. Mounts in rows 2, 3 or 4 of a XLS-CAB-4 series enclosure. Used with ACS series annunciators.

BMP-1: Cover Plate. Used with the DP-DISP or ADP-4B whenever an annunciator position is unused and needs to be covered.

DP-1B: Solid Blank plate. Used to cover rows 2, 3 or 4. Used when the installed equipment does not require user interaction (such as audio amplifiers).

BP2-4: Battery Plate. Covers the battery row. One required for each XLS3000 system.(Existing XLS-BP2-4 may be used in retrofits.)

CHS-4L: Standard Chassis, Low Profile. Used in rows 1 through 4. Commonly used for AA series amplifiers.

CHS-4N: Standard Chassis, High Profile. Used in rows 1 through 4. Commonly used for APS-6R power supplies and other peripherals such as NCMs, LCMs, etc.

CHS-6: Chassis used with the XP6 and XP10 Multi-Modules. Mounts up to six modules in any XLS-CAB-4 series row.

BB-100: Battery Enclosure. Holds up to two 100 AH batteries.

BB-200: Battery Enclosure. Stores up to 200 AH batteries.

XLS-LBB: Battery Enclosure, Black. Holds two 60 AH batteries or one 100 AH battery.

XLS-LBBR: Battery Enclosure, Red. Holds two 60 AH batteries or one 100 AH battery.

XLS-LSP, XLS-LSPA, XLS-SSP: FS90 retrofit kit components. *See 74-5145.*

SEISKIT-CAB: Seismic mounting kit. Required for seismic-certified applications with XLS3000 and other equipment mounted in XLS-CAB-4 Series Enclosures. Includes battery bracket for two 26 AH batteries.

SEISKIT-LBB: Seismic kit for the XLS-LBB. Includes battery bracket for two 55 AH batteries.

AUDIO VISUAL DEVICES (RECOMMENDED)

P2 and P4 Series: SpectrAlert Advance Wall Horn/Strobes. *See 85-0304 or 85C-0304 (Canada).*

CH Series: SpectrAlert Advance Wall Chimes. *See 85-0306 or 85C-0306 (Canada).*

SP2 Series: SpectrAlert Wall Speaker/Strobes, Wall Mount. *See 85-0302.*

SP2C Series: SpectrAlert Ceiling Speaker/Strobes, Ceiling Mount. *See 85-3101.*

SP200 Series: SpectrAlert Speakers. *See 85-0301.*

PA400 Series: SpectrAlert PA400 Series Mini Sounders. *See 85-3083.*

PF24V Series: Exit Point Directional Sounder. Used to mark perimeter exits. *See 85-3059.*

SSM Series: Standard Fire Alarm Bells. *See 85-3107.*

MISCELLANEOUS

R-10, R-20, EOLR Series: Multi-Voltage conventional relays, UL Fire rated. Used for a variety of fire applications. *See 85-3111.*

FM Series: FM Series Magnetic Door Holders. *See 85-3095.*

IPDACT-2/2UD Internet Monitoring Module: Connects to primary and secondary DACT telephone output ports for internet communications over customer-provided Ethernet connection. Requires compatible Teldat VisorALARM Central Station Receiver. Can use DHCP or static IP. *See 74-5097.*

IPCHSKIT: IP Communicator Chassis Mounting Kit. For mounting an IPDACT-2 onto the panel chassis or CHS-4 series chassis. Use IPENC for external mounting applications.

IPSPLT: Y-adapter option allow connection of both panel dialer outputs to one IPDACT-2 cable input.

IPENC: External enclosure for IPDACT, includes IPBRKT mounting bracket; Red; for black, order IPENC-B.

IPGSM-4G: Internet and Digital Cellular Fire Alarm Communicator. Provides selectable configurable paths: cellular only, IP only, or IP primary with cellular backup. Connects to the primary and

secondary ports of a DACT. For Canadian applications order IPGSM-4GC. See DH-60769.

NOTE: For other options including compatibility with retrofit equipment, refer to the panel's installation manual, the SLC manual, and the Device Compatibility Document.

System Specifications

SYSTEM CAPACITY

- Intelligent Signaling Line Circuits..... 1 expandable to 10
 - Intelligent detectors 159 per loop
 - Addressable monitor/control modules 159 per loop
 - Programmable software zones over 2000
 - ACS annunciators per XLS3000-CPU..... 32 address x 64 or 96 points
- NOTE:** The XLS3000-CPU can support up to 96 annunciator address points per ACM-24AT/-48A.

SPECIFICATIONS

Model: XLS3000 Intelligent Addressable Fire Alarm System

Primary Input Power:

- AMPS-24: 110-120 VAC, 50/60 Hz, 4.5 A maximum.
- AMPS-24E: 240 VAC, 50/60 Hz, 2.25 A maximum.

DC Output:

- 24 VDC: Up to 4.5 A
- 5 VDC: Up to 1.0 A.

Current draw (Standby/Alarm):

- XLS3000-CPUD board: 0.340 A.
 - XLS3000-CPUND board: 0.120 A.
 - LCM-320: 0.130 A.
 - LEM-320: 0.100 A.
 - AMPS-24(E)*: 0.13 A.
- (Draws power from secondary power source only.)

NOTE: See AMPS-24(E) Manual 51907 for a complete current draw calculation sheet and details of input and output values.

Total Output Power: 24V, 4.5 A in alarm.

Temperature Ratings: Ambient: 32°F to 120°F (0° to 49°C).

Humidity Ratings: 10 to 93% RH, non-condensing.

System Capacity:

- *Intelligent Signaling Line Circuits:* 1, expandable to 10.
- *Intelligent Detectors:* 159 per loop.
- *Addressable Monitor/Control Modules:* 159 per loop.
- *Programmable Software Zones:* over 2,000.

- *ACS Annunciators per XLS3000-CPU:* 32 address x 64 or 96* points.

NOTE: The XLS3000-CPU can support up to 96 annunciator address points per ACM-24AT/-48A.

Standards and Codes: The XLS3000 Intelligent Addressable Fire Alarm is designed to comply with the following standards:

- NFPA 72 Local, Auxiliary, Remote Station, Proprietary, and Emergency Voice/Alarm Fire System Requirements.
- Underwriters Laboratories Standard UL 864 (Fire), 9th Edition.
- Underwriters Laboratories Standard UL 1076 (Burglary).
- Underwriters Laboratories Standard UL 2572 (Mass Notification Systems). (XLS3000 version 20 or higher)
- International Building Code IBC 2013, IBC 2009, IBC 2006, IBC 2003, IBC 2000 (Seismic).
- California Building Code CBC 2007 (Seismic)

SHIPPING WEIGHT

- XLS3000-CPUD: 5.95 lb (2.70 kg).
- XLS3000-CPUND: 2.90 lb (1.32 kg).

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.

AGENCY LISTINGS AND APPROVALS

These listings and approvals apply to the modules specified in this document. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL Listed:** S470.
- **ULC Listed:** S470.
- **MEA:** 232-06-E Vol 2.
- **Fire Dept. of New York:** COA#6100, #6126.
- **CSFM:** 7165-1130:0256 (Commercial).
- **FM Approved.**
- **FM6320 Approved.** Class 6320 for Gas Detection.
- **City of Chicago.**
- **City of Denver.**
- **Singapore Productivity and Standards Board (PSB).**
- **CCCF listed.**

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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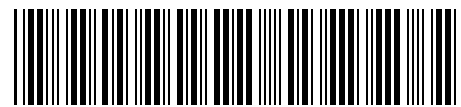
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