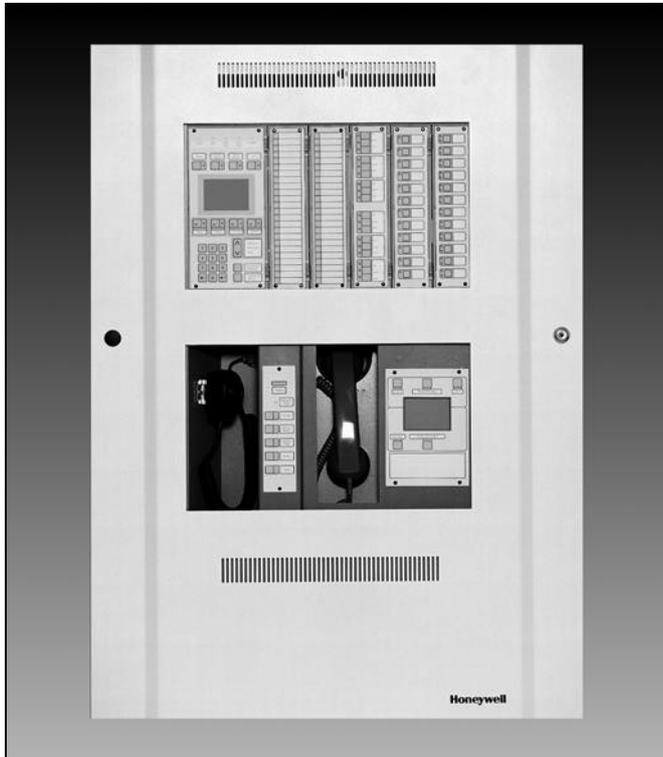


XLS 1000 Life Safety System

SPECIFICATION DATA



FEATURES

- Flexible system architecture
- Powerful networking capability. Up to 64 Nodes on a network handling up to 80,000 points
- Distributed intelligence
- Integrated digital audio evacuation capability, broadcasting on up to 8 channels
- Integrated Firefighter's Telephone System
- Designed for medium sized buildings and large complexes
- 250 intelligent or 198 analog addressable devices per loop , 1250 (990) devices per panel
- Easy to understand operator interface, 8 lines by 21 character backlit LCD
- Simple installation, programming, and commissioning
- Microsoft® Windows™ based on-site programming tool
- Automatic electronic device mapping

GENERAL

The XLS1000 is a microprocessor-based life safety system featuring intelligent alarm detection, a powerful networking capability, and reliable peer-to-peer communication. The XLS1000, expandable to 80,000 points, also incorporates an audio evacuation system that positions this system to meet the life safety requirements of large buildings such as hospitals, office towers, and hotels as well as multi-building complexes including colleges, universities, military bases, and manufacturing complexes.

The XLS1000 offers modularity and flexibility that allows the system to grow from a single stand-alone panel handling up to 1250 detection devices (with or without audio evacuation) to an expansive network linking 64 panels using a multi-priority token-ring protocol. The system's distributed database and sophisticated broadcast techniques ensure outstanding response time.

The XLS1000 System supports Honeywell's current range of TC800 Series analog addressable devices as well as the Signature Series detection devices, each of which incorporates it's own microprocessor. The detectors are addressable analog sensors which feature both single-element sensing (photo, ion, thermal) and various multiple sense combinations in a single unit which provide an optimum level of protection while virtually eliminating unwanted and/or false alarms.

The Liquid Crystal Display (LCD) operator interface provides a display area with eight lines of 21 characters (168 characters total) to annunciate emergency information in a useful text format. The display shows date, time, and number of alarms on the first line. Additionally, the LCD displays both the first highest priority event and the most recent highest priority event simultaneously. This allows the operator to respond to the highest priority event and be totally aware of new alarms being activated on the system.

The System Definition Utility (SDU) software is a Microsoft® Windows™ based program that allows the programmer to quickly create project-specific system software at the job site. The SDU defines the system components, characterises all input/output relationships including time-event sequences, and establishes system responses that are mandated by local code.

The XLS1000 may incorporate emergency audio evacuation signalling. Audio evacuation systems facilitate the orderly evacuation of building occupants during a fire emergency condition as well as providing for other emergency signalling needs. The XLS1000 audio evacuation system generates eight channels of digitised audio messages simultaneously over a single pair of wires including live broadcast by microphone.

DESCRIPTION

The XLS1000 Life Safety System incorporates a modular design and software-controlled system operation. This design technique facilitates easy customisation of the system to fit the requirements of a single-node, stand-alone application for a large building and to just as easily expand the system to a multi-node network that meets the needs of a complex of buildings. System layout is simplified because the XLS1000 integrates audio functions using the same fundamental components used for the fire alarm functions. The LCD operator interface provides a display area with eight lines of 21 characters (168 characters total) to annunciate system activity in a useful text format.

Two cabinet styles are available, suitable for lobby mounting and for remote locations. The standard configuration supports signature devices, whilst optional modules are available to provide support for conventional hard-wired zones, notification appliance circuits and city tie connections.

A unique feature of the XLS1000 is the modular design using Local Rails to provide the interface between field devices, operator interfaces, the panel communication bus and the CPU.

The modules themselves plug onto the panel rails and are secured by snap-fit mechanisms requiring no tools. Removable field wiring terminal strips make the XLS1000 easy to service, while the use of surface mount technology reduces both space and power supply demands. Power is provided through the local rails.

System Components

The XLS1000 is housed in a backbox that may contain a variety of system components, typically arranged as shown in the following diagram (Fig.1).

The backbox is suitable for semi-flush, or surface wall mounting. The Chassis and Local Rails provide the mounting base for the Central Processing Unit (CPU), a Liquid Crystal Display (LCD) operator interface, one to five Signature Data Loop Controller Modules with intelligent loop boards, and a selection of generic modules that customise the system to a specific application.

See the Ordering section in this sheet for a selection of the primary and booster power supplies as well as the audio and telephone modules used to integrate audio evacuation functionality into the system.

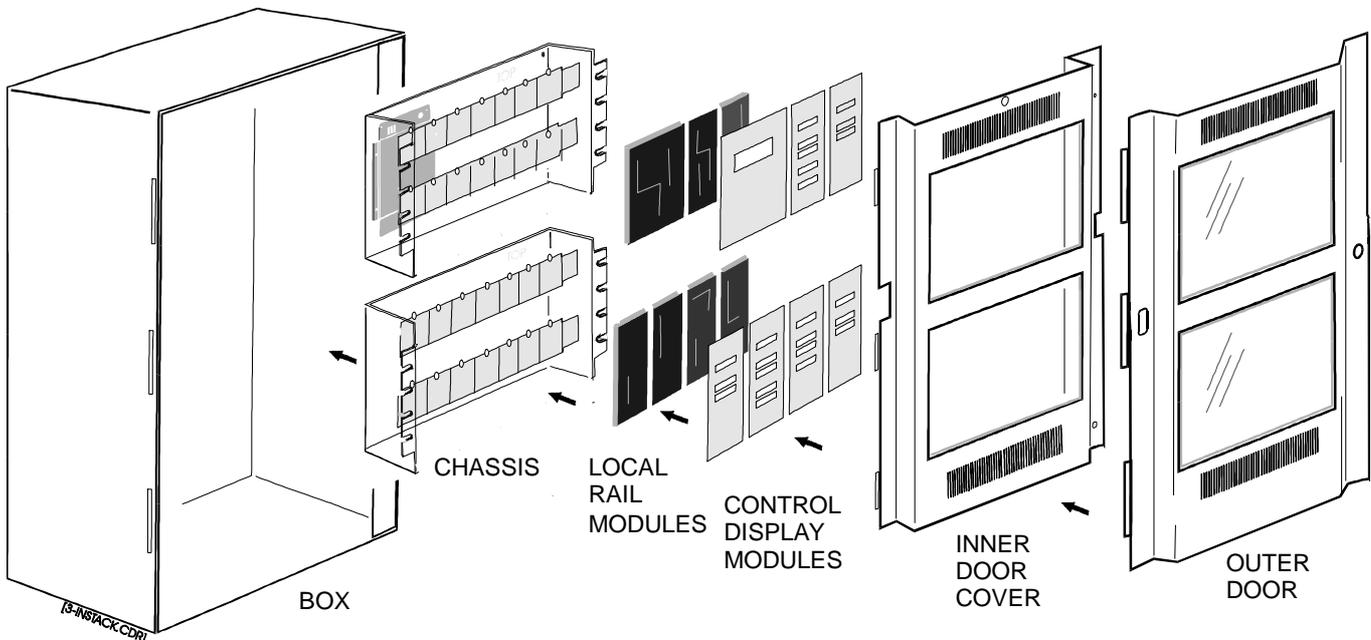


Fig.1: XLS1000 system components

LCD Operator Interface

The XLS1000 includes an LCD Operator Interface that provides Fire Alarm Common Controls, special function keys and a numeric keypad. The LCD Operator Interface provides simple-to-understand lights (LEDs) and switches to help the operators execute system commands with confidence during an emergency situation. Common control switches and LEDs include (at minimum) a Reset switch and LED, Alarm Silence switch and LED; Panel Silence switch and LED; and Drill switch and LED. Eight lines of 21 characters (168 characters total) display emergency information in a useful text format. The display provides a prioritised listing of any current alarms and supports expanded messaging for logical groups. The next figure (Fig.2) illustrates a typical layout of the module.

The eight-line text display area shows current date, current time, and number of alarms on the first line. The next lines show the first highest priority event, the last highest priority event and other information as applicable, so that operators can view alarm data without opening the door of the XLS1000. Note that an LCD Operator Interface is not required in remote nodes with no user interface requirements.

The LCD Operator Interface also provides a Command Menu for maintenance functions such as disabling alarms or generating reports for use by staff or service personnel.

Control/Display Modules

Control/display modules (CDMs) provide membrane switches with positive tactile feedback and coloured LEDs to give the emergency user the simplest of interfaces. To optimise system layout flexibility, Control/Display module locations are independent of the underlying connection hardware to the local rail module. The LCD is capable of displaying custom event messages of up to 42 characters.

Three basic modules are available for zone annunciation and to allow emergency services to control notification and auxiliary controls.

Panel Capacities

XLS1000 facilitates isolation of field wiring with building wiring terminations made to removable terminal blocks on the local rail modules. XLS1000 local rail modules include zone amplifiers, Loop Controllers, conventional hardwired modules, and the main CPU module. System design allows convenient separation of high voltage from power-limited wiring internal to the panel.

XLS1000 supports both single-node and multiple-node single network systems. As a stand-alone panel (or single node), up to four power supplies provide 28A of power with space available for 5 to 21 local rail modules. A single panel supports up to five Loop Controllers (250 intelligent or 198 analog addressable devices per loop, 1250 or 990 points total per node). With only conventional zones, panel capacity is up to 15 local rail modules which support 120 conventional zones. Up to half of the conventional zones can be Notification Appliance Circuits. An LCD Operator Interface and 19 Control Display module configurations are available.

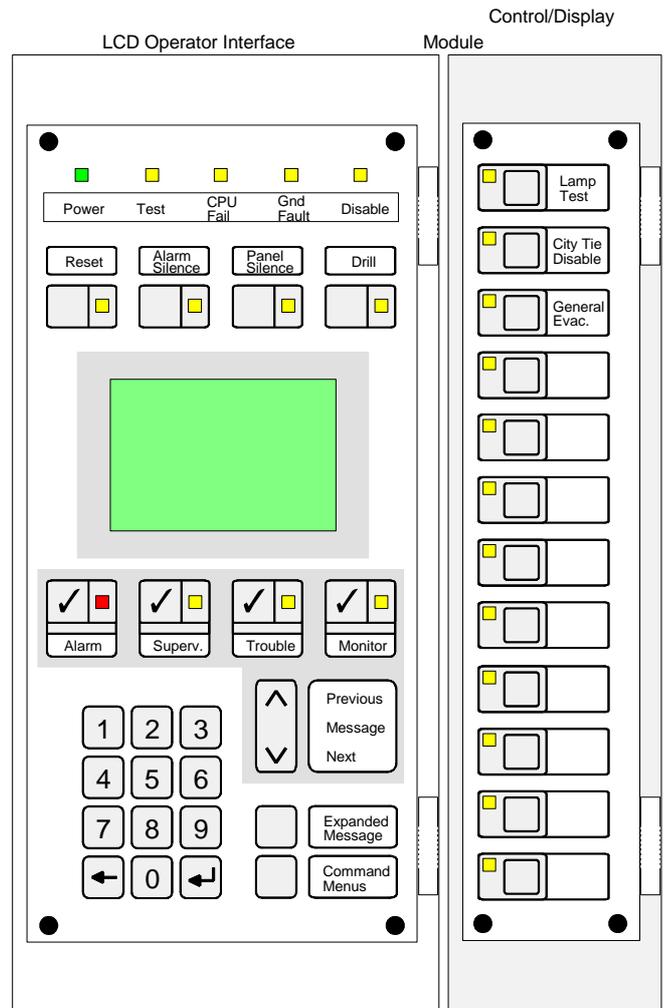


Fig.1: Optional LCD Operator Interface Module and Control/Display Module

Analog Addressable and Intelligent Devices

The XLS1000 fire alarm panel can support both the TC800 Series analog addressable sensors and modules as well as the microprocessor-based Signature Series intelligent devices.

The TC800 range offers a variety of single element smoke and heat sensors, a multiple element sensor, manual initiating devices and auxiliary modules to monitor and control external devices, with up to 198 devices per loop.

The Signature Series of devices offers a wide range of single- and multiple-element technology, intelligent microprocessor based detectors and input/output modules, with up to 250 devices per loop.

Depending on its configuration one XLS1000 can support five Signature loops (intelligent devices) or five analog addressable loops (TC800 Series devices) or a combination of both up to a maximum of 5 loops again.

Networks

Using the optional network card the XLS1000 can operate on a multi-priority, peer-to-peer token-ring network.

With 64 nodes supported on a network, the multi-priority token ring gives XLS1000 an exceptional alarm response time of less than 3 seconds across the network, virtually independent of the total number of nodes. The XLS1000 token-ring network configuration also affords long distances between nodes. The distance between panels using 14 AWG (2.087 sq.mm) wire is 5000 ft (1524 m). Total network length is in excess of 300,000 ft (91,440 m).

Network communication is via RS-485 serial ports. This two-wire circuit supports Class A or B operation. The XLS1000 network meets NFPA style 7 communications standards in the Class A configuration.

The XLS1000 uses distributed database technology designed to survive the rigors of fire and fire fighting. In a Class B configuration, a single break or short on the network wiring isolates the system into two groups of panels, each with one or more nodes. Each group of panels re-configures into a peer-to-peer sub network, working with their combined databases. In Class A, a single break or short on the network wiring causes the system to isolate the fault. Network communication continues uninterrupted. If multiple faults occur, the network re-configures into multiple networks and functions as described for Class B. The system continues to respond to operations at every node able to receive network messages with those nodes always executing the local response.

Alarm Annunciation

XLS1000 provides Alarm, Supervisory, Trouble, and Monitor operations. Annunciation is through the use of LED display strips complete with custom labels for each LED as to its function. Where applicable, control of remote smoke control devices is available at the control center. Switches with LEDs provide positive feedback to the operator of remote equipment status. For an example please see the Optional LCD Operator Interface Module and Control/Display Module figure (Fig.2).

System Operation

During system operation, continuous software supervision occurs in the background. The system monitors all tasks, checks all resources and supervises the accuracy of databases and tables.

Automatic alarm operations take place without the intervention of an operator. This provides occupant and building protection even when the system is unattended. The automatic alarm operations serve to monitor the building environment and evacuate occupants should a hazard occur. Additional features such as city ties, environmental interface controls and audio support enhance occupant evacuation and extend the function of the system to property protection.

Supervisory circuits monitor the critical functions of a sprinkler circuit. The system also follows the status of remote equipment.

Simplified Start-up

The Windows based System Definition (SDU) allows the programmer to quickly create system specific software on-site. It defines the network, panels, objects (zones, groups, and time-event sequences) and establishes all input/ output relationships, including code-mandated system responses. The SDU significantly reduces configuration, documentation and programming time.

When used with the Signature Series devices the XLS1000 does not require twisted or shielded alarm circuit wiring. In many cases the existing wiring from a previous installation can be used, resulting in lower installation costs. When the installation is upgraded at a later date, an electronic map of the existing installation is automatically generated, reducing troubleshooting significantly. These maps can also be used to identify any deviations between the specified and actual programming.

AUDIO EVACUATION AND FIREFIGHTER'S TELEPHONE SYSTEMS

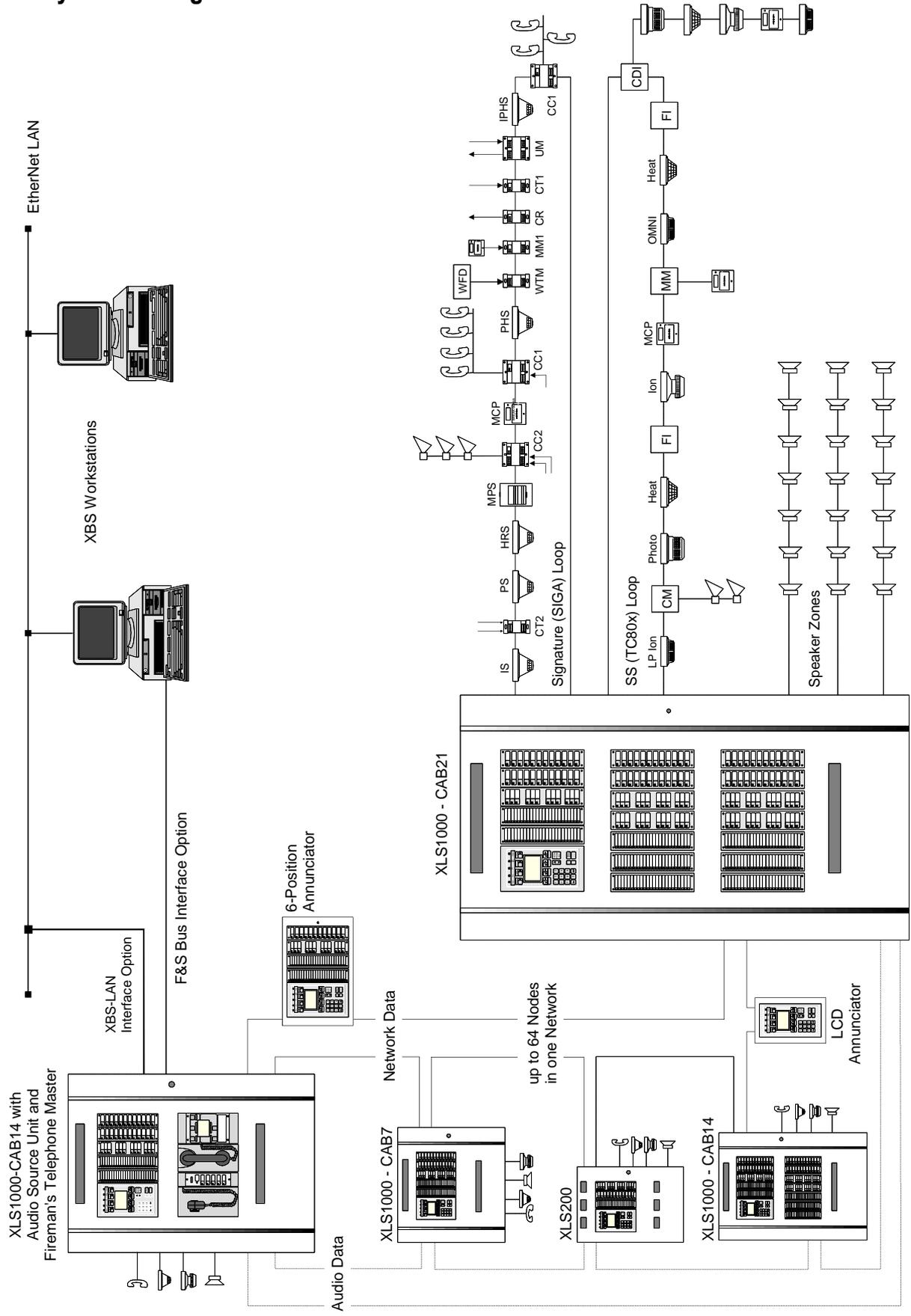
XLS1000 integrates audio components in its standard fire alarm cabinet assemblies. XLS1000 uses intelligent zone amplifiers to reduce wire runs and space needs at a central location. Audio control equipment and zone amplifiers use the same system power supplies as the fire alarm components. All these components use a common standby battery. For multiple-node systems, a single pair of wires carries eight channels of digital audio data between nodes. The system can deliver up to eight messages and/or signals simultaneously, so signalling messages to occupants are never interrupted. This feature eliminates confusion if the emergency user requires an audio channel with zone-specific messages.

The XLS1000 provides simple paging controls. ALL CALL operation selects all paging zones for message delivery. Page to EVACUATION operation automatically selects all areas in evacuation. Similarly, the user can Page to ALERT. Zoned paging requires the user to simply select a zone paging switch. After the user completes a page delivery, signalling automatically restores after the user releases the microphone talk key.

Audio system amplifiers can operate 25 VRMS or 70.7 VRMS speakers. The system provides simultaneous page, alert and evacuation signalling. The system provides the following paging common controls and indicators (at a minimum).

- Ready to page LED
- VU display of paging output level
- Single switch function for paging to all - Alert zones, Evacuation zones, or areas not programmed for signalling.

Typical System Configuration



SPECIFICATIONS

Dimensions:

Lobby Enclosures

Cabinet Type	Wallbox only (HxWxD)	Complete Panel (HxWxD) Surface Mounted	Complete Panel (HxWxD) Semi Flush Mounted
XLS-CAB5 (*)	22.37 in. x 14.0 in. x 3.86 in. 56.8 cm x 35.6 cm x 9.8 cm	24.25 in. x 16.4 in. x 5.5 in. 61.6 cm x 41.7 cm x 14.0 cm	24.25 in. x 16.4 in. x 1.65 in. 61.6 cm x 41.7 cm x 4.2 cm
XLS-CAB7-E (*)	23.2 in. x 24.0 in. x 3.86 in. 59.0 cm x 60.9 cm x 9.8 cm	25.5 in. x 27.34 in. x 5.5 in. 64.8 cm x 69.4 cm x 14.0 cm	25.5 in. x 27.34 in. x 1.65 in. 64.8 cm x 69.4 cm x 4.2 cm
XLS-CAB14-E (*)	35.5 in. x 24.0 in. x 3.86 in. 90.2 cm x 60.9 cm x 9.8 cm	37.75 in. x 27.34 in. x 5.5 in. 95.9 cm x 69.4 cm x 14.0 cm	37.75 in. x 27.34 in. x 1.65 in. 95.9 cm x 69.4 cm x 4.2 cm
XLS-CAB21-E (*)	47.75 in. x 24.0 in. x 3.86 in. 121.3 cm x 60.9 cm x 9.8 cm	50.0 in. x 27.34 in. x 5.5 in. 127.0 cm x 69.4 cm x 14.0 cm	50.0 in. x 27.34 in. x 1.65 in. 127.0 cm x 69.4 cm x 4.2 cm

Cabinets for Electrical Closets (Remote Chassis Cabinets)

Cabinet Type	Wallbox only (HxWxD)	Complete Panel (HxWxD) Surface Mounted	Complete Panel (HxWxD) Semi Flush Mounted
XLS-RCC7-E	n/a	23.25 in. x 25.0 in. x 6.75 in. 59.1 cm x 63.5 cm x 17.2 cm	n/a
XLS-RCC14-E	n/a	35.47 in. x 25.0 in. x 6.75 in. 90.1 cm x 63.5 cm x 17.2 cm	n/a
XLS-RCC21-E	n/a	47.72 in. x 25.0 in. x 6.75 in. 121.2 cm x 63.5 cm x 17.2 cm	n/a

(*) add 1/4 in. (6mm) to height and width to allow for knockouts when framing in wallbox for semi-flush mounting

Mounting:

Surface or semiflush

Finish:

All cabinets and doors have a textured white enamel finish, doors are also available in red.

Power Supply:

Input:

120 Vac \pm 15%, 60 Hz
230 Vac \pm 15%, 50/60 Hz

Outputs:

24Vdc @ 28.0A Total internal and auxiliary outputs
(up to 4 Power Supplies in one XLS1000)

Internal DC: 24Vdc @ 28.0 Amp maximum
Auxiliary DC: up to eight 24Vdc @ 3.5A max.
Supervised, power limited outputs

Battery Charging:

10-30 or 30-60 Amp-Hours
Temperature compensated dual rate, 1.5A/3.0A

Environmental Operating Limits:

Temperature: 32° to 120°F (0° to 49°C)
Humidity: 5 to 95% rh, noncondensing

Approvals:

UL
ULC
LPCB (EN54 Part 2 and Part 4)
CE

Ordering:**Lobby Enclosures - Outer doors with viewing window**

Catalog Number	Description	Capacity
XLS-CAB5	Complete Cabinet with wallbox and door, White (For non-EN54 Applications only)	5 Local Rail Modules (LRMs), One footprint and 1/2 footprint module
XLS-CAB5-R	Complete Cabinet with wallbox and door, Red (For non-EN54 Applications only)	5 Local Rail Modules (LRMs), One footprint and 1/2 footprint module
3-CAB7B-E	Wallbox only, White	Can accommodate one chassis
XLS-CAB7D-E	Inner door and outer doors for CAB7B	n/a
XLS-CAB7D-R-E	Red Door Assembly for 3-CAB7	n/a
3-CAB14B-E	Wallbox only, White	Can accommodate two chassis
XLS-CAB14D-E	Inner door and outer doors for CAB7B, White	n/a
XLS-CAB14D-R-E	Inner door and outer doors for CAB7B, Red	n/a
3-CAB21B-E	Wallbox only, White	Can accommodate three chassis
XLS-CAB21D-E	Inner door and outer doors for CAB7B, White	n/a
XLS-CAB21D-R-E	Inner door and outer doors for CAB7B, Red	n/a

Cabinets for Electrical Closets - No viewing window ("Remote Chassis Cabinets")

Catalog Number	Description	Capacity
XLS-RCC7R-E	Wallbox with outer louvered cover, Red	Can accommodate one chassis
XLS-RCC14R-E	Wallbox with outer louvered cover, Red	Can accommodate two chassis
XLS-RCC21R-E	Wallbox with outer louvered cover, Red	Can accommodate three chassis

Chassis Assemblies

Catalog Number	Description
3-CHAS	Chassis Assembly with no rails - Takes one chassis space in wallbox, no local rail module mounting, space for up to two power supplies and a 1/2 footprint module.
3-CHAS4	Chassis Assembly with 4 rail spaces - Takes one chassis space in wallbox, provides 4 local rail module spaces, provides space for the Audio Source Unit (ASU), space for one power supply and a 1/2 footprint module.
3-CHAS7	Chassis Assembly with 7 rail spaces - Takes one chassis space in wallbox provides 4 local rail module spaces, space for up to two power supplies and a 1/2 footprint module.

Local Rail Modules (LRMs)

Catalog Number	Description
3-CPU1	Central Processor Module
3-RS485(x)	Network Communication Card (plugs into back of 3-CPU1). Class-A or Class-B versions.
3-RS232	RS232 Communication Card (plugs into back of 3-CPU1)
3-XMEM	Memory Expansion Card (plugs into back of 3-CPU1)
3-SSDC	SIGA Data Controller Board (LRM)
3-AADCE	Analog Addressable (TC8xx Series Devices) Data Controller Module (LRM)
3-OPS	Off-Premise Signalling Module (LRM)
3-IDC8/4	Initiating Device Circuit Module (LRM)
3-ZAxx(x)	Zone Amplifier Module (LRM). Available Sizes: 20, 40, 90W. Class-A or Class-B versions.
3-LDSM	LED Display Support Module (LRM)
3-LRMF	Local Rail Module Filler (Blank cover for unused slots)
3-PPS/M	Primary Power Supply with local rail module, 120 Vac, 50/60 Hz, UL
3-BPS/M	Booster Power Supply with local rail module, 120 Vac, 50/60 Hz, UL
3-PPS/M-230-E	Primary Power Supply with local rail module, 230 Vac, 50/60 Hz, EN54 Compliant
3-BPS/M-230-E	Booster Power Supply with local rail module, 230 Vac, 50/60 Hz, EN54 Compliant

Interfaces

Catalog Number	Description
3-FIB(x)	Fibre Optic Communications Interface Card. Available in two versions: Class-A or Class-B
3-MPFIB	Mounting Plate for Fibre Optic Interface Card
14006098-646xxx	XLS/XBS LAN Interface Assembly, DC or AC powered, EtherNet or Token Ring Options
14507532-001	F&S Bus Interface

Control & Display Modules (CDMs)

Catalog Number	Description
3-LCD	Liquid Crystal Display Module (LCD Operator Interface)
3-24x	24 LED Display Module, Red (3-24R), Green (3-24G), and Yellow (3-24Y) LED variants available
3-12/Ry	12 Red, 12 Yellow LED Display Module (1 Red, 1 Yellow LED)
3-12Sx	12 Switches with 12 LEDs Display/Control Module Red (3-12SR), Green (3-12SG), and Yellow (3-12SY) LED variants available
3-12/S1RY	12 Switches with one Red and one Yellow LED per switch Display/Control Module
3-12/S2Y	12 Switches with two Yellow LEDs per switch Display/Control Module
3-12/S1GY	12 Switches with one Green and one Yellow LED per switch Display/Control Module
3-6/3S1G2Y	6 sets of three-position Switches with one Green and two Yellow LEDs per set Display/Control Module
3-6/3S1GYR	6 sets of three-position Switches with one Green, one Red and one Yellow LED per set Display/Control Module

Audio and Fire Telephone Controls

Catalog Number	Description
3-ASU/FT	Audio Source Unit with local microphone and Firefighter's Telephone Control Unit
3-ASU/4	Audio Source Unit with local microphone. Provides four local rail module spaces.
3-ASU	Audio Source Unit with local microphone.
3-FTCU	Firefighter's Telephone Control Unit
3-ASUMX/32	Audio Source Unit Memory Expansion Card. Provides 30 minutes of message time.

Accessories and Peripherals

Catalog Number	Description
XLS-BC	Remote Battery Cabinet, required when battery size is larger than 10 Ah (holds up to two 17Ah batteries)
XLS-BC-1	Remote Battery Cabinet, required when battery size is larger than 17 Ah (holds up to two 24 Ah batteries)
XLS-RCC7R-E	Remote Battery Cabinet for 40Ah and above size batteries, Red Requires a 3-BATS Battery Shelf for 55-65Ah batteries.
3-BATS	Battery Shelf for RCC Cabinets when used as Battery Cabinet
3-BTSEN	Battery Cabinet Temperature Probe
PT-1S	System Printer, 110 Vac
PT-1S-220	System Printer, 220 Vac
3-TAMP	Tamper switch for XLS200 enclosure. Mounts to side of cabinet
3-LKE	Language Label Kit, UK English (incl. labels for CPU, ASU, FTCU)
3-LKF	Language Label Kit, French (incl. labels for CPU, ASU, FTCU)
3-LKR	Language Label Kit, Russian (incl. labels for CPU, ASU, FTCU)
3-LKS	Language Label Kit, Spanish (incl. labels for CPU, ASU, FTCU)

Batteries

Catalog Number	Description
12V10A	12V, 10Ah Battery (two required for one panel)
12V17A	12V, 17Ah Battery (two required for one panel)
12V24A	12V, 24Ah Battery (two required for one panel)
12V40A	12V, 40Ah Battery (two required for one panel)
12V50A	12V, 50Ah Battery (two required for one panel)
12V55A	12V, 55Ah Battery (two required for one panel)
12V65A	12V, 65Ah Battery (two required for one panel)

Honeywell

Comfort from Experience

Home and Building Control

Honeywell Inc.
Honeywell Plaza
P.O. Box 524
Minneapolis MN 55408-0524

Home & Building Control

Honeywell GmbH
Honeywellstrasse
63477 Maintal 1
Germany

European Centre of Excellence

Fire Solutions
Lovelace Road, Southern Industrial Area
Bracknell, Berkshire, RG12 8WD
United Kingdom