ES-1000X Series

Intelligent Addressable FACP with 954 Point Capacity

FIRE·LITE ALARMS by Honeywell

Addressable Fire Alarm Control Panels

General

The **Fire•Lite ES-1000X, ES-1000XC, and ES-1000XI** are intelligent addressable Fire Alarm Control Panels (FACP) with a pre-installed loop card. The ES-1000X control panels support up to 318 addressable devices per Signaling Line Circuit (SLC) (Digital Communication Loop) (DCL) loop (159 detectors and 159 modules) with a maximum of three loops. With an extensive list of powerful features, the ES-1000X programs just like Fire•Lite's other addressable products while offering expanded support for up to 954 devices for larger and more complex installations.

The ES-1000X and ES-1000XC feature a pre-installed IPOTS-COM communicator which transmits system status (alarms, troubles, AC loss, etc.) to a Central Station via the public switched telephone network. The 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 using the CLSS Pathway or GSM Communicators.

Remote and local programming of the control panel is possible using the FS-Tools Upload/Download utility. Programming databases can be uploaded/downloaded via the panel's USB port and thumb drive. This allows download of the entire program or upload of the entire program, history file, walk-test data, current status and system voltages.

The power supply and all electronics are contained on a circuit board supported on a new quick install chassis and housed in a metal cabinet. Available accessories include local and remote upload/download software, remote annunciators, and reverse polarity/city box transmitter (4XTMF).

Features

- Listed to UL Standard 864, 10th edition
- Pre-installed IPOTS-COM Ethernet IP and POTS (Plain Old Telephone Service) Central Station Communicator (ES-1000X/C)
- Optional CLSS or GSM Central Station Communicators
- Compatible with SWIFT® wireless devices
- Four independently programmable, built-in, Class A or Class B NAC circuits
- Selectable strobe synchronization for System Sensor®, Wheelock®, and Gentex® devices
- Four programmable function keys for ease of maintenance
- Two programmable relays and one fixed trouble relay
- Built-in Programmer
- Integral 80-character LCD display with backlighting
- Real-time clock/calendar with automatic daylight savings control
- History file with 1,000 event capacity
- Auto-programming (learn mode) reduces installation time. Reports two devices set to the same address
- Addressable sounder base
- Multi-criteria detector (smoke, heat, CO) with programmable response
- Control module delay timer
- Automatic detector sensitivity testing (NFPA 72 compliant)
- Automatic device type-code verification
- Point trouble identification
- Waterflow selection per module point

- Alarm verification selection per detector point
- Maintenance alert warns when smoke detector dust accumulation is excessive
- One-person audible or silent walk test with walk-test log and printout
- System alarm verification selection per detector point
- PAS (Positive Alarm Sequence) and Pre-signal per point (NFPA 72 compliant)
- Up to 16 ANN-Bus annunciators- 8 per each ANN-Bus
- Remote Acknowledge, Alarm Silence, Reset and Drill via addressable modules or remote annunciator
- Upload/Download of program and data via USB with optional FS-Tools Programming Utility

SLC(DCL) COMMUNICATION LOOP

- LiteSpeed™ polling protocol for faster SLC (DCL) response time
- SLC (DCL) operates up to 10,000 ft. (3,000 m) in LiteSpeed mode with twisted, unshielded wire
- Single addressable SLC (DCL) loop, expandable up to three, which meets NFPA Class B, Class A, and Class X requirements
- Two additional SLC (DCL) loops available using the SLC-3LS Loop Expander Cards
- 318 addressable device capacity (159 addressable detectors and modules) per SLC (DCL) loop.
- Compatible with Fire•Lite's addressable devices (refer to the *SLC Wiring Manual*)

NOTIFICATION APPLIANCE CIRCUITS (NACS)

- Four independently programmable output circuits. Circuits can be configured for Class A and Class B outputs
- Silence Inhibit and Autosilence timer options
- Continuous, March Time, Temporal, or California code for main circuit board NACs with two-stage capability
- Selectable strobe synchronization per NAC
- 3 A special application, 300mA regulated, total power for NACs

NOTE: *Maximum or total 24VDC system power shared between all NAC circuits and Auxiliary Power circuits is 8.0 A*

PROGRAMMING AND SOFTWARE

- Auto-programming (learn mode) reduces installation time
- Custom English labels (per point) may be manually entered or selected from an internal library file
- Two programmable Form-C relay outputs
- 256 software zones
- Continuous fire protection during online programming
- Program Check automatically catches common errors not linked to any zone or input point
- **OFFLINE PROGRAMMING:** Create the entire program in your office using FS-Tools, a Windows®-based software package, and upload/download system programming locally. Offline programming requires an ethernet connection. FS-Tools is available on www.firelite.com.

User interface

LED INDICATORS

- Fire Alarm (red)
- CO Alarm (yellow)
- AC Power (green)
- Supervisory (yellow)
- Trouble (yellow)
- Ground fault (yellow)
- Battery fault (yellow)
- Disabled (yellow)
- Maintenance (yellow)
- Communication (yellow)
- Alarm Silenced (yellow)
- F1-F4 Function Keys (yellow)

KEYPAD

- 16 key alpha-numeric pad
- Acknowledge
- Alarm Silence
- Drill (Manual Evacuate)
- Reset (lamp test)
- Four (4) programmable function keys

Product Line Information

ES-1000X: Addressable Fire Alarm Control Panel with one SLC loop. Includes main circuit board with display, pre-installed communicator, chassis with transformer, backbox with dress panel and door, plastic bag containing screws, cables, key, etc.

ES-1000XC: Addressable Fire Alarm Control Panel with one DCL loop for Canadian applications. Includes main circuit board with display, pre-installed communicator, chassis with transformer, backbox with dress panel and door, plastic bag containing screws, cables, key, etc.

ES-1000XI: Addressable Fire Alarm Control Panel with one SLC loop. Includes main circuit board with display, chassis with transformer, backbox with dress panel and door, plastic bag containing screws, cables, key, etc., manual.

SLC-3LS: Optional loop expander card. Maximum 2 per panel.

HW-AV-LTE-M: CLSS Dual-Path LTE Communicator with Dial Capture Interface

HW-TG7FS-A / HW-TG7S-V: CLSS-Enabled 5G /LTE-M Commercial Fire Alarm Communicators for AT&T® and Verizon®

HW-TG7FE-A / HW-TG7FE-V: CLSS-Enabled 5G/LTE-M Dual Path Commercial Fire Alarm Communicators for AT&T and Verizon

HW-TG7FP-A / HW-TG7FP-V: CLSS-Enabled 5G/LTE-M Sole Path Commercial Fire Alarm Communicators for AT&T and Verizon

FS-Tools: Programming software for Windows-based PC computer. Available for download at www.firelite.com.

BB-2F: Optional cabinet for one or two modules.

BB-6F: Optional cabinet for up to six modules mounted on CHS-6 chassis.

BB-26: Battery backbox, holds up to two 25 AH batteries and CHG-75.

BB-55F: Battery box, houses two 55 AH batteries

CHS-6: Chassis, mounts up to six multi-modules in a BB-6F cabinet.

CHG-75: Battery charger for lead-acid batteries with a rating of 25 to 75 AH.

CHG-120F: Remote battery charging system for lead-acid batteries with a rating of 55 to 120 AH. Requires additional BB-55F for mounting.

BAT Series: Batteries, see data sheet DF-52397.

PRN Series: UL listed compatible event printer. Uses tractor-fed paper.

OPTIONAL EQUIPMENT

4XTMF Reverse Polarity Transmitter Module: Provides a supervised output for local energy municipal box transmitter, alarm and trouble. Includes a disable switch and disable trouble LED.

FL-PS / HPF-PS Series Power Supplies: Optional NAC Expander power supply with either 6 amps or 10 amps power.

COMPATIBLE ANNUNCIATORS

ANN-80: Remote, red LCD annunciator mimics the information displayed on the FACP LCD display. Recommended wire type is unshielded.

ANN-100: Remote LCD annunciator mimics the information displayed on the FACP LCD display. Recommended wire type is un-shielded. For use in FM applications only.

ANN-I/O: LED Driver Module provides connections to a user supplied graphic annunciator. (See DF-52430.)

ANN-LED: Annunciator Module provides three LEDs for each zone: Alarm, Trouble, and Supervisory. Ships with red enclosure. *(See DF-60241.)*

ANN-RLED: Provides alarm (red) indicators for up to 30 input zones or addressable points. *(See DF-60241.)*

ANN-RLY: Relay Module provides 10 programmable Form-C relays. Can be mounted inside the cabinet. (See DF-52431.)

ANN-S/PG: Serial/Parallel Printer Gateway module provides a connection for a serial or parallel printer. *(See DF-52429.)*

ADDRESSABLE DEVICES

All feature a polling LED and rotary switches for addressing.

SD365(A): Addressable low-profile photoelectric smoke detector. LiteSpeed only.

SD365(A)-IV: Addressable low-profile photoelectric smoke detector. Ivory. LiteSpeed and CLIP mode.

SD365T(A): Addressable low-profile photoelectric smoke detector with thermal sensor. LiteSpeed only.

SD365T(A)-IV: Addressable low-profile photoelectric smoke detector with thermal sensor. Ivory. LiteSpeed and CLIP mode.

SD365R(A): Remote test capable addressable photoelectric smoke detector for use with DNR(W) duct detector housing. LiteSpeed only.

SD365R(A)-IV: Remote test capable addressable photoelectric smoke detector for use with DNR(W) duct detector housing. Ivory. LiteSpeed and CLIP mode.

SD365CO: Addressable, low-profile device that provides fire, heat, and carbon monoxide (CO) detection, LiteSpeed only.

SD365CO-IV: Addressable, low-profile device that provides fire, heat, and carbon monoxide (CO) detection. Ivory. LiteSpeed and CLIP mode.

H365(A): Low-profile 135°F fixed thermal sensor. LiteSpeed only.

H365(A)-IV: Low-profile 135°F fixed thermal sensor. Ivory. LiteSpeed and CLIP mode.

H365R(A): Low-profile, intelligent, rate-of-rise thermal sensor. LiteSpeed only.

H365R(A)-IV: Low-profile, intelligent, rate-of-rise thermal sensor. Ivory. LiteSpeed and CLIP mode.

H365HT(A): Low-profile intelligent 190°F/88°C fixed thermal sensor. LiteSpeed only.

H365HT(A)-IV: Low-profile intelligent 190°F/88°C fixed thermal sensor. Ivory. LiteSpeed and CLIP mode.

D365PL: Low-flow non-relay duct-detector housing; includes SD365R.

Legacy Devices

CP355(A): Addressable low-profile ionization smoke detector.

SD355(A): Addressable low-profile photoelectric smoke detector.

SD355T(A): Addressable low-profile photoelectric smoke detector with thermal sensor.

SD355R(A): Remote test capable addressable photoelectric smoke detector for use with DNR(W) duct detector housing.

SD355CO: Addressable, low-profile device that provides fire, heat, and carbon monoxide (CO) detection.

H355(A): Fast-response, low-profile heat detector.

H355R(A): Fast-response, low-profile heat detector with rate-of-rise option.

H355HT(A): Fast-response, low-profile heat detector that activates at 190°F/88°C.

AD355(A): Low-profile, intelligent, “Adapt” multi-sensor detector (B350LP base included).

B200S(A)(-WH)(-IV): Programmable, addressable sounder base.

B200SR(A)(-WH)(-IV): Addressable sounder base.

B200S-LF(-WH)(-IV): Programmable, addressable sounder base, low-frequency.

B200SR-LF(-WH)(-IV): Addressable sounder base, low-frequency.

BEAM355: Intelligent beam smoke detector.

BEAM355S: Intelligent beam smoke detector with integral sensitivity test.

D355PL(A): InnovairFlex low-flow non-relay duct-detector housing; includes SD355R.

DNR(A): InnovairFlex low-flow non-relay duct-detector housing. (Order SD355R(A)/SD365R(A) separately.)

DNRW: InnovairFlex low-flow non-relay duct-detector housing, with NEMA-4 rating. Watertight. (Order SD355R(A)/SD365R(A) separately.)

Addressable Modules

CMF-300: Addressable Control Module for one Class B or A zone of supervised polarized Notification Appliances. Mounts directly to a 4.0" (10.16 cm.) electrical box. Notification Appliance Circuit option requires external 24 VDC to power notification appliances.

CMF-300-6: Six-circuit supervised control module. Mount one or two modules in a BB-2F cabinet (optional). Mount up to six modules on a CHS-6 chassis in a BB-6F cabinet.

CRF-300: Addressable relay module containing two isolated sets of Form-C contacts, which operate as a DPDT switch. Mounts directly to a 4.0" (10.16 cm.) box, surface mount using the SMB500.

CRF-300-6: Six-relay control module (Form-C relays). Mount one or two modules in a BB-2F cabinet (optional). Mount up to six modules on a CHS-6 chassis in a BB-6F cabinet.

I300: This module isolates the SLC (DCL) loop from short circuit conditions (required for Class A or Class X operation).

ISO-6: Six-fault isolator module. Mount one or two modules in a BB-2F cabinet (optional). Mount up to six modules on a CHS-6 chassis in a BB-6F cabinet.

MDF-300: Dual Monitor Module. Same as MMF-300 except it provides two Class B-only IDCs.

MMF-300: Addressable Monitor Module for one zone of normally-open dry-contact initiating devices. Mounts in standard 4.0" (10.16 cm.) box. Includes plastic cover plate and end-of-line resistor. Module may be configured for either a Class B or Class A IDC.

MMF-300-10: Ten-input monitor module. Mount one or two modules in a BB-2F cabinet (optional). Mount up to six modules on a CHS-6 chassis in a BB-6F cabinet.

MMF-301: Miniature version of MMF-300. Excludes LED and Class A wiring option. Connects with wire pigtails. May mount in device backbox.

MMF-302: Similar to MMF-300. Addressable Monitor Module for one zone of conventional two-wire detectors. Requires resettable 24 VDC power. Refer to the *Device Compatibility Document* for listed compatible devices and quantity limitation.

MMF-302-6: Six-zone interface module. Mount one or two modules in a BB-2F cabinet (optional). Mount up to six modules on a CHS-6 chassis in a BB-6F cabinet.

SMB500: Used to mount all modules except the MMF-301 and M301.

SWIFT Wireless Devices

W-GATE(A): LiteSpeed Wireless Gateway

W-SD355(A): LiteSpeed intelligent, wireless photo detector.

W-H355R(A): LiteSpeed intelligent wireless rate of rise (135°) heat detector.

W-SD355T(A): intelligent wireless photo/heat detector.

W-H355(A): LiteSpeed intelligent wireless fixed-temperature (135°) heat detector.

W-MMF(A): LiteSpeed Intelligent wireless monitor module.

W-CRF(A): LiteSpeed Intelligent wireless relay module.

W-BG12LX(A): LiteSpeed Intelligent wireless pull station.

WAV-RL, WAV-WL,WAV-CRL,WAV-CWL: LiteSpeed Intelligent 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 firelite.com.

NOTE: *For more information on Compatible Addressable Devices for use with the ES-1000X, see the following data sheets (document numbers): AD355(A) (DF-52386), AD365(A) (DF-62007), BG-12LX (DF-52013), CMF-300-6(A) (DF-52365), CRF-300-6(A) (DF-52374), CMF(A)/CRF(A) Series (DF-52130), CP355(A) (DF-52383), H355(A) Series (DF-52385), H365(A) Series (DF-61011), I300(A) (DF-52389), ISO-6(A) (DF-60485), MMF-300(A) Series/MDF-300(A) (DF-52121), MMF-300-10(A) (DF-52347), MMF-302-6(A) (DF-52356), SD355(A)/SD355T(A) (DF-52384), SD365(A) Series (DF-61010), SD355CO (DF-60963) SD365CO (DF-62000).*

ADDRESSABLE DEVICE ACCESSORIES

End-of-Line Resistor Assembly (R-47K and R-3.9K): The 47k ohm assembly supervises the MMF-300(A), MDF-300(A), MMF-301(A), and CMF-300(A) module circuits. The 3.9k ohm assembly supervises the MMF-302(A) module circuit. These resistors are included with each module.

Power Supervision Relay: Supervises the power to 4-wire smoke detectors and notification appliances.

Wiring Requirements

While shielded wire is not required, it is recommended that all SLC (DLC) wiring be twisted-pair to minimize the effects of electrical interference. Refer to the panel manual for wiring details.

SYSTEM SPECIFICATIONS

System Capacity

- Maximum Intelligent Signaling Line Circuits 3
- Addressable device capacity per loop 318
- Programmable software zones 256
- Annunciators 16

Electrical Specifications

AC Power: 120/240 VAC, 50/60 Hz, 2.4 A. Wire size: minimum 14 AWG (2.00 mm2) with 600 V insulation. Non-power-limited, supervised.

Battery: Minimum System Battery Size: 18 Amp Hour, Maximum Battery Charger Capacity: 55 Amp Hour, FACP cabinet holds maximum of two 26 Amp Hour batteries.

Communication Loop: Supervised and power-limited.

Notification Appliance Circuits: Terminal Block provides connections for four NACs, Class B or Class A. Special Application power. Power-limited, supervised circuitry. Maximum signaling current per circuit: 3.0 amps special application, 300mA regulated. End-of-Line Resistor: 4.7k ohm, ½ watt (P/N 71252 UL listed) for Class B NAC; system capable of 1.9 kΩ - 22 kΩ ELR range. Refer to the *Fire•Lite Device Compatibility Document* for listed compatible devices.

Two Programmable Relays and One Fixed Trouble Relay: Contact rating: 2.0 A @ 30 VDC (resistive), 0.5 A @ 30 VAC (resistive). Form-C relays, non-power-limited, non-supervised.

Cabinet Specifications

Door: 20.30" (51.56 cm.) high x 20.57" (52.25 cm.) wide x 0.72" (1.82 cm.) deep. **Backbox:** 20.00" (50.8 cm.) high x 20.50" (52.07 cm.) wide x 6.755" (13.34 cm.) deep.

Shipping Specifications

Weight: 41.0 lbs. (18.6 kg.) **Dimensions:** 22.0625” (53.088 cm.) high x 23.875” (60.643 cm.) wide x 7.75” (19.69 cm.) deep.

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 (noncondensing) 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 ES-1000X complies with the following NFPA 72 Fire Alarm Systems requirements:

- **LOCAL** (Automatic, Manual, Waterflow and Sprinkler Supervisory)
- **AUXILIARY** (Automatic, Manual and Waterflow) (requires 4XTMF)
- **REMOTE STATION** (Automatic, Manual and Waterflow) (Where a DACT is not accepted, the alarm, trouble and supervisory relays may be connected to UL 864 listed transmitters. For reverse polarity signaling of alarm and trouble, 4XTMF is required.)
- **PROPRIETARY** (Automatic, Manual and Waterflow)
- **CENTRAL STATION** (Automatic, Manual and Waterflow, and Sprinkler Supervised)
- **DAC, PSDN** (Digital Alarm Communicator, Packet-switched Data Network)

Agency Listings

The listings and approvals below apply to the basic ES-1000X control panel. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL:** S624
- **CSFM:** 7165-0075:0500
- **FDNY:** COA #2023-TMCOAP-006158-CERT

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Country of Origin: USA