



StarLink FireLink FACP

DESCRIPTION

NAPCO's FireLink is a series of state of the art Fire Alarm Control Panels, outfitted with integral communicator with CAT-M1 technology, with your choice of plans for sole path, dual path Cell/IP or 'Super Dual' Cell-only Supervised Dual Path. FireLink includes seven on-board 2-wire fire capable conventional zone inputs and the ability to support up to 32 zones of any combination of addressable or conventional fire detection devices. FireLink includes an integral door-mounted fire annunciator with the ability to support an additional 6 remote annunciators. The communicator is fully supervised by the system and any communication related troubles will be locally annunciated by the system within 200 seconds. FireLink requires a dedicated 120V AC branch circuit and includes a 4A, 24V DC power supply. Also included are two 2A, 24V NAC circuits.



FIRELINK SYSTEM SPECIFICATIONS

- FACP: 8 to 32 Zone Conventional Fire Alarm Control Panel (Firewolf®), 8 conventional fire zones, suitable for 2-wire fire, expandable to 32; 2 programmable NAC circuits, 2A max @ 24V
- Annunciator: Menu-driven operation with backlit custom alphanumeric display and functionality for Reset, Acknowledge, Silence (with disable)
- Sole Path CAT-M1 technology, for Commercial Fire applications, reports on cyber-protected multibillion-dollar cellular CAT-M1 networks, for maximum longevity, security & liability protection, code-compliant, replaces 2 POTs lines
- Dual Path CAT-M1 technology Communicator (StarLink Fire) for Commercial Fire applications
- Reports to any Central Station, via dial up or IP, without any special equipment
- Integrated sync and smart operation support on each NAC for System Sensor™ and Wheelock® Notification Devices
- Power Supply, 4A @ 24V
- Regulated Auxiliary Power Supply – Commercial Fire, 12V regulated 2A
- 2 Onboard serial ports – one for high-speed local downloading
- Preprogrammed, or optional Quickloader® Software custom programmable. Cloud Programming capable through any mobile device
- Conveniently Preprogrammed –Default Program:
 - Zone 1: Waterflow, CID Code E113
 - Zone 2: Supervisory (Tamper) , CID Code E200
 - Zone 3: Pull Station, CID Code E115
 - Zone 4: Smoke Detector, CID Code E111
 - Zone 5: Conventional Fire Zone, CID Code E110
 - Zone 6: Conventional Fire Zone, CID Code E110

*FireLink Series communicators can be ordered to be outfitted with Sole Path CAT-M1 Cellular communications formatting for Residential Fire applications or Dual Path CAT-M1 Cellular communications formatting for Commercial Fire applications.

FLX2-32

FireLink 8 to 32 Zone 24V Conventional Commercial Fire Alarm Control Panel with Integral StarLink Communicator Submittal Data Sheet

Model includes: FireLink FACP with internal Communicator with choice of plans for sole path, dual path Cell/IP or Super Dual Cell-only Supervised Dual Path; includes fire annunciator on front door:

- **FLX2-32:** 8 to 32 zones



AGENCIES, COMPLIANCE

- UL 864 10th Edition: Commercial Fire[†]
- UL 1635: Standard for Digital Alarm Communicator System Units
- NFPA 72 National Fire Alarm Code (Editions 2016, 2013, 2010, 2007)
- CSFM: California State Fire Marshall[†]
- NYCFD: NYC Fire Department[†]

[†]Not applicable to sole path (sole path can be Residential Fire).
Not accepted by CSFM and NYFD certifications.

- Zone 7: Conventional Fire Zone, CID Code E110
- Zone 8: Supervisory (Cell/IP Communicator Trouble), CID Code E200
- NAC A enabled for Zones 1, 3 - 7
- NAC D enabled for Zone 1 Waterflow
- Locking Mercantile Enclosure for surface mount or recess mounting (between the studs) 16"x 14.25" x 5.2" (H x W x D) without cover. Houses up to 16Ah @ 24V battery backup capacity. **Note:** For flush mount applications, use external antennae (see ordering information)
- 36-Month Napco Warranty

ELECTRICAL RATINGS

Control Panel Power Supply Input Power: 120AC 60Hz, 3A; maximum 15A dedicated branch circuit.

Control Panel Input Power: 24VDC, maximum 7A.

Control Panel Standby Current Draw: 96mA@24VDC.

Communicator Standby Current Draw: 101mA@12VDC.

Output Power:

Note: All outputs circuits are power-limited.

Note: Provides four 2A NAC circuits (three 24V and one 12V or 24V selectable).

- **NAC A, NAC B, NAC C:** Regulated 24V NAC circuit; 2A maximum. When configured for 24V Auxiliary Power, it is a Special Application output only listed with the GEMC-24VR. The GEMC-24VR output is Regulated 24VDC, 1A maximum.
- **NAC D: When configured for 24V:** Regulated 24V NAC circuit; 2A maximum. When configured for 24V Auxiliary Power, it is a Special Application output only listed with the GEMC-24VR. The GEMC-24VR output is Regulated 24VDC, 1A maximum.
- **NAC D: When configured for 12V:** Regulated 12V NAC circuit, 2A maximum or Regulated 12V Auxiliary Power, 1.4A maximum.
- **Fire Aux. Relay Output:** Wet: 12V Regulated, 750mA max.; Dry: Remove shunt for dry contacts; see Wiring Diagram; dry contact Form C relay rated 30VAC / VDC, 2.5A maximum.
- **Two Active low programmable outputs:** (2A maximum).
Note: Relies on 2A over-current protection of connected circuit.
- **Trouble Sounder Output:** 12V Regulated, 30mA.
- **E7 and E8 Terminals:** Active low open collector outputs; 0.1V, 2A (wire only to power limited circuits 30VDC or less).
- **Auxiliary Power Output:** Output 12V Regulated @ 750mA maximum current.
- **Remote Bus Power Output:** 12V Regulated @ 750mA maximum current, supporting up to 7 keypads, zone expansion modules, or wireless receivers, etc.
- **Auxiliary Power 24V Regulated:** Can only be supplied through NAC A or NAC D (configured for 24V) programmed for Reverse Polarity and wired to GEMC-24VR. 1.0A Maximum (must reduce total combined standby and alarm current by 1.1 times 24V Regulated current).
- **Maximum Combined 12V Regulated standby current:** Remote Power + Auxiliary Power + NAC D 12V Output and programmed for Reverse Polarity + AUX relay if shunt connector is installed:
plus GEMC-BM total standby current plus 25mA;

plus Fire Relay: 35mA (when energized);

plus GEMC-F8ZCPIM total combined standby current +120mA = 1.4A.

If additional 12V current is required, use the GEMC-12V2APS -CF (for Fire applications) and/or GEMC-12V2APS-R (for non-Fire applications) Auxiliary Power supplies.

- **Maximum Total Combined 12V Regulated Standby and Alarm Current:** Remote Power + Auxiliary Power + NAC D 12V Output and programmed for Reverse Polarity + AUX relay if shunt connector is installed + NAC D alarm current:
plus GEMC-BM total combined standby and alarm current + 25mA;
plus GEMC-F8ZCPIM total standby and alarm current).
 - **Maximum Total Combined 24V Standby:** (Total combined 12V standby plus alarm current times 0.6) + NAC A-D 24V standby current:
plus (GEMC-F8ZCPIM total combined standby + 120mA) times 0.6;
plus GEMC-FW-SLC total combined 24V standby current;
 - **Maximum Total combined 24V Standby and Alarm Current:** (Total combined 12V standby plus alarm current times 0.6) + NAC A-D 24V standby plus alarm current:
plus GEMC-FW-SLC total combined 24V standby and alarm current;
 - **Maximum Battery Charging Current:** Refer to the GEMC-PS24V7A or GEMC-PS24V4A power supply specifications. The maximum charging current (trickle charge and fast charge) and the maximum ampere-hour capacity of the battery that the product is intended to charge:
- Standby Time:** See WI1653.
- Battery Power:** See WI1646 and WI1702.
- Loop Voltage:** See WI1653.
- Loop Current:** See WI1653.
- Loop Resistance:** See WI1653.
- Operating Environment:** 0-49°C (32-120°F).
- For systems that include CO detectors, the system must be monitored by a central station.**
- Important:** To minimize the possibility of crosstalk, care should be taken when running digital communication circuits (for example, 12V digital keypad bus wiring, Burg SLC and Fire SLC circuit wiring)

NOTICE TO AUTHORITIES HAVING JURISDICTION, USERS, INSTALLERS, DEALERS, AND OTHER AFFECTED PARTIES

FIRE PROGRAMMING OPTION	PERMITTED IN UL864? (Y/N)	AVAILABLE SETTINGS	REQUIRED UL 864 SETTINGS
Unattended Remote Downloading	No	Enable / Disable	Disabled (Jumper 1 installed). Also required for Commercial installations.
IN2, IN3, IN4 and IN5 Unsupervised	Yes	Supervised / Unsupervised	Unsupervised using conduit within 20 feet of FACP (default). If not using conduit, install Jumpers 4 and 5 and EOL Resistors.
7 Day Supervision, Radio to NOC	No	200 seconds, 5 minutes, 6 minutes, 60 minutes, 6 hours, 7 days	200 seconds, 5 minutes, 60 minutes. 6 Hours permitted in Commercial Fire UL 864 with Dual Path enabled.
Trouble on Radio or IP Path (Annunciate / Report)	Yes	Either Path or Both Paths	Either Path (annunciation and report of trouble)
Wi-Fi Module	Yes	Enable / Disable	May be enabled as a primary reporting path for Fire

in close proximity to each other, such as within multi-conductor cables or the same conduit over long distances. All wiring must comply with the NEC (National Electrical Code) and/or NFPA 70 codes.

FACP EXPANSION OPTIONS

- Expandable with conventional, SLC addressable or commercial wireless devices
- Main FACP board supports 1 Addressable Fire SLC (addressable Signaling Line Circuit controllers)
- Fire 4-wire bus for annunciators and non-SLC (conventional) devices, including 12V devices
- Supports up to 6 additional Red fire annunciators, GEMC-FK1, mounted anywhere on the bus (flashable/updatable firmware)
- Addressable SLC Loop Isolator (optional use - for fire applications requiring increased circuit integrity, e.g., meets Class A, Style 7 loop requirements.
- SLC Fire Devices supported: Analog smoke detector, analog heat detector, duct detector, pull station, conventional zone module & short circuit isolator

FACP INPUTS

- Up to 32 Zones/Points from a wide range of initiating devices (see ordering info.)
- Addressable SLC Loop – supports up to 1, 32 point loop
- Commercial RF Receiver supports GEMC Commercial Wireless Fire devices: Wireless Smoke Detector, Wireless Heat Detector, Wireless contact transmitter (for waterflow, tamper, pull stations, etc.) Model GEMC-WL-WD2
- Conventional 1- to 4-zone EZM Expansion modules on the 4-wire fire bus or SLC loops
- Conventional 2-wire or 4-wire smoke detector inputs
- SLC Fire Devices supported: analog smoke detector, analog heat detector, duct detector, pull station, conventional zone module & short circuit isolator

FACP OUTPUTS

- Up to 96 outputs
- Four onboard Class B or 2 Class A NAC circuits, 2 amps each, total 2A @ 24V
- Onboard Wheelock and System Sensor NAC sync/strobe/horn protocol allows initial silence of audible appliances while maintaining visual notification, without the use of additional modules
- Addressable SLC Fire Devices: Supervised relay, unsupervised relay
- Fire 4-wire bus devices: 8 zone form C relay (GEMC-RM3008), 8 open collector output (GEMC-OUT8)
- Support for Legacy and Existing Notification Appliances – One NAC output configurable for 12V for easy retrofit compatibility
- UL Regulated NAC output
- Automatic drift compensation for SLC smoke detectors
- Programmable obscuration level by smoke detector device
- Tri-Mode Smoke Obscuration Report (for addressable detectors) generated remotely or locally (see WI2492LF instructions)

SOLE PATH CELLULAR COMMUNICATOR SPECS

- Integrated StarLink Fire Cellular Communicator® - Code-compliant, replaces 2 POTs lines
- CAT-M1 technology promises the longest cellular lifespan, deliv-

ering over 10+ years service for your accounts (**Note:** Longevity claims are those of the cellular carriers)

- Reports to any Central Station, via dial up or IP, without any special equipment
- Broadest coverage footprint available, Connected by Verizon® / AT&T® Using CAT-M1 technology
- Communicates critical life and safety alarm reports on cyberprotected multibillion-dollar cellular networks, for maximum security & liability protection
- Easy, flexible 24/7 activation & online account management – Ultra-affordable plans are available to meet various codes and requirements, with supervisory check-ins from 200 seconds, to 5-minutes; 1 hour or 6 hours
- Patented Signal Boost™ signal amplification circuit and high-gain dual diversity, precision twin antennae design & Signal Boost™ circuitry ensure greater range & reliability, maximizing signal acquisition and null-avoidance, receiving signals simultaneously on both antennae
- Operating Environment: 0 to 49° C (32-120°F), up to 93% humidity (non-condensing)

ORDERING INFORMATION

FLX2-32 - Firewolf 8 Zone 24V Conventional Commercial Fire Alarm Control Panel with onboard StarLink Fire® Sole Path, Verizon/AT&T CAT-M1 technology Alarm Communicator and integral menu-Driven LCD annunciator, w/ 4 Amp, 24V Power Supply. Optionally expandable up to 32 Points / Zones via commercial addressable, wireless or conventional fire devices (2 on board NACs providing up to 4A notification power). Locking, Mercantile Red Enclosure, (surface or flush mount), removable 16 x 17" door, with 14.25" x 16" base. Houses up to 16Ah battery backup. **Note:** For flush mount applications, use external antennae (see SLE-ANTEXT75..., below)

WI2492LF - Installation Manual for FireLink® FLX2-32 Series FACP

In addition to the models listed above, the following accessories are available and permitted by UL:

SLE-WIFI-MODULE - Allows your Napco StarLink™ device to connect to the Internet by means of a wireless (Wi-Fi) link, eliminating a wired Ethernet cable connection. **Note:** 7AH battery required when using the **SLE-WIFI-MODULE**. For more information, see WI2191.

SLE-DLCBL - Download Cable, 6 feet

SLE-ANTEXT30 - Extended Remote Antenna Kit for use with cellular fire communicators, suitable for outdoor or indoor applications. Includes SLE-ANT Antenna, stainless steel coated cable clamps, stainless steel #10 screws and washers, 30' LMR 300 Coax Type N male to SMA male terminated cable, one (1) SMA female to TNC male adapter for use with competitive communicators. Also includes SLE-ANTEXT-ISO Commercial Fire Ground Fault Isolation Plate.

SLE-ANTEXT50 - Extended antenna kit with 50 feet of LMR 300 cable

SLE-ANTEXT75 - Extended antenna kit with 75 feet of LMR 400 cable

SLE-ANTEXT100 - Extended antenna kit with 100 feet of LMR 400 cable

All above **SLE-ANTEXT** models are optional extended anten-

nas with new pro-grade conical shape. (Any suitable external cellular antenna is permitted by UL; always follow the manufacturer's installation instructions).

GEM-Tamperkit - Tamper switches and screws to protect metal housing.

Conventional Fire System Peripherals

GEMC-FK1 - LCD Fire Red Annunciator (Menu-driven operation, functionality for Reset, Acknowledge, Silence (with disable).

GEMC-EZM8 - 8-point Expansion Module

FWC-CNV-PULL - Conventional Single Action Pull Station, with Hex Reset

FWC-CNV-PULLK - Conventional Single Action Pull Station, with Key Reset

FWC-CNV-PULL2 - Conventional Dual Action Pull Station, with Hex Reset

FWC-CNV-PULL2K - Conventional Dual Action Pull Station, with Key Reset

Commercial Wireless Peripherals

GEMC-WL-SMK - Gemini Commercial Wireless Smoke, Photoelectric (complete).

GEMC-WL-HEAT - Gemini Commercial Wireless Heat, 135° F

GEMC-WL-WD2 - Gemini Commercial Wireless Input Module converts any UL listed device into a UL wireless device (ex., pull stations or sprinkler supervisories).

GEMC-WL-SMK-2 - Gemini Commercial Wireless Smoke, Photoelectric (complete). UL 864 10th Ed.

GEMC-WL-HEAT-2 - Gemini Commercial Wireless Heat, 135° F. UL 864 10th Ed.

GEMC-WL-WD2-2 - Gemini Commercial Wireless Input Module converts any UL listed device into a UL wireless device (ex., pull stations or sprinkler supervisories). UL 864 10th Ed.

GEMC-REVC - Gemini Commercial Wireless 255 point RF Receiver (up to 4 per system, max.)

GEMC-WL-CO - Gemini Commercial Wireless Carbon Monoxide Detector. UL 864 10th Ed.

Addressable Peripherals

Note: Model series prefixed with "FWC-FSLC-" followed by suffixes as noted below are all Certified by Hochiki America to UL 864 9th edition:

GEMC-FW-SLC - Addressable SLC Fire Module, supports up to 128 addressable SLC fire devices, below. Up to 2 connect to Panel.

FWC-FSLC-SMK - Addressable Analog SLC Smoke, photoelectric, head

FWC-FSLC-HEAT - Addressable Analog SLC Heat, 135 - 150°F, head

FWC-FSLC-DUCT - Addressable SLC Duct smoke detector, photoelectric (Requires use of GEMC-24VR Voltage Regulator) includes 2 onboard relays that follow state of detector.

FWC-FSLC-DUCTRA - Remote Indicator Plate with LED indicator & key reset.

FWC-FSLC-EZM2 - Addressable SLC 2-zone conventional expansion module. Uses one address on SLC loop, but yields 2 independent contact monitoring circuits, for pull stations, water flow and other dry contact alarm initiating devices.

FWC-FSLC-EZM1 - Addressable SLC 1-input conventional module, similar to usage above.

FWC-FSLC-CZM - Addressable SLC Conventional Zone module, for monitoring of dry contacts, i.e., pull stations and conv. smokes (Requires use of GEMC-24VR Voltage Regulator) Creates a 24V 2-wire fire zone on the SLC loop, selectable Class A or B zone wiring.

FWC-FSLC-RM2 - Addressable SLC 2-output module (requires 2 SLC addresses)

FWC-FSLC-ISO - Addressable SLC Short Circuit Module (Optional: For special applications, meets Class A, Style 7 loop requirements)

FWC-FSLC-SOM1 - Addressable SLC Fire supervised output module. Application examples: elevator recall, HVAC shutdown, additional NAC output w/ power supply (Requires use of GEMC-24VR Voltage Regulator)

FWC-FSLC-PULL - Addressable SLC Fire Pull Station, standard hex-key reset.

FWC-FSLC-PULLK - Addressable SLC Fire Pull Station, with key reset.

FWC-FSLC-PULL2 - Dual action, pull station with hex-key reset.

FWC-FSLC-PULL2K - Dual action pull station, with key reset.

FWC-FSLC-PROG2 - Tool for address-programming SLC devices

FWC-FSLC-SMK6B - Smoke/Heat 6" Base, required for FWC-FSLC-SMK and -HEAT devices, above

THE FOLLOWING STATEMENT IS REQUIRED BY THE FCC.

This equipment generates and uses radio-frequency energy and, if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class-B computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference in a residential installation. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or

more of the following measures: reorient the receiving antenna; relocate the computer with respect to the receiver; move the computer away from the receiver; plug the computer into a different outlet so that computer and receiver are on different branch circuits.

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the Federal Communications Commission helpful: "How to Identify and Resolve Radio-TV Interference Problems". This booklet is available from the U.S. Government Printing Office, Washington, DC 20402; Stock No. 004-000-00345-4.



NAPCO LIMITED WARRANTY

NAPCO SECURITY TECHNOLOGIES, INC. (NAPCO) warrants its products to be free from manufacturing defects in materials and workmanship for *thirty-six months* following the date of manufacture. NAPCO will, within said period, at its option, repair or replace any product failing to operate correctly without charge to the original purchaser or user.

This warranty shall not apply to any equipment, or any part thereof, which has been repaired by others, improperly installed, improperly used, abused, altered, damaged, subjected to acts of God, or on which any serial numbers have been altered, defaced or removed. Seller will not be responsible for any dismantling or reinstallation charges.

THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. THERE IS NO EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY OR A WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. ADDITIONALLY, THIS WARRANTY IS IN LIEU OF ALL OTHER OBLIGATIONS OR LIABILITIES ON THE PART OF NAPCO.

Any action for breach of warranty, including but not limited to any implied warranty of merchantability, must be brought within the six months following the end of the warranty period. IN NO CASE SHALL NAPCO BE LIABLE TO ANYONE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES FOR BREACH OF THIS OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, EVEN IF THE LOSS OR DAMAGE IS CAUSED BY THE SELLER'S OWN NEGLIGENCE OR FAULT.

In case of defect, contact the security professional who installed and maintains your security system. In order to exercise the warranty, the product must be returned by the security professional, shipping costs prepaid and insured to NAPCO. After repair or replacement, NAPCO assumes the cost of returning products under warranty. NAPCO shall have no obligation under this warranty, or otherwise, if the product has been repaired by others, improperly installed, improperly used, abused, altered, damaged, subjected to accident, nuisance, flood, fire or acts of God, or on which any serial numbers have been altered, defaced or removed. NAPCO will not be responsible for any dismantling, reassembly or reinstallation charges.

This warranty contains the entire warranty. It is the sole warranty and any prior agreements or representations, whether oral or written, are either merged herein or are expressly cancelled. NAPCO neither assumes, nor authorizes any other person

purporting to act on its behalf to modify, to change, or to assume for it, any other warranty or liability concerning its products.

In no event shall NAPCO be liable for an amount in excess of NAPCO's original selling price of the product, for any loss or damage, whether direct, indirect, incidental, consequential, or otherwise arising out of any failure of the product. Seller's warranty, as hereinabove set forth, shall not be enlarged, diminished or affected by and no obligation or liability shall arise or grow out of Seller's rendering of technical advice or service in connection with Buyer's order of the goods furnished hereunder.

NAPCO RECOMMENDS THAT THE ENTIRE SYSTEM BE COMPLETELY TESTED WEEKLY.

Warning: Despite frequent testing, and due to, but not limited to, any or all of the following; criminal tampering, electrical or communications disruption, it is possible for the system to fail to perform as expected. NAPCO does not represent that the product/system may not be compromised or circumvented; or that the product or system will prevent any personal injury or property loss by burglary, robbery, fire or otherwise; nor that the product or system will in all cases provide adequate warning or protection. A properly installed and maintained alarm may only reduce risk of burglary, robbery, fire or otherwise but it is not insurance or a guarantee that these events will not occur. CONSEQUENTLY, SELLER SHALL HAVE NO LIABILITY FOR ANY PERSONAL INJURY, PROPERTY DAMAGE, OR OTHER LOSS BASED ON A CLAIM THE PRODUCT FAILED TO GIVE WARNING. Therefore, the installer should in turn advise the consumer to take any and all precautions for his or her safety including, but not limited to, fleeing the premises and calling police or fire department, in order to mitigate the possibilities of harm and/or damage.

NAPCO is not an insurer of either the property or safety of the user's family or employees, and limits its liability for any loss or damage including incidental or consequential damages to NAPCO's original selling price of the product regardless of the cause of such loss or damage.

Some states do not allow limitations on how long an implied warranty lasts or do not allow the exclusion or limitation of incidental or consequential damages, or differentiate in their treatment of limitations of liability for ordinary or gross negligence, so the above limitations or exclusions may not apply to you. This Warranty gives you specific legal rights and you may also have other rights which vary from state to state.