

# N16e/x Fire Alarm Control Panel

## EFFICIENT, SCALABLE, CONNECTED

### General

The NOTIFIER INSPIRE™ Series Fire Alarm Control Panels (FACPs) bring the latest technology to life safety. Fire emergency detection and evacuation are extremely critical to life safety. With the N16e and N16x panels, NOTIFIER INSPIRE Series offers a scalable platform to meet any size application.

NOTIFIER INSPIRE Series FACPs feature an intuitive 10" color touchscreen display. This display is color coded with system and status information. Users are presented with vital information that is easy to read and navigate.

Offered in a standard preconfigured enclosure, the N16e comes with one Signaling Line Module to support 318 intelligent addressable devices. Up to two additional Signaling Line Modules (SLM-318) can be added, expanding capacity to 954 intelligent addressable devices on three Signaling Line Circuit (SLC) loops. The panel ships with power supply PMB-AUX to support four NACs and two auxiliary outputs. Panels can be configured with just a few devices for small building applications or networked with many devices to protect a large campus or a high-rise office block. Simply add additional peripheral equipment to suit the application.

The N16x features a modular design. Order CPU-N16LND, CPU-N16LD, or CPU-16-RTO to meet project requirements. Panels can be configured for stand-alone or network systems. The N16x can support one to 10 SLM-318 modules, for a capacity of up to 3,180 intelligent addressable devices on 10 SLC loops. Optional enclosure sizes are available to support additional peripheral equipment. A host of other options are available, including single or multichannel integrated voice; firefighter's telephone and many additional options.

The NOTIFIER INSPIRE Series integrates with the Connected Life Safety Services (CLSS) platform through the CLSS Gateway, providing connectivity to central station, cloud, and mobile applications. (See HON-62034.) This cloud-based functionality provides reliable protection and remote monitoring of the system, reduced manual data entry, and reporting. Use CLSS to access licensable panel features, VeriFire® Tools, workstation licenses, and more.

### Features

- 10" high definition touchscreen display with customizable buttons
- 6.0 A power supply with customizable outputs (see DN-62116)
  - Two auxiliary Class A/B outputs configurable for resettable or non-resettable operation
  - Four Class A/B power outputs that can be configured as Class A/B Notification Appliance Circuits (NACs), power circuit, door holder circuit, or Universal Zone Coding circuit (UZC licensable option)
  - NACs support selectable System Sensor, Wheelock, and Gentex strobe synchronization
  - NACs support up to 3 patterns of output to allow dynamic signaling based on system events: Temp-3 (Fire), Temp-4 (CO), two-stage evacuation, selective silence
- Easy expansion of isolated intelligent Signaling Line Circuit (SLC) capacity
  - One expandable to three on N16e (three cards in the cabinet)
  - One expandable to ten on N16x
- Easy expansion of N16x power capacity (one expandable to three PMB-AUX power supplies)



**N16e**

- Wireless fire protection using SWIFT® Smart Wireless Integrated Fire Technology (see DN-60820)
- Up to 159 detectors and 159 modules per SLC; 318 devices per loop/3,180 per FACP or network node
  - Self-Test detector technology
  - Detectors can be any mix of photo, thermal, or multi-sensor; wireless detectors are available for use with the SWIFT Wireless Gateway (FWSG)
  - Modules include addressable pull stations, normally open contact devices, two-wire smoke detectors, notification, or relay; wireless modules are available for use with the FWSG
- Network options:
  - High-speed network for up to 200 nodes (NFS2-3030, NFS2-640, NFS-320(C), NFS-320SYS, NCD, NCA-2, DVC-EM, ONYXWorks®)
  - Standard network for up to 103 nodes (NFS2-3030, NFS2-640, NFS-320(C), NFS-320SYS, NCD, NCA-2, DVC-EM, ONYXWorks). Up to 54 nodes when DVC-EM is used in network paging
- Network Display Mode (licenseable feature) allows the panel to act as a network display node, making the NCD optional
- Emergency voice options available (integrated digital voice or sidecar audio)
- Weekly Occupancy Schedules allow changing sensitivity by time of day and day of week
- History Buffer (10,000 events, 3000 displayed)
- Advanced history filters allow sorting by event, time, date, or address
- Alarm Verification selection per point, with automatic counter
- Color coded icon-based event notification
- Event filtering to quickly view event groups
- Optional cloud connectivity for remote off site monitoring through CLSS (see HON-62034)
- Monitor multiple buildings through one off-campus central station, and report through the CLSS Gateway
- Silence Inhibit and Auto Silence timer options

- Field programmable with VeriFire Tools
- Optional remote programming through CLSS
- Non-alarm points for lower priority functions
- Up to 2000 powerful Boolean logic equations
- Supplemental EIA-232 printer port
- Internal and external connectors for AIO Bus devices

#### **LICENSABLE PANEL FEATURES THROUGH CLSS**

- Expanded general zones (250 zones included, expandable up to 2000 zones in increments of 250)
- Expanded logic zones (250 zones included, expandable up to 2000 zones in increments of 250)
- Universal Zone Coding (UZX)
- Network display mode enables N16 to emulate the NCD's full network display capabilities
- Expanded custom action buttons (8 buttons included, expandable up to 32 buttons, in increments of 8)
- CLIP mode

#### **SWIFT WIRELESS**

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

#### **VOICE AND TELEPHONE FEATURES**

- Up to eight channels of digital audio
- 35 watt, 50 watt, 75 watt, and 100/125 watt digital amplifiers (DAA2/DAX series and DS series)
- Solid state message generation
- Hard-wired voice control module options
- Firefighter telephone option
- 30- to 120-watt analog amplifiers (AA Series)
- Backup tone generator and amplifier option

#### **FLASHSCAN® INTELLIGENT FEATURES**

- Polls up to 318 devices on each loop in less than two seconds
- Activates up to 159 outputs in less than five seconds
- Fully digital, high-precision protocol (U.S. Patent 5,539,389)
- Manual sensitivity adjustment — up to nine levels
- Pre-alarm intelligent sensing — up to nine levels
- Sensitivity levels:
  - **Photo:** 0.5 to 2.35%/foot obscuration
  - **High-Sensitivity Photoelectric (VIEW®):** Open Air Protection (0.5% - 2.0%/ft. obscuration), Special Applications (0.02%-0.5%/ft. obscuration)
  - **Multi-Criteria Detector:** Open Air Protection (2.52-3.89%/ft. obscuration), Special Applications (1.13-2.52%/ft. obscuration)
  - **Acclimate® Plus:** 0.5 to 4.0%/foot obscuration
- Drift compensation (U.S. Patent 5,764,142)
- Multi-detector algorithm involves nearby detectors in alarm decision (U.S. Patent 5,627,515)
- Automatic detector sensitivity testing (NFPA-72 compliant)
- Maintenance alert (two levels)
- Self-optimizing pre-alarm
- Programmable activation of sounder/relay bases during alarm or pre-alarm

#### **FSV-951 SERIES VIEW® (VERY INTELLIGENT EARLY WARNING) HIGH-SENSITIVITY SMOKE DETECTOR**

- Advanced intelligent sensing algorithms differentiate between smoke and non-smoke signals
- Addressable operation pinpoints the fire location

- Ivory models (-IV) support CLIP mode as well as FlashScan
- Retrofit models (-R) available, backwards compatible for use with older panels

#### **FCO-951(A)-IV ADVANCED MULTI-CRITERIA FIRE/CO DETECTOR**

- Detects all four major elements of a fire (smoke, heat, CO, and flame)
- 135°F (57.2°C) fixed-temperature heat detector
- Transmits an alarm signal due to heat
- Separate signal for life-safety CO detection
- 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

#### **FPTI-951 INTELLIGENT MULTI-CRITERIA DETECTOR**

- Combined Photoelectric Thermal and Infrared Sensor
- UL 268 7th Edition and UL 521 Listed
- Microprocessor-based technology; combination photo, thermal, and infrared technology

#### **FPC-951(A) PHOTOELECTRIC/CO SENSOR**

- Combined photoelectric and carbon monoxide sensor

#### **FSCO-951(A) INTELLIGENT CO SENSOR**

- Carbon monoxide sensor

#### **FS-OSI-RI(A) ADDRESSABLE INTELLIGENT SINGLE-ENDED BEAM SMOKE DETECTOR**

- Intelligent addressable reflector-type linear optical beam smoke detector
- Fast, easy, and intuitive beam alignment indicated by directional LED arrows
- Long range coverage of 16-328 ft (5-100 m) is standard; no separate long-range kit required

#### **INTELLIGENT VESDA® DETECTORS**

- Intelligent aspiration smoke detectors connect directly to the panel's SLC loop:
  - VEA-040-A00-NTF, VEA-040-A10-NTF
  - VEP-A00-P-NTF, VEP-A10-P-NTF, VEP-A00-1P-NTF
  - VEU-A00-NTF, VEU-A10-NTF
- Models offer LED display, LCD display, or both
- Coverage options for spaces up to 69,965 square feet

#### **SELF-TEST SERIES DETECTORS**

- Intelligent addressable detectors able to perform maintenance tests of smoke and heat detection without using canned smoke or heat guns
  - FSP-951-SELFT
  - FSP-951T-SELFT
  - FST-951-SELFT
- First self-testing detectors approved by UL
- Simultaneously test multiple loops and panels for photo, heat, and photo/heat detection

### **FlashScan® Exclusive World-Leading Detector Protocol**

At the heart of the NOTIFIER INSPIRE™ N16e/x panel series is a set of detection devices and device protocol — FlashScan (U.S. Patent 5,539,389). FlashScan is an all-digital protocol that gives superior precision and high noise immunity.

This protocol enables quick identification of an active input device, as well as activation of many output devices in a fraction of the time required by competitive protocols. The high speed also gives N16

the largest device per loop capacity in the industry – 318 points – yet every input and output device is sampled in less than two seconds. The microprocessor-based FlashScan detectors have bicolor LEDs that can be coded to provide diagnostic information.

## NOTIFIER INSPIRE Intelligent Sensing

N16e/x has a set of software algorithms that provide industry-leading smoke detection capability. These complex algorithms process many calculations on each reading of each detector, and are made possible by the high-speed microcomputer used by the N16e/x.

**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 NOTIFIER INSPIRE 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.

## Field Programming Options

**Autoprogram** is a timesaving feature. The FACP “learns” what devices are physically connected and automatically loads 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** 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 N16 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 (Version 11.2 and higher).

## Product Line Information

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## CONFIGURATION GUIDELINES

Stand-alone and network systems require a main display. The main display must be either NCD, ONYXWorks or one panel in the network with Network Display mode enabled.

## MAIN SYSTEM COMPONENTS

**CPU-N16LD:** N16x with display. Intelligent fire alarm with one SLC loop, 10" touchscreen display, 4 NACs, and power supply; chassis mounted for use in a CAB-5 Series cabinet.

**CPU-N16LND:** N16x without display, for use as network node. Intelligent fire alarm with one SLC loop, 4 NACs, and power supply; chassis mounted for use in a CAB-5 Series cabinet.

**CPU-16-RTO:** N16x with display for use in retrofit cabinets. Intelligent fire alarm with one SLC loop, 10" touchscreen display, 4 NACs, and power supply; chassis mounted for use in a CAB-4 Series cabinet.

**N16E:** Intelligent fire alarm panel with one SLC loop, 10" touchscreen display, 4 NACs, and power supply in a black enclosure.

**N16E-R:** Intelligent fire alarm panel with one SLC loop, 10" touchscreen display, 4 NACs, and power supply in a red enclosure.

**SLM-318:** Signaling Line Module provides a Signaling Line Circuit of 159 addressable points. Add SLM-318 units to expand SLC capability. *See DN-62115.*

## NETWORKING OPTIONS

**NCD:** Network Control Display. On network systems (two or more networked fire panel nodes), one network display is required for every system (either NCD, ONYXWorks, or N16 with Network Display mode enabled). On network systems, the NCD connects (and requires) a standard Network Communication module or High-Speed Network Communication Module. *See DN-60974.*

**NCM-W, NCM-F:** Standard Network Communications Modules. Wire and multi-mode fiber versions available. *See DN-6861.*

**HS-NCM-W(-2), HS-NCM-MF, HS-NCM-SF, HS-NCM-WMF(-2), HS-NCM-WSF(-2), HS-NCM-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 DN-60454.*

**RPT-W, RPT-F, RPT-WF:** Standard-network 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 DN-6971.*

**ONYXWorks:** UL-listed graphics PC workstation, ONYXWorks GUI software, and computer hardware. *See DN-7048 for specific part numbers.*

**NFN-GW-EM-3:** NFN Gateway, embedded. (Replaces NFN-GW-EM.) *See DN-60499.*

**CAP-GW:** Common Alerting Protocol Gateway. *See DN-60756.*

**VESDA-HLI-GW:** VESDAnet high-level interface gateway. *See DN-60753.*

**LEDSIGN-GW:** UL-listed sign gateway. Interfaces with classic and high-speed NOTI•FIRE•NET networks through the NFN Gateway. See DN-60679.

**OAX2-24V:** UL-listed LED sign, used with LEDSIGN-GW. See DN-60679.

### AUXILIARY POWER SUPPLIES AND BATTERIES

**PMB-AUX:** Auxiliary power supply, 6 amps, universal AC input, 4 NACs and 2 Auxiliary outputs, chassis-mounted for use in a CAB-5 Series cabinet. Charges 7-100AH batteries. See DN-62116.

**PMB-AUX-RTO:** Auxiliary power supply, 6 amps, universal AC input, 4 NACs and 2 Auxiliary outputs, chassis-mounted for use in a CAB-4 Series cabinet. Charges 7-100AH batteries. See DN-62116.

**PSE-6/10:** PowerStrike™ Remote 6A/10A power supply with battery charger. See DN-61092.

**BAT Series:** Sealed lead-acid batteries listed for fire-protective service. (Required.) See DN-6933.

### AUDIO OPTIONS

**NOTE:** See “Enclosures, Chassis, And Dress Plates” on page 5 for mounting hardware.

**DVC-EM:** Digital Voice Command, digital audio processor with message storage for up to 32 minutes of standard quality (4 minutes at high quality) digital audio. See DN-7045.

**DVC-RPU:** Digital Voice Command Remote Paging Unit for use with DVC-EM. Includes the keypad/display. See DN-60726.

**DS-DB:** Digital Series Distribution Board, provides bulk amplification capabilities to the 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 DN-60565.

**DVC-KD:** DVC-EM keypad for local annunciation and controls; status LEDs and 24 user-programmable buttons. See DN-7045.

**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 DN-60663.

**DS-RFM, DS-FM, DS-SFM:** Fiber conversion modules for DVC-EM, DS-DB distribution board, and DAA2/DAX Series amplifiers. See DN-60633.

**DAA2-5025(E):** 50W, 25 Vrms Digital Audio Amplifier assembly with power supply; includes chassis. See DN-60556.

**DAA2-5070(E):** 50W, 70.7 Vrms Digital Audio Amplifier assembly with power supply; includes chassis. See DN-60556.

**DAA2-7525(E):** 75W, 25 Vrms digital audio amplifier assembly with power supply; includes chassis. See DN-60556.

**DAX-3525(E):** 35W, 25 Vrms Digital Audio Amplifier assembly with power supply, includes chassis. See DN-60561.

**DAX-3570(E):** 35W, 70.7 Vrms Digital Audio Amplifier assembly with power supply, includes chassis. See DN-60561.

**DAX-5025(E):** 50W, 25 Vrms Digital Audio Amplifier assembly with power supply, includes chassis. See DN-60561.

**DAX-5070(E):** 50W, 70.7 Vrms Digital Audio Amplifier assembly with power supply, includes chassis. See DN-60561.

**TELH-1:** Firefighter’s Telephone Handset for use with the DVC-EM when mounted in the CA-2 chassis. See DN-7045.

**CMIC-1:** Microphone used with DVC/DVC-EM. Included with CA-2 chassis assembly. See DN-7045.

**RM-1/RM-1SA:** Remote microphone assemblies, mount on ADP-4 (RM-1) dress panel or CAB-RM/-RMR (RM-1SA) stand-alone cabinets. See DN-6728.

**DAA Series Digital Audio Amplifiers:** Legacy DAA Series amplifiers are compatible with DVC systems running SR4.0. For specific information on DAA-50 series amplifiers, refer to DN-7046. For information on DAA-7525 Series, refer to DN-60257.

**DAX-3525(E):** 35W, 25 Vrms Digital Audio Amplifier assembly with power supply, includes chassis. See DN-60561.

**DAX-3570(E):** 35W, 70.7 Vrms Digital Audio Amplifier assembly with power supply, includes chassis. See DN-60561.

**DAX-5025(E):** 50W, 25 Vrms Digital Audio Amplifier assembly with power supply, includes chassis. See DN-60561.

**DAX-5070(E):** 50W, 70.7 Vrms Digital Audio Amplifier assembly with power supply, includes chassis. See DN-60561.

### COMPATIBLE DEVICES, EIA-232 PORTS

**PRN-7:** 80-column printer. See DN-60897

**VS4095/5:** Printer, 40-column, 24 V. Order from Keltron, Inc. See DN-3260.

### COMPATIBLE DEVICES, AIO BUS

**ACM-30:** Fully-customizable annunciator; Independently-configured buttons with up to 60 points of annunciation. LEDs can be programmed to activate in red, green, yellow, white, amber, blue, cyan or purple. Up to 40 annunciators per FACP. See DN-62114.

### COMPATIBLE INTELLIGENT DEVICES

**FSP-951-SELFT:** White, low-profile intelligent self-testing photoelectric sensor, FlashScan only. See DN-62046.

**FSP-951T-SELFT:** White, same as FSP-951 but includes a built-in 135°F (57°C) fixed-temperature thermal device, FlashScan only. See DN-62046.

**FST-951-SELFT:** White, low-profile intelligent self-testing 135°F fixed thermal sensor, FlashScan only. See DN-62046

**FCO-951-IV** FlashScan, Addressable intelligent multi-criteria smoke sensors, photo, carbon monoxide, fixed temperature heat detector, and infra-red (IR). See DN-61097.

**FPC-951.** FlashScan, Combined photoelectric and carbon monoxide sensor. See DN-62023.

**FWSG Wireless SWIFT Gateway:** Addressable gateway supports wireless SLC devices. See DN-60820

**FSCO-951.** FlashScan, Addressable carbon monoxide sensor. See DN-62018.

**FPTI-951, FPTI-951-IV:** Addressable intelligent multi-criteria photoelectric, thermal, and IR sensors. See DN-62004.

**FS-OSI-RI:** Addressable intelligent single-ended beam smoke detector. See DN-61042.

**FSP-951:** White, low-profile intelligent photoelectric sensor, FlashScan only. See DN-60977.

**FSP-951-IV:** Ivory, low-profile intelligent photoelectric sensor.

**FSP-951T:** White, same as FSP-951 but includes a built-in 135°F (57°C) fixed-temperature thermal device. FlashScan only. See DN-60977.

**FSP-951T-IV:** Ivory, same as FSP-951T but includes a built-in 135°F (57°C) fixed-temperature thermal device.

**FSP-951R:** White, low-profile intelligent photoelectric sensor, remote test capable. For use with DNR/DNRW. FlashScan only. See DN-60977.

**FSP-951R-IV:** Ivory, low-profile intelligent photoelectric sensor, remote test capable. FlashScan only.

**FST-951:** White, low-profile intelligent 135°F fixed thermal sensor, FlashScan only. Must be mounted to one of the bases listed below. See DN-60975.

**FST-951-IV:** Ivory, low-profile intelligent 135°F fixed thermal sensor, FlashScan and CLIP. Must be mounted to one of the bases listed below.

**FST-951R:** White, low-profile intelligent rate-of-rise thermal sensor, FlashScan only. Must be mounted to one of the bases listed below.

**FSP-951R-IV:** Ivory, low-profile intelligent photoelectric sensor, remote test capable. FlashScan only.

**FST-951H:** White, low-profile intelligent 190°F fixed thermal sensor, FlashScan only. Must be mounted to one of the bases listed below.

**FST-951H-IV:** Ivory, low-profile intelligent 190°F thermal sensor, FlashScan and CLIP. Must be mounted to one of the bases listed below.

**FSV-951, FSV-951R:** White, intelligent high-sensitivity photoelectric smoke detector. *See DN-61053.*

**FSV-951-IV, FSV-951R-IV:** Ivory, intelligent high-sensitivity photoelectric smoke detector.

**VEP-A00-P-NTF:** Intelligent aspiration smoke detector with LED display, 4 pipes, covers up to 21,520 square feet. *See DN-61029.*

**VEP-A10-P-NTF:** Intelligent aspiration smoke detector with LED and LCD display, 4 pipes, covers up to 21,520 square feet. *See DN-61029.*

**VEP-A00-1P-NTF:** Intelligent aspiration smoke detector with LED display, single pipe, covers up to 10,760 square feet. *See DN-61029.*

**VEU-A00-NTF:** Intelligent aspiration smoke detector with LED display, 4 pipes, covers up to 69,965 square feet. *See DN-61034.*

**VEU-A10-NTF:** Intelligent aspiration smoke detector with LED and LCD display, 4 pipes, covers up to 69,965 square feet. *See DN-61034.*

**VEA-040-A00-NTF:** Intelligent aspiration with LED display, 40 point-addressable detection points. Covers 36,000 square feet. *See DN-61036.*

**VEA-040-A10-NTF:** Intelligent aspiration with LED and LCD display, 40 point-addressable detection points. Covers 36,000 square feet. *See DN-61036.*

**DNR:** InnovairFlex low-flow non-relay duct-detector housing. (Order FSP-951R separately.) *See DN-60429.*

**DNRW:** Same as above with NEMA-4 rating, watertight. *See DN-60429.*

**B224RB-WH:** White, low-profile relay base. *See DN-60054.*

**B224RB-IV:** Ivory, plug-in System Sensor relay base.

**B224BI-WH:** White, isolator base for low-profile detectors. *See DN-60054.*

**B224BI-IV:** Ivory isolator detector base.

**B300-6:** White, standard flanged low-profile mounting base. (For 10-pack order B300-6-BP.)

**B300-6-IV:** Ivory, standard flanged low-profile mounting base.

**B501-WHITE:** European-style, 4" (10.16 cm) base. (For 10-pack order B501-WHITE-BP.) *See DN-60054.*

**B501-BL:** Black, 4" standard European flangeless mounting base.

**B501-IV:** Ivory color, 4" standard European flangeless mounting base.

**B200S-WH:** White, intelligent programmable sounder base, capable of producing a variety of tone patterns including ANSI Temporal 3. Compatible with synchronization protocol. *See DN-60054.*

**B200S-IV:** Ivory intelligent, programmable sounder base.

**B200S-LF-WH:** White, low-frequency version of B200S. *See DN-60054.*

**B200S-LF-IV:** Ivory, low-frequency version of B200S.

**B200SR-WH:** White intelligent programmable sounder base, Temporal 3 or Continuous tone. For retrofit installations replacing B501BH series bases. *See DN-60054.*

**B200SR-IV:** Ivory intelligent programmable sounder base, Temporal 3 or Continuous tone. For retrofit installations replacing B501BH series bases.

**B200SR-LF-WH:** White, low-frequency version of B200SR. *See DN-60054.*

**B200SR-LF-IV:** Ivory, low-frequency version of B200SR.

**FMM-1:** FlashScan monitor module. *See DN-6720.*

**FDM-1:** FlashScan dual monitor module. *See DN-6720.*

**FZM-1:** FlashScan two-wire detector monitor module. *See DN-6720.*

**FMM-101:** FlashScan miniature monitor module. *See DN-6720.*

**FTM-1:** 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 DN-6989.*

**FCM-1:** FlashScan control module. *See DN-6724.*

**FCM-1-REL:** FlashScan releasing control module. *See DN-60390.*

**FRM-1:** FlashScan relay module. *See DN-6724.*

**FDRM-1:** FlashScan dual monitor/dual relay module. *See DN-60709.*

**NBG-12LX:** Manual pull station, addressable. *See DN-6726.*

**ISO-X:** Isolator module. *See DN-2243.*

**ISO-6:** Six fault isolator module. *See DN-60844.*

**XP6-C:** FlashScan six-circuit supervised control module. *See DN-6924.*

**XP6-MA:** FlashScan six-zone interface module; connects intelligent alarm system to two-wire conventional detection zone. *See DN-6925.*

**XP6-R:** FlashScan six-relay (Form-C) control module. *See DN-6926.*

**XP10-M:** FlashScan ten-input monitor module. *See DN-6923.*

## ENCLOSURES, CHASSIS, AND DRESS PLATES

**CAB-5 Series Enclosure:** CPU-N16LD and CPU-N16LND mount in a standard CAB-5 Series enclosure (available in 5 sizes, "A" through "E"). Backbox and door ordered separately; requires BP-5 battery plate. *See DN-62113.*

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

**DP-T2A:** Dress panel for CAB-5 Series, mounts 10" display and two ACM-30 annunciators.

**DP-T2A-CB4:** Dress panel for CAB-4 Series, mounts 10" display and two ACM-30 annunciators.

**DP-4A:** Dress panel for CAB-5 Series, mounts four ACM-30 annunciators.

**DP-BLN:** Blank dress panel. Provides dead-front panel for unused tiers in a CAB-5 Series enclosure.

**BP-5:** Battery plate, required.

**NFS-LBB:** Battery Box. The NFS-LBB is used to mount up to two 55 AH batteries. Dimensions: Box: 24" (610 mm) wide x 14" (356 mm) high x 7.75" (197 mm) deep. Door: 24.125" (613 mm) wide x 14.25" (362 mm) high; door adds 0.0625" (approx. 1.6 mm) to depth.

**CHS-CGW:** Chassis for mounting the CGW-MBB in a CAB-4 or CAB-5 Series enclosure.

**CHS-ADP:** Adapter plate for mounting a CAB-4 chassis in a CAB-5 Series enclosure.

## BACKBOXES

**BB-100:** Backbox for batteries and power supplies. The BB-100 mounts up to two 100 AH batteries and power supply, if needed. 30" (76.20 cm) wide x 25" (63.50 cm) high x 7.5" (19.05 cm) deep; depth includes door.

**BB-200:** Backbox for batteries and power supplies. Holds up to four 100 AH batteries (200 AH capacity) and power supply. 30" (76.20 cm) wide x 36" (91.44 cm) high x 7.5" (19.05 cm) deep; depth includes door.

**ABB-1:** Backbox for ACM-30 annunciator, 1 position.

**ABB-2:** Backbox for ACM-30 annunciator, 2 position.

**NBB-2:** Annunciator backbox, 2 position.

## **CLSS GATEWAY AND LICENSEABLE FEATURES**

**CGW-MBB:** CLSS Gateway for Internet/cloud-based communication between the FACP and peripheral devices. *See HON-62034.*

**HON-CGW-MBB:** CLSS Gateway, pre-installed in a cabinet. *See HON-62034.*

**Licenseable features:** Individually purchased and downloaded to a specific panel.

- **N16-CAC:** Custom Action Button expansion. Adds 8 custom action buttons to an N16 panel (maximum 32 buttons).
- **N16-CLIP:** Enables CLIP mode on an N16 panel.
- **N16-GZN:** General Zone expansion. Adds 250 general zones to an N16 panel (maximum 2000 zones).
- **N16-LGZ:** Logic Zone expansion. Adds 250 logic zones to an N16 panel (maximum 2000 zones).
- **N16-NWD:** Enables Network Display Mode on an N16 panel to emulate NCD's network display capabilities.
- **N16-UZC:** Universal Zone Coding, enables UZC for an N16 panel.

**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 CAPACITY**

- Intelligent Signaling Line Circuits
  - N16e ..... 1 expandable to 3
  - N16x ..... 1 expandable to 10
- Intelligent detectors ..... 159 per loop
- Addressable monitor/control modules ..... 159 per loop
- Programmable software zones ..... over 2000
- AIO Annunciators per N16 ..... 40
- Network nodes ..... up to 200 per network

**ELECTRICAL SPECIFICATIONS**

**Primary Input Power:**

**PMB-AUX(-RTO):** 120VAC 50/60 Hz 2.5A, 240VAC 50/60 Hz, 1.25A

**24VDC aux outputs:** Power-limited (Class 2) 24V @ 1.5A each, Special Applications Aux Power, Aux 1 Class A/B, Aux 2 Class B only.

**Current draw (Standby/Alarm):**

- TB1 SLC Connection 24VDC
- Alarm 210mA
- Class B/A/X
- Standby 159mA
- Power Limited
- Supervised
- 50 ohms Maximum

**Battery charger range:** 7 AH – 100 AH. Use separate cabinet for batteries over 26 AH.

**Charging current:** 1A, 2A, and 4.25A

**Float Rate:** 27.6 V.

**PHYSICAL SPECIFICATIONS**

**N16e Shipping Weight:** 35 lb

**N16e Backbox dimensions:** 20.31" H x 24.00" W x 5.5" D (51.6 cm H x 61 cm D x 14cm D)

**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.

**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 NOTIFIER for latest listing status.

- **UL Listed:** S635.

**STANDARDS**

The N16 Series complies with the following UL Standards and NFPA 72 Fire Alarm Systems requirements:

- **UL 864**, 10th edition (Fire).
- **UL 1076** (Burglary).
- **UL 2017** (General-Purpose Signaling Devices and Systems).
- **NFPA 72 Local** (Automatic, Manual, Waterflow, and Sprinkler Supervisory).
- **NFPA 72 Central Station** (Automatic, Manual, Waterflow, and Sprinkler Supervisory, requires CGW-MBB or HON-CGW-MBB.)
- **NFPA 72 Remote Station** (Automatic, Manual, Waterflow, and Sprinkler Supervisory) (requires UL 10th edition listed DACT).
- **NFPA 72 Proprietary** (Automatic, Manual, Waterflow, and Sprinkler Supervisory).
- **NFPA 72 Emergency Voice/Alarm** (requires DVC/DAA/DAA-2)
- **NFPA 72 PB** (Performance Based Technologies) (Requires CGW-MBB or HON-CGW-MBB).

**NOTE:** Install in accordance with the UL and NFPA standards specified in panel documentation.



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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