

INTELLIGENT FIRE ALARM CONTROL PANELS



FEATURES

- ✓ Shield User Interface w/Graphical LCD.
- ✓ Synchronized Audible and Visual NAC Circuits.
- ✓ Remote Diagnostic Capabilities.
- ✓ Peer-to-Peer Networking.
- ✓ Up to 504 Analog/Addressable Points.
- ✓ Automatic Detector Testing w/Maintenance Alert.
- ✓ Alarm Verification and PAS.
- ✓ Style 4, 6 & 7 SLC Operation (supports loop powered technology).
- ✓ User-Friendly Field Configuration Program.
- ✓ 5 to 10 Amps of System Power.
- ✓ Optional ipGateway for text and email status notification.
- ✓ Class A or B NAC Circuits.
- ✓ Network-Wide Audible and Visual Synchronization.
- ✓ Voltage Regulated NACs (compatible with most Listed NAC devices).
- ✓ “Auto-Learn/Loop Detection” Programming.

DESCRIPTION

Shield has combined the latest technology with many years of fire experience, to create the NEO Intelligent Fire Alarm Control Panels. The panels are highly flexible and ideally suited to meet the needs of virtually any commercial, industrial or institutional application. The NEO Intelligent Fire Alarm Control Panels are available in three standard models, the NX-FACP-1L, NX-FACP-2, and NX-FACP-4. Modular construction permits field configuration of a panel(s) to suit specific installation requirements.

Designed with installation and service engineers in mind, these intelligent panels are modularly packaged, using surface mount and dual flash microprocessor technology, with onboard real time clocks for ease of installation, troubleshooting, programming, and maintenance.

The NX-FACP-1L provides one Class B or Class A/X signaling line circuit, while the NX-FACP-2 provides two SLC circuits and the NX-FACP-4 provides four SLC circuits. Communications to field devices attached to the SLCs is via Shield, 100% digital protocol with advantages of being highly immune to noisy environments and will operate over non-shielded cable without causing interference problems with sensitive electronic equipment.

Each SLC supports up to 126 analog addressable devices (any combination of intelligent detectors, input and/ or output devices, including loop powered technology devices). In addition, our unique sub-addressing of various input and/or output devices permits expanding system capacities further.

The NX-FACP-1L and NX-FACP-2 also come with two filter, voltage regulated Notification Appliance Circuits (NACs), Class A or B rated 2 Amp @ 24 VDC. Due to exceptional regulation and high rating, the onboard NAC outputs provide compatibility with virtually any listed notification appliance. The NX-FACP-4 panel provides four fully filtered, voltage regulated Notification Appliance Circuits (NACs) rated 2 Amp @ 24 VDC. The NX-FACP-4 configuration can accommodate a total system capacity of 504 analog addressable point's standard, not counting sub-addressing capacity. Each NX-FACP-1L, NX-FACP-2 or NX-FACP-4 intelligent panel has resettable and non-resettable power outputs each rated .5 Amp @ 24 VDC, for connection to four-wire conventional smoke detectors and/or ancillary devices. In addition, each panel (NX-FACP-1L, NX-FACP-2, and NX-FACP-4) contains three, field programmable, Form “C” relay contacts rated 1 Amp @ 30 VDC, defaulted as a fail-safe trouble relay, alarm relay, and supervisory relay.

TECHNICAL DATA SHEET

Simplifying and reducing initial system set-up, each NEO Intelligent Fire Alarm Control Panel is equipped with an installer-friendly “Auto-Learn/Loop Detection” feature that permits the rapid recognition of all signaling line circuit devices .

This rapid recognition simplifies the assignment of critical life safety functions immediately. Assignments include intelligent detector type and operation criteria, addressable input device recognition as an alarm input, and addressable output control on a general alarm basis.

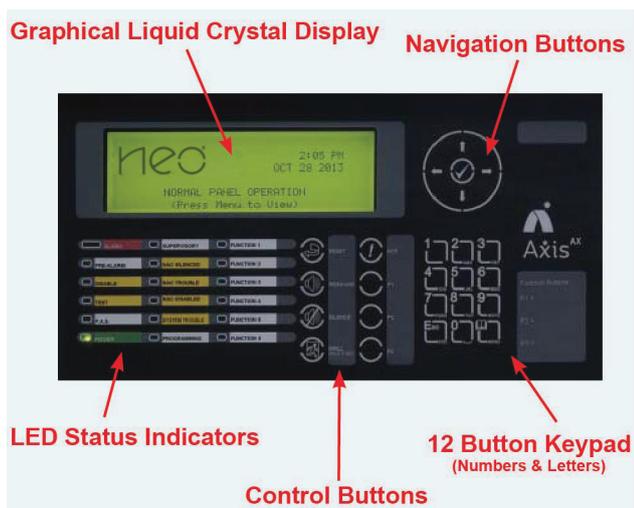
Designed with built-in powerful installation and customization tools, the NEO Intelligent Fire Alarm Control Panels can adapt to virtually any application requirement.

The NEO intelligent panels are fully field programmable, via the onboard graphical LCD display and alphanumeric keypad. Front panel programming may encompass defining input to output relationships, configuring output circuit characteristics, entering zone, device, and other text descriptions, and configuring multiple user-access passwords.

The field configuration tool is a powerful, user-friendly programming tool that allows users to perform virtually any I/O relationship with multiple criteria. Simple drop down menus with point-and-click operation makes project commissioning and troubleshooting fast and efficient.

Each NEO intelligent panel can accommodate remote graphical LCD annunciators (with or without system control capabilities) on the peer-to-peer network. Multiple annunciator locations can be created based on installation demands. These locations can have either: no system control, partial system control, or full system control. In addition, information on system status changes can be vectored, allowing displays to receive only information pertaining to specific events. The NEO intelligent panels can accommodate very large, sophisticated applications with relative ease. When installations exceed a single panel’s capacity the Shield peer-to-peer network may be implemented, providing up to 200 network nodes.

Designed with the technician in mind, each module of the NEO Intelligent Fire Alarm Control Panel is easy to install and service. The integral power supply offers status LEDs, temperature compensated charging and the ability to operate directly from the batteries when AC supply is not yet available at the installation site.



TECHNICAL DATA SHEET

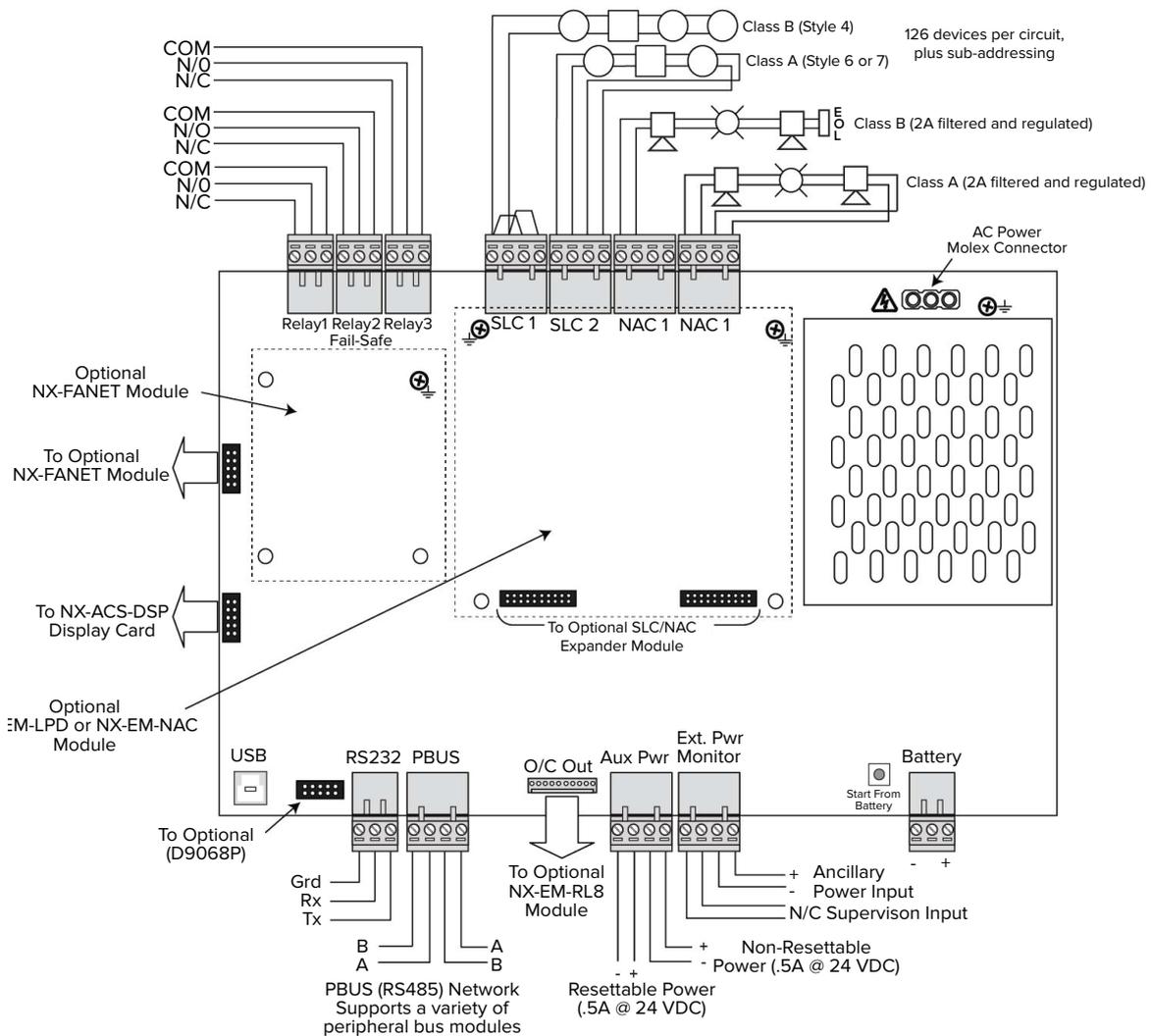
Button (Keys)

-  Reset
-  Ack (panel buzzer acknowledge)
-  Resound (resound signals)
-  Silence (silence signals)
-  Fire Drill
-  Function Keys (3 - programmable control buttons)
-  Navigation Keys (up, down, left, right and tick [center])
-  12 Button Keypad (numbers, letters, esc and menu)

LED Indicators

Alarm	Red
Pre-Alarm	Red
Disable	Yellow
Test	Yellow
P.A.S.	Yellow
Power	Green
Supervisory	Yellow
NAC Silenced	Yellow
NAC Trouble	Yellow
NAC Disabled	Yellow
System Trouble	Yellow
Programming	Yellow
Programmable LED 1	Red
Programmable LEDs 2-5	Yellow

WIRING DIAGRAM



TECHNICAL DATA SHEET

SPECIFICATION

Operating Voltage	120 VAC (1.4A) - 240 VAC (0.7A), 50/60 Hz	
System-Brown-Out	98 VAC nominal	
Battery Circuit		
Charging Voltage	27.4 VDC nominal	
Temp. Compensated Charging Current	2 Amp	
Battery Derating Factor	0.83 A	
Battery Capacity	7 Ah (minimum), 48 Ah (maximum)	
Battery Fuse	5 A @ 240 VAC, Time Delayed, Ceramic, High Breaking (In-line Wire Link)	
Fire, Supervisory, and Trouble Relays (Power Limited - when utilizing system power)		
Type	Form "C"	
Rating	1 A @ 30 VDC / VAC	
Trouble Relay	Normally Active (fail-safe operation)	
Auxiliary Power Outputs (Power Limited)		
Resettable		
Voltage	24 VDC	
Current	0.5 A	
Reset Time	10-15 Seconds	
Non-Resettable		
Voltage	24 VDC	
Current	0.5 A	
Humidity	85% RH	
Temperatures 4.5 lb		
Operating	32 °F - 120 °F (0 °C - 49 °C)	
Recommended Room	60 °F - 86 °F (15 °C - 27 °C)	
Enclosure Dimensions (H x W x D)		
Back Box	574.04 mm x 368.3 mm x 139.7 mm	
Housing	612.14 mm x 406.4 mm x 160.02 mm	
SLC Loop (Power Limited)		
Class (Style)	Class A or B (Style 4, 6 or 7)	
Voltage	24 VDC	
Minimum Return Voltage	17 VDC	
Current	0.5 A	
NAC Circuits (Power Limited)		
Class (Style)	Class A or B	
Voltage	24 VDC (filtered and regulated)	
Minimum Return Voltage	16 VDC	
Current	2 A (each)	
Maximum Voltage Drop	3 VDC	
Maximum Line Impedance	1.5 Ω	
RS232 Supervised, Optically Isolated		
Baud Rate	9600	
Parity	None	
Data Bits	81	
Stop Bits	1	
Base Card Operating Current		
NX-ACS-1L	Quiescent	Alarm
	110 mA	195 mA
NX-ACS-2	110 mA	195 mA
NX-ACS-4	175 mA	260 mA

ORDERING INFORMATION

NX-FACP-1L	Intelligent Fire Alarm Control Panel with cabinet, power supply/charger, 1 SLC, 2 NACs, 3 auxiliary relays (cabinet supports batteries 7 Ah - 18 Ah) (127 Addressable Points)
NX-FACP-2	Intelligent Fire Alarm Control Panel with cabinet, power supply/charger, 2 SLCs, 2 NACs , 3 auxiliary relays (cabinet supports batteries 7 Ah - 18 Ah) (254 Addressable Points)
NX-FACP-4	Intelligent Fire Alarm Control Panel with cabinet, power supply/charger, 4 SLCs, 4 NACs , 3 auxiliary relays (cabinet supports batteries 7Ah - 18Ah) (504 Addressable Points)
NX-FACP Base Card Option Modules	
NX-EM-LPD	2 SLC, 2 NAC Expander Card (NX-FACP-2 compatible only)
NX-EM-NAC	2 NAC Expander Card (NX-FACP-2 compatible only)
NX-EM-PSU	5 Amp Expansion Power Supply Module (NX-FACP-2 compatible only)
NX-FANET4	Network Interface Card (Style 4)
NX-FANET7	Network Interface Card (Style 7)
NX-EM-RL8	8-Way Relay Output Card (Programmable)
NX-EM-012	Thermal Strip Printer