


MPC-7000 Intelligent Fire Alarm Panel

Features

- Two intelligent Signaling Line Circuits, expandable to 3, or 4
- Each SLC loop supports up to 252 addressable Inputs AND signal/relay outputs (504 inputs/outputs total)
- Addressable devices are polarity insensitive
- Devices operate on standard wire-no twist or shield required
- FireSmart Application Specific fire detection
- 4 Class B/ 2 Class A, expandable 12 Class B or 6 Class A notification appliance circuits
- Up to 8A NAC Power
- Built in strobe synchronization protocol
- 80 Character backlit LCD display
- Optional Peer-to-Peer networking using MPC-Net
- One man walk test (Silent or Audible)
- Auto Program Feature
- UP to 16 remote LCD Displays with control capabilities
- Programmable from front keypad, or Windows based PC programming software
- Maintenance and technician level passwords
- Optional internal DACT
- Optional City Tie module
- 2000 event history log
- Made in the USA, ISO 9001 quality crafted
-  UL 864, MEA & CSFM Listed and FM Approved

Description

The MPC-7000 is an advanced modular fire alarm panel. It features analog/addressable detection, programming, and memory capability. It's base configuration includes two analog/addressable loops, with four notification appliance output circuits.

Operating controls and indicators are mounted behind a locked cabinet door. An 80-character LCD display provides specific indications for addressable devices, while LEDs indicate general panel status.

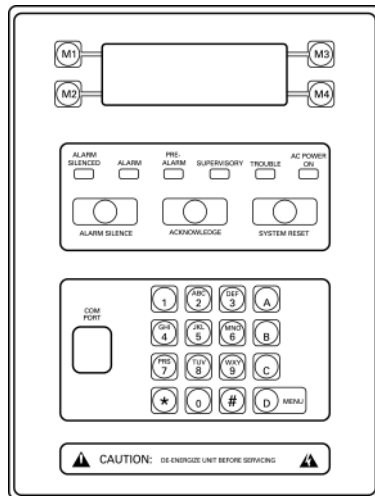


MPC-7000

Hardware Configuration

The main termination board mounts in the rear of the panel. The main power supply is physically contiguous with the main termination board. The MPC-7000 main termination board provides the interface for external system connections, a platform for the loop driver boards and four NAC circuits. Expansion boards may be used to add additional loop capacity. The loop capacity may be expanded to 3 or 4 loops. A signal expansion board also provides 8 more NAC circuits.

The front display PCB mounts behind a hinged frontplate. The system processor and low-level logic are included on this board to leave the power handling to the heavier boards in the back of the box. Since displays for any number of zones are handled through this board, no expansion of this board is required for system expansion.



All normal operation is controlled from the front of the panel via membrane switches. Displays are provided by an 80-character, alphanumeric, backlit LCD display and by discrete LED indicators for major panel functions.

The 80-character LCD display is used to display event data, including alarms, supervisories, troubles, and presentation of history. The display is controlled by a set of four membrane switches. A back light is included to assure visibility in low light, but to conserve power, it is only activated during a reported event.

Minimum Control Unit Configuration

- A. Intelligent Signaling Line Circuit – The main termination board mounts 2 addressable loop interface boards. This may be expanded to 3 or 4 loops. Addressable devices are polarity insensitive and can operate on untwisted, unshielded wire.
- B. Notification Appliance Circuits – The base panel has four independent NACs. Each circuit can be selected to give continuous output, one of eight sounding patterns.

- C. Dry Contacts – 4 programmable dry relay contacts are provided.
- D. City Tie – The main board supports a city tie module that transmits local energy and reverse polarity
- E. Digital Dialer Output – The main termination board supports an optional MPC-DACT, providing system event data to a remote receiving station.
- F. Remote Annunciation – The MPC-7000 panel will drive up to 16 annunciators (RDC-2) and 8 remote processors (SAU-2 & SRU-2) on an RS-485 communication line.
- G. Power Supply – 9A, 24V nominal power supply provides all operating power to the panel for both standby and alarm conditions.

Optional Control Unit Configuration

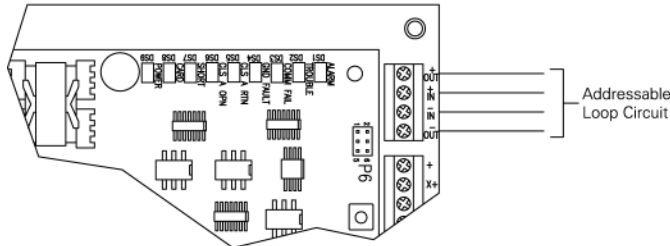
- A. Device Loop Card (FDLC) – Adds 1 addressable loop that supports 252 inputs AND signal/relay outputs.
- B. MPC-DACT Module – The MPC-DACT provides a dual line digital alarm communications transmitter. It's parameters are set via the control unit programming sequence. The MPC-DACT may be mounted in the main enclosure.

The MPC-DACT is compatible with the following formats: SIA DCS 8, SIA DCS 20, Ademco Contact ID, 3/1 1400 Hz, 3/1 2300 Hz, 4/2 1400 Hz and 4/2 2300 Hz.
- C. MPC-Networking – The MPC-7000 is MPC-Net networking compatible.

Auxiliary Devices

- A. Remote LCD Annunciator (RDC-2) – The remote LCD annunciator consists of a backlit 80 character, alphanumeric display, 4 menu buttons, 4 dedicated buttons for operator interaction, 6 LED indicators, and a security key switch.

Wiring, Main Termination Board

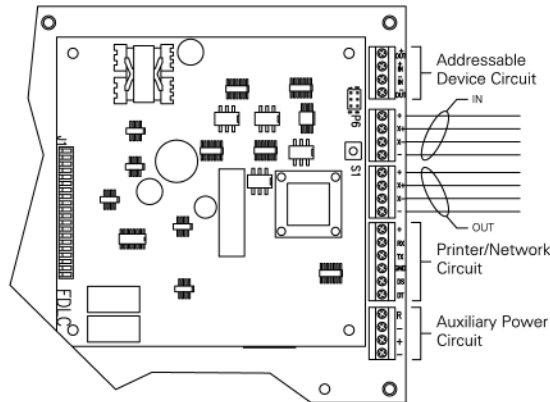
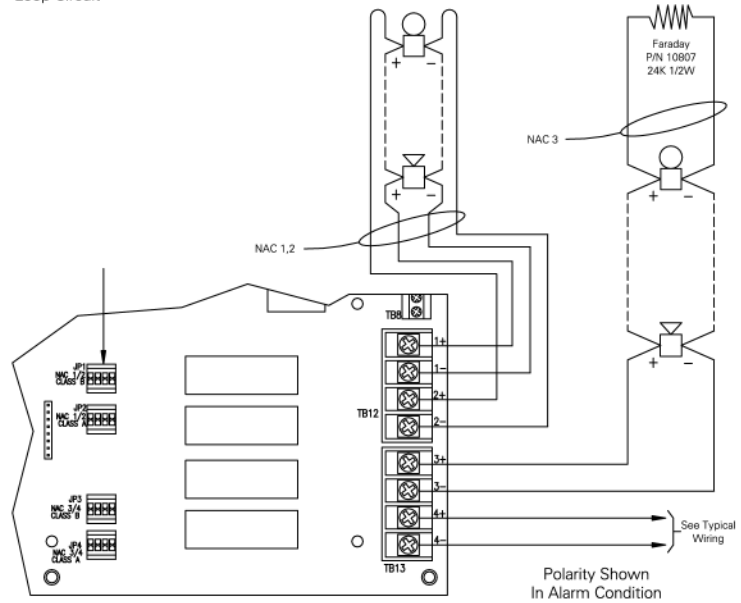


Addressable Device Circuit
 Style 4 or 6 Operation
 24VDC nominal
 Wire Resistance-50 ohms max
 (see Line Resistance Graph)
 Supervised, Power Limited
 See Owner's Manual for Compatible Devices

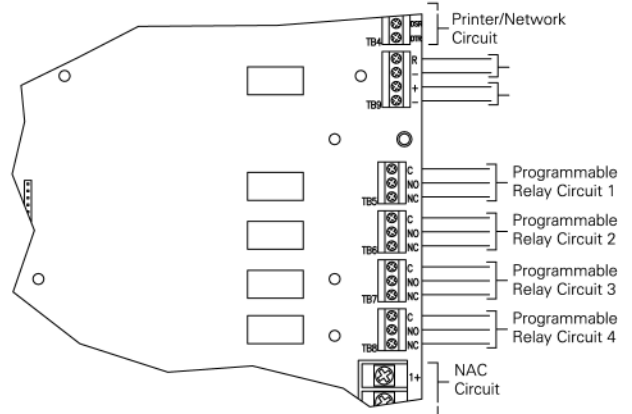
NAC Rating:
 Alarm Voltage: 24V FW nominal
 Max. Alarm Current: 1.5A/NAC circuit
 Max. Ripple: 16VAC
 Max. Wire Voltage Drop: 1.0VDC
 Max. Standby Current: 1.0mA
NOTE:
 The maximum total current for the MPC-7000 NACs is 5.0A and 8.0A with the optional additional Transformer P/N NPE-1

Typical Notification Appliance Circuit Style Z, Class A
 Supervised, Power Limited
 See Owners Manual for Compatible Devices

Typical Notification Appliance Circuit Style Y, Class B
 Supervised, Power Limited
 See Owners Manual for Compatible Devices



Serial Interface Circuit,
 (=, -) 24VDC nominal, 0.4 max
 (X+, X-) RS-485 levels
 Wire Type-Twisted Pair For Data
 Wire Resistance-11 ohms/line (4000' max)
 Supervised, Power Limited,
 See Owner's Manual for Compatible Devices.



Auxiliary Power Outputs
 0.4A max. @24VDC nominal
 Unsupervised, Power Limited
 Maximum current of all auxiliary outputs circuits, Serial Interface Circuit and option boards is: 0.5A for the 6000
 1.0 A for the 7000

Status Relay Contacts
 (Shown in normal standby condition)
 1A 28VDC max Resistive For Power Limited Source, Unsupervised

General Specifications

Environmental

Operating temperature: 32-120°F (0-49°C)
 Relative Humidity - 85% @ 86°F

Primary Supply

Primary input voltage - 120 Vac (50/60 Hz.),
 240 Vac (50/60 Hz.) Maximum primary input current -1.3 amp @ 120 Vac

Secondary and Trouble Power Supply

24 volt lead-acid battery with 7 AH-38 AH capacity can charge 100AH batteries with addition of HBC-1

Auxiliary Power Outputs

Current - 1 amp resettable/non-resettable power outputs

Status System Relays

4 relays rated @ 1 amp, 28 Vdc resistive

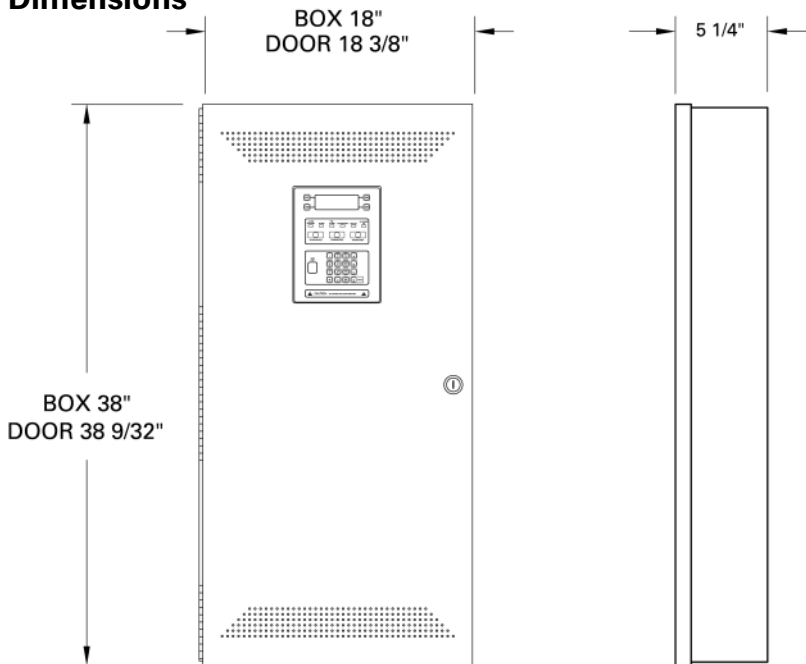
NAC Circuits

Rating per NAC circuit, 1.5A ea., 8 max.

Battery

Base cabinet will accommodate a 18 battery set. Larger batteries will require separate enclosure

Dimensions



Ordering Information

Model	Description	Part No.
MPC-7000	MPC-7000 Multi Loop Fire Alarm Panel (2 loops base), Red	599-049305FA
MPC-7000B	MPC-7000 Multi Loop Fire Alarm Panel (2 loops base), Black	599-049306FA
Options		
RDC-2	Remote Annunciator	500-648980FA
NPE-1	Transformer to expand NAC power	500-649120FA
SRU-2	RS-485 Relay Card	500-649308FA
SRE-8	8 Relay Extender	500-649337FA
SLU-2	RS-485 LED Driver Card (16 Outputs)	500-649307FA
SLE-16	16 LED Driver Extender	500-649338FA
FAE-21	ACC. Enclosure for RS-485 Devices	500-401403014FA
MPC-Dact	Dialer for MPC-6000 and MPC-7000	500-649330FA
CT-1K	CityTie Module for MPC-6000 and MPC-7000	500-649336FA
FDLC	Faraday Device Loop Card (252 Points)	500-033090FA
NEM-1	NAC Expansion Module, Adds 8 NACs	500-648930FA
SFTK-7B	Semi-Flush Trim for MPC-7000, Black	500-648994FA
SFTK-7R	Semi-Flush Trim for MPC-7000, Red	500-648995FA
LEM-1	Loop Expander	500-648960FA
HBC-1	High Power Battery Charger, Required for batteries higher than 38ah	500-648970FA



Siemens Building Technologies, Inc.
 8 Fernwood Road • Florham Park, NJ 07932
 Tel: (973) 593-2600 • Fax: (973) 593-6670
 Web: www.faradayfirealarms.com

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