

## Specifications

### Features

#### Conventional Features

- Four conventional zone (expandable to eight) Fire Alarm Control Panel (FACP)
- Built-in Digital Alarm Communicator Transmitter (DACT)
- 4 Programmable authority levels
- Each detector zone supports up to 20 two-wire smoke detectors
- Up to 18 programmable relay outputs
- 32 character backlit LCD display
- Supports up to four D7033 Fire System Controllers and eight D7030X Series LED Annunciators
- Two Notification Appliance Circuits (NAC) on board
- Internal 24VDC, 4 amp NAC power supply
- Programmable through front panel interface or remote D7033 Fire System Controller
- 99 event history buffer
- Option Bus provides serial data interface for fire alarm accessories
- UL Listed for fire applications
- Compatible with RAM IV
- Wheelock™ Signal Sync

#### Multiplex Features (D7039)

- Expandable to 255 addresses using multiplex technology
- Relay outputs expandable to 58
- 499 event history buffer
- PINs available for up to 100 system users
- Compatible with RAM IV

### Description

#### Conventional D7024 FACP

The Radionics D7024 is a fully integrated FACP that provides four zones and is capable of supporting both two-wire and four-wire detectors. Each zone can support up to 20 two-wire detectors, or any number of four-wire detectors (depending on available power).

Two Notification Appliance Circuits (NAC) provides up to 4 amps of 24-volt power to operate horns, strobes, bells, and other notification appliances. Each NAC can be programmed to provide the Wheelock™ Synchronized Output.

System control can be accessed through a built-in user interface in the panel, or through the remote D7033 Fire System Controllers connected to the system.



**D7024 Fire Control/Communicator**

A viewing port in the keyed panel enclosure door leaves the system status LEDs and LCD display visible while maintaining system control key security.

Unlocking the enclosure door provides access to the system keys for silencing alarm and trouble conditions, zone bypassing, detector resetting, testing, and other fire functions as well as programming. These functions are also available on all D7033 Controllers connected to the system.

All system controllers provide custom text annunciation on a 32 character, backlit, two-line LCD display. All system controllers also have built-in sounders. Backlight intensity and sounder volume are programmable. 16 Personal Identification Numbers (PIN) are available for access to system control. Each number can be assigned an authority level to limit system control functions that may be accessed.

The system stores events in a 99-event memory log.

The D7024 Communicator reports to two telephone numbers with full single, double, and backup reporting and communicates in BFSK, SIA, Contact ID, Modem IIIa<sup>2</sup> and 4/2 and 3/1 Tone Bursts.

The D7024 enclosure has space for additional accessory modules and two D1218 12V, 17 Ah batteries or two D126 12V, 7 Ah batteries.

#### Multiplex Technology (D7039)

The D7024 conventional system features can be enhanced, when running version 2.02 or higher firmware with the addition of a D7039 Multiplex Expansion Module. The D7039 expands the base system up to 255 addressable points, increases the number of relay outputs to 58 and adds an additional 400 events to the history buffer for a total of 499 events. The D7039 also allows for up to 100 system users (an addition of 84 PINs from the base system).



# D7024

## Application

The D7024 can be used in commercial and public building applications such as schools, universities, manufacturing plants and health care facilities.

It is listed by UL for Central Station, Local, Auxiliary and Remote Station Systems.

## Installation

The D7024 enclosure and the Control/Communicator are shipped together. All mounting hardware necessary for mounting the Control/Communicator in the enclosure is included. The control panel must be installed in accordance to the National Electrical Code (NFPA 70), the National Fire Alarm Code (NFPA 72) and the Authority Having Jurisdiction.

## Specifications

Power	
Input	120 V, 60 Hz, 1.5 A max (20 A fused supply circuit).
NAC	24 VDC nominal, 4 A; circuit rating: 2.5 A.
Auxiliary	24 VDC nominal, unfiltered, 1.0 A.
Smoke	24 VDC nominal, filtered, 1.0 A.
Option Bus	12 VDC nominal, 500 mA.
Notification Appliance Circuits (NACs)	
NAC Outputs	2 on-board
NAC Wiring	Standard Class B, Style Y operation. Use D7015 for Class A, Style Z operation.
Relays	
On-board Relays	Two Form "C" relays rated at 5 A, 28VDC each.
Off-board Relays	Up to two D7035 Octal Relay Modules providing eight Form "C" relay outputs each. Contacts rated at 5 A, 28 VDC.
On-board Conventional Points	
Number of 2-Wire Circuits	Four circuits, expandable to eight using a D7034 Four Point Expander Module.
Circuit Type	Class B, Style B (use a D7014 for Class A, Style D operation).
EOL Resistor	2.21K ohms (P/N: 25899, UL listed).
Supervisory Current	8-20 mA
Required Alarm Current	25 mA
Max. Short Circuit Current	44 mA
Max. Line Resistance	150 ohms
Circuit Voltage Range	20.4 – 28.2 VDC
Max. Detectors per Point	20 detectors (2-wire)
Total Detector Standby Current	3 mA max.
Response Time	Fast = 0.5 sec; programmable from 1 to 89 seconds.

Storage and Operating Temperature	
Temperature	+32° to 120°F (0° to +49°C)
Off-board Addressable Points (w/ D7039 Multiplex Expansion Module)	
Number of Signaling Line Circuits (SLC)	Two Class B, Style 4 SLC's (can be combined into one Class A, Style 6 circuit)
Enclosure Dimensions	
Width	15 in. (38.1 cm)
Height	20.8 in. (52.7 cm)
Depth	4.3 in. (10.8 cm)
Keypads/Annunciators	
D7033 Keypads	Four (max.)
D7030X Series Annunciators	Eight (max.)
Wire Type	#18 AWG (min.); four-conductor F.P.L.
Option Bus Wiring	4,000 ft. (1,219.2 m) max.

## Listings and Approvals

- Underwriters Laboratories UL 864
- CSFM
- NYC-MEA 12-92-E Vol. VII

## Ordering Information

Model	Description
D126 (2)	12 V, 7 Ah Battery (6 in. x 2.6 in. x 3.94 in.)
D185	Reverse Polarity Signaling Module
D275	End Of Line Power Supervision Module
D1218 (2)	12 V, 17 Ah Battery (7.13 in. x 3 in. x 6.63 in.)
D7014	Class A Zone Converter
D7015	Class A NAC Converter
D7024	24VDC Fire Control/Communicator
D7030X	Eight Point LED Annunciator
D7030X-S2	Eight Point LED Annunciator (2 Yellow, 6 Red)
D7030X-S8	Eight Point LED Annunciator (8 Yellow)
D7031	Silence Reset Module
D7032	8 Zone LED Annunciator Expander
D7033	LCD Fire System Controller Keypad
D7034	Four Point Expander
D7035/B	Octal Relay Module/Box
D7036	LCD Annunciator (Silence and Reset Key enabled)
D7038	Remote NAC Power Supply
D7039	Multiplex Expansion Module
D7042/B	Multiplex Eight-Input Remote Module
D7048/B	Multiplex Octal Driver
D7050	Photoelectric Smoke Detector w/ Chamber Check Dirty Chamber Sensing
D7050TH	Photoelectric Smoke Detector w/ High Temperature Sensing & Chamber Check Dirty Chamber Sensing (D7050-B6 – 6 in. Base Required)
D343	Multiplex Duct Smoke Detector