AFC-1000V

Fire Alarm Control Panel

Features

- Supports single and dual channel applications
- Flexible programming
- Up to 2 hours of message storage
- Up to 255 customizable audio patterns
- Internal message library of predefined messages and tones
- Ability to record and import message files from a computer
- Text-to-speech to translate custom messages through a variety of natural and fluent sounding voices
- Expandable up to 104 programmable push buttons for speaker and ECS assignment
- User push buttons for All Call and control
- A supervised auxiliary input to interface with low-level audio sources
- Background Music
- Connect up to 10 SCA (single channel) or DCA (dual channel) amplifiers
- Remote interface control using the LOC-1000 (Local Operator Console)
- Optional Fire Fighters Telephone system
- Equipped with on-board microphone
- All features of the AFC-1000 included
- UUKL Listed for Smoke Control



ASSEMBLED IN THE USA

NYC Fire Dept.
Certificate of Approval
6266

UL LISTED

Description

The AFC-1000V is an enhanced version of the AFC-1000 addressable fire alarm system with voice integration. All pre-existing fire panel features are included with the addition of innovative voice functionality.

The AFC-1000V is equipped with an ECS user interface providing 8 programmable push buttons for speaker and ECS zone assignment, LED indicators to display status and trouble conditions, and user control buttons for All Call and CTRL.

The VM-1000 voice module and digital message repeater delivers audio to designated remote amplifiers. The VM-1000 contains two V-Link channels (audio riser outputs) to support single & dual channel amplifiers, includes a supervised low level auxiliary input to interface with external audio sources, and supports applications requiring background music.

The optional SB-24 (Switch Board w/24 Programmable Switches) will offer 24 additional programmable push buttons. A maximum of four (4) SB-24's can be installed, offering up to 96 programmable push buttons.

The AFC-1000V can link up to ten (10) SCA (single channel amplifier) or DCA (dual channel amplifier) amplifiers, thirty (30) LOC-1000 (local operator console) and one (1) FFT-1000 (Firefighter Telephone System).

The Audio Patterns option of the Potter Panel Programmer offers an internal library of predefined messages and tones for common emergency conditions, as well as recording and importing audio files directly from a computer, allowing users to select and create audio files with ease.

The exclusive Text-To-Speech feature translates custom digital text into fluent and natural sounding voices and offer multiple voices and languages to accommodate customer preferences.

Technical Specifications

Dimensions	21 3/8"W x 29 1/8"H x 4 7/8"D
AC Mains	5.0 Amps @ 120 VAC 50/60 HZ 3.0 Amps @ 240 VAC 50/60 HZ
Enclosure	16 gauge cold rolled steel with removable locked door with Lexan viewing window
Battery	Standby Current - 130 mA Alarm Current - 220 mA • 10 Amps power for NACs, I/O, and P-Link • 3 Amps per NAC, regulated • 1 Amp per I/O circuit, regulated • Battery Charger range 8-55 Ah • Battery Charger voltage 27.3 VDC • P-Link maximum current of 1 Amp
Temperature and Humidity Range	32° to 120° (0°C to 49°C) with a maximum humidity of 93% non-condensing.
Standards	• NFPA 12, 12A, 13, 15, 16, 17, 17A, 70, 72, 750, and 2001 • ANSI/UL 864 - Local (L), Remote Station (RS), Central Station (CS), Propriety (PPU), Auxiliary (AUX).Type of Service: Automatic (A), Manual (M), Water flow (WF) Sprinkler Supervisory (SS) Type of Signaling: Digital Alarm Communicator (DAC), March Time (March), Non Coded (NC), Reverse Polarity (Rev Pol), Other Technologies (OT) • IBC 2000, 2003, 2006, 2009, 2012

SLC Loop Accessories

The control panel may be connected with up to 1,270 addressable devices or modules in any combination. The SLC is not restricted by any special wire requirements and may be wired with any wire that complies with the NEC.

SLC Loop Devices

Device	Description
Detector Heads	
PAD Series-PD	Analog Photoelectric Smoke Detector; Smoke Detection compliant with UL 268 7th Edition
PAD Series-PHD	Combination Analog Photoelectric Smoke/Heat Detector; Smoke Detection compliant with UL 268 7th Edition
PAD Series-PCD	Combination Photoelectric Smoke/Carbon Monoxide Detector; Smoke Detection compliant with UL 268 7th Edition; Carbon Monoxide detection compliant with UL 2075
PAD200-PCHD	Combination Photoelectric Smoke/Heat/Carbon Monoxide Detector. Smoke detection compliant with UL 268 7th Edition; Heat detection with a fixed temperature range of 135° to 185° F and UL 521 7th Edition compliant; Carbon Monoxide detection compliant with UL 2075
PAD Series-HD	Analog Fixed Temperature (135° - 185°F) or Rate-of-Rise Heat Detector (software selectable)
PAD Series-DUCTR	Addressable Duct Smoke Detector with Form C Relay
PAD Series-DUCT	Addressable Duct Smoke Detector
PAD Series-CD	Addressable CO Gas detector
PAD200-DD	Addressable photoelectric smoke detector for use in DUCT/DUCTR enclosure
PAD300-DD	Addressable photoelectric smoke detector for use in DUCT/DUCTR enclosure or pendant mount applications
Detector Bases	
PAD100-6DB	6" Round Base; PAD100/200 detector devices only
PAD100-4DB	4" Round Base; PAD100/200 detector devices only
PAD100-IB	Isolator Base; PAD100/200 detector devices only
PAD100-RB	Addressable Relay Base; PAD100/200 detector devices only
PAD100-SB	Addressable Sounder Base; PAD100/200 detector devices only
PAD100-LFSB	Addressable Low Frequency Sounder Base; PAD100/200 detector devices only; Compliant with the Low Frequency Signal Requirements (520 Hz)
PAD100-SPKB	Speaker Base; PAD100/200 detector devices only; Wall or ceiling mount
PAD300-6DB	6" Round Base; PAD300 detector devices only
PAD300-4DB	4" Round Base; PAD300 detector devices only
PAD300-IB	Isolator base; PAD300 detector devices only
PAD300-RB	Addressable Relay Base; PAD300 detector devices only
PAD300-SB	Addressable Sounder Base; PAD300 detector devices only
PAD300-LFSB	Addressable Low Frequency Sounder Base; PAD300 detector devices only; Compliant with the Low Frequency Signal Requirements (520 Hz)

SLC Loop Devices (cont.)

Device	Description
Modules & Pull Stations	
PAD100-MIM	Addressable Micro Input Module
PAD100-PSSA	Single Action Addressable Pull Station
PAD100-PSDA	Dual Action Addressable Pull Station
PAD100-SIM	Addressable Single Input Module; 4" square electrical box mounted
PAD100-DIM	Addressable Dual Input Module; Class A mode
PAD100-TRTI	Addressable Two Relay/Two Input Module; Two (2) individually controlled Form-C Relays & two (2) contact inputs
PAD100-NAC	Addressable Notification Appliance Circuit (NAC) Module
PAD100-ZM	Addressable Zone Module
PAD100-IM	Addressable Isolation Module
PAD100-RM	Addressable Relay Module; Single Form C relay
PAD100-LED	Single Addressable LED Module
PAD100-SM	Speaker Module; Provides switching for two audio channels
PAD100-LEDK	Addressable LED and Key Switch; Single gang box mounted
PAD100-DRTS	DUCTR Remote Test Switch; Single gang box mounted and optionally supervised
PAD100-OROI	Addressable One Relay/One Input Module; One (1) Form C Relay and One (1) Input
PAD300-10XIM	Multi-Input Programmable Module; Stacker bracket mounted
PAD300-6XRM	Multi-Output Programmable Module; Stacker bracket mounted

Signaling Line Circuit (SLC) Features

The Potter digital protocol is a proven design for reliability and noise immunity.

- Special cables or conductors not required for connection of the Signaling Line Circuit. (SLC Wiring must be NFPA 70 and NFPA 72 compliant)
- Supports Class A or Class B installations, as well as “T-Taps”.
- 127 points available per loop, with a max wiring distance of 10,000 ft

Sensor Features

Fire alarm control panel sensors provide real time status conditions of the system. Smoke detector sensitivity, heat detector temperature level and drift compensation are all programmable options. The system allows for a day/night mode, where the panel automatically adjusts the sensitivity depending on the time of day. To assist in the reduction of false alarms, smoke detectors also have a maintenance warning that sends a trouble signal when a detector is dirty and can no longer maintain the programmed sensitivity.

User Interface

The fire alarm control panel has a 4 x 40 character LCD display to provide detailed system status information. The following LEDs are standard and provide fire panel status information at a glance:

- AC Power (Green)
- Alarm (Red)
- Earth Fault (Amber)
- Supervisory (Amber)
- Silenced (Amber)
- Trouble (Amber)
- Pre-Release (Amber)
- Release (Red)

Within the secured panel enclosure, there are common control functions such as Silence, Reset, Acknowledge, and Drill, as well as a keypad providing navigation keys to allow for on-board menu navigation and programming.

Ethernet/I.P. Connection

The AFC-1000V is shipped standard with an Ethernet connection.

This connection can be used as the programming port and may be connected to a building’s Wide Area Network (WAN) or Local Area Network (LAN) to provide internet access.

Once connected to the Internet, the panel can be programmed to e-mail alarm, trouble, and supervisory conditions, test information, event history and detector status to an authorized e-mail account. If an e-mail is sent to the panel requesting status, the panel will send a response e-mail containing the event history, detector status, configuration file, or server status to an authorized e-mail account. Additionally, reminders may be set to send an e-mail for service, testing, or other conditions.

In addition, the Ethernet connection is UL listed as an IP communicator. The IP communicator reports to the UL listed Sur-Gard III IP receiver and replaces the traditional phone line alarm communicator/transmitter, providing a more reliable and modern form of communication.

Voice Accessory

SB-24 – Switch bank with 24 programmable push buttons. Maximum of four (4) SB-24s permitted per system.

Voice Interface

The AFC-1000V panel incorporates an SB-8 user interface to specifically display ECS system status. The user interface provides the following LEDs for status indication:

- Ready to Page
- Trouble
- Control Requested
- Remotely Controlled
- Locally Controlled

The common control buttons include All Call, Reset and Ctrl.

P-Link

The AFC-1000V has a proprietary communication protocol that communicates through an RS-485 connection to field devices.

Up to 64 devices may be connected to a single P-Link connection. The P-Link includes the communication terminals and regulated 24 VDC connection for the field devices.

The following field devices are available:

PAD100-SLCE – Analog/Addressable Loop Expansion Module (maximum of 31 per AFC-1000V)

SLCE-127 - Nohmi addressable loop expansion module for retrofit applications

RA-6075R – 2 x 16 character LCD Annunciator with a key pad in a secured metal enclosure

RA-6500R(F) – 4 x 40 character LCD Annunciator with a key pad in a secured metal enclosure. Flush mount version available

LED-16(F) – 16 LED Annunciator with common indicators in a secured metal enclosure. Flush mount version available

PSN-1000(E) – 10 Amp, remote intelligent power supply with 6 NACs, 2 Inputs and a P-Link repeater; Listed in conjunction with the AFC-1000V for releasing circuits

CA-6500 – Class A Convertor; allows the SLC, NACs and P-Link connection to be wired for Class A operation

UD-2000 – Dual line telephone alarm communicator; UL listed

DRV-50 – LED driver expander, provides up to 50 user configurable LED outputs and 4 supervised dry contact inputs.

RLY-5 – Relay module, provides 5 form C relay contacts rated at 3.0 amps 24VDC/125AC

MC-1000 – Multi-Connect allows up to sixty-three AFC series panels to share a single reporting technology

IDC-6 – Initiating device circuit provides 6 programmable inputs

AE-2 – Two card expansion cabinet

P-Link (cont.)

AE-8 – Eight card expansion cabinet

AE-14 – Fourteen card expansion cabinet

FCB-1000 – Fire communication bridge; provides remote mounting of the Ethernet connection

FIB-1000 – Fiber interface module; extends P-Link to multi-mode fiber (2 required)

SPG-1000 – Serial parallel gateway; allows connection to a serial or parallel printer

NOTE: The **FIB-1000**, **FCB-1000** and the **SPG-1000** may be installed in the stacker bracket or ordered with the optional rack mount enclosure.

SCA-2525 – Single channel, 25W, 25V amplifier

SCA-2570 – Single Channel, 25W, 25V or 70V selectable amplifier

SCA-5025 – Single channel, 50W, 25V amplifier

SCA-5070 – Single Channel, 50W, 25V or 70V selectable amplifier

SCA-10070 – Single Channel, 100W, 25V or 70V selectable amplifier

DCA-5025 – Dual channel, 50W, 25V amplifier

DCA-10025 – Dual channel, 100W, 25V amplifier

LOC-1000 – Local operator console

FFT-1000R – Firefighter's Telephone System, Right Hinge Door

FFT-1000L – Firefighter's Telephone System, Left Hinge Door

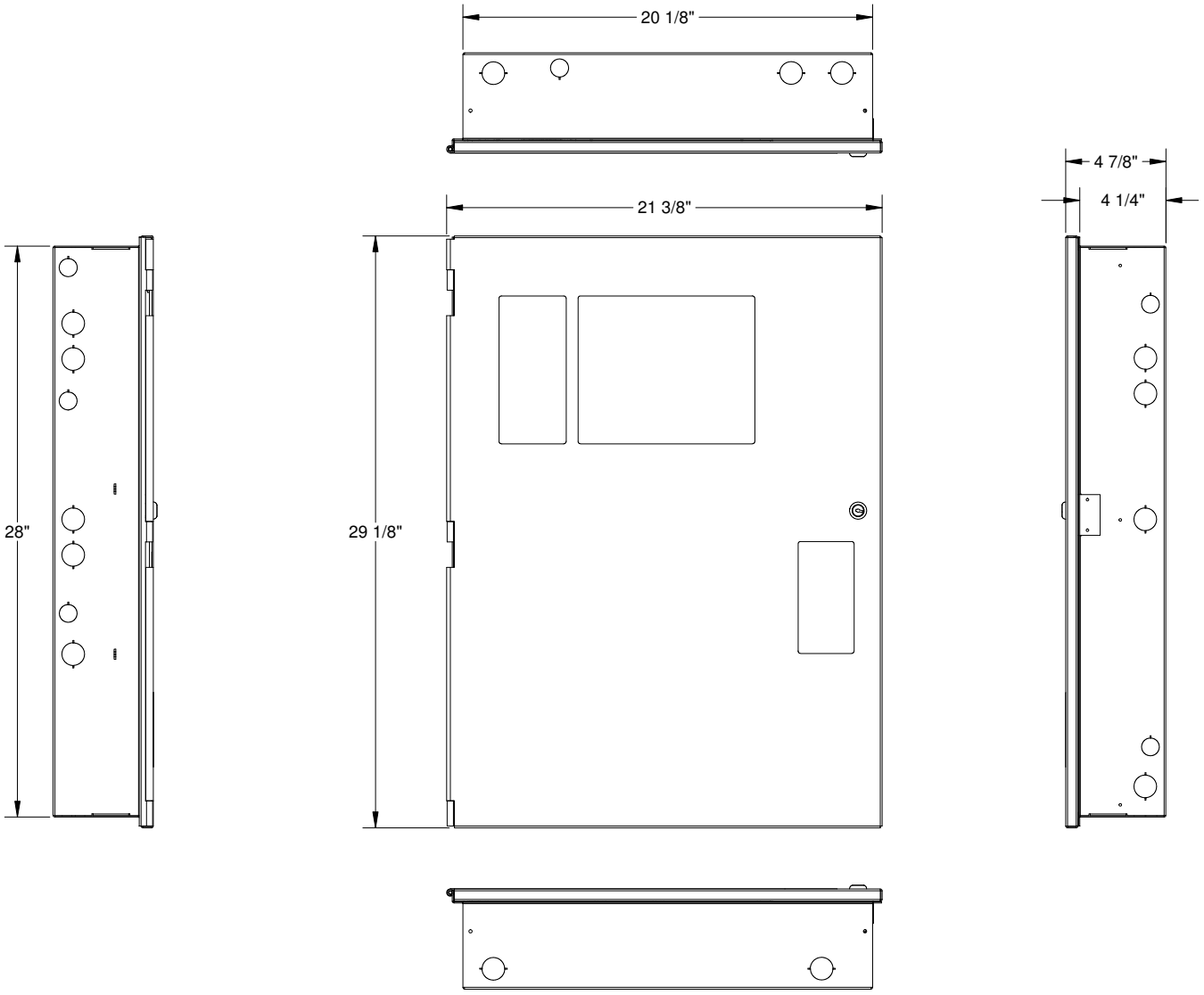
Compatible Releasing Devices

NOTE: For releasing applications, order the Potter EOLD (3005012) for circuits connected to a releasing solenoid or actuator.

For a full list of releasing devices available for use with the AFC-1000V, refer to the Compatible Releasing Devices list (Document number 5403625), available for download from:

Compatible Releasing Devices

Dimensions



Ordering Information

Model	Description	Stock No.
AFC-1000V	AFC-1000V INTEGRATED VOICE SYSTEM	3520670