Reviewed for Code Compliance
Inspections Division
Approved with Conditions

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Cerberus PRO Fire Safety

252-Point and 504-Point Addressable Fire Alarm Control Panel

Models FC922 and FC924

ARCHITECT AND ENGINEER SPECIFICATIONS

- Addressable fire alarm control panel (FACP) intended for mid-size buildings
- Comprised of the following system components:
  - Operating units
  - Periphery boards
  - Power supplies
  - System enclosures
- System features:
  - Supports 252-to-504 addressable devices:
    - One (1) to four (4) 'Class B'; one (1) to two (2) 'Class A' for Model FC922
    - One (1) to eight (8) 'Class B'; one (1) to four (4) 'Class A' for Model FC924
  - Includes one (1) 'Class A' or two (2) 'Class B' notification appliance circuits (NACs)
  - Resettable and non-resettable 24VDC, [nominal] auxiliary power
  - Optional connectivity to a leased-line / city-tie module
  - Releasing module supports activation of releasing valves in pre-action / deluge systems / agent release
  - Off-normal warning message prior to reset
  - Fast and easy set-up with auto-configuration feature
  - Optional digital alarm communication transmitter (DACT)
- UL 864 9th Edition Listed; CSFM & NYC Fire Department Approved

Cerberus PRO two-height-unit enclosure with two (2) windows

Product Overview

The Cerberus PRO Fire Safety Model FC922 (252-point) and FC924 (504-point) addressable FACP is designed to meet the fire-protection needs of mid-size buildings.

This advanced panel offers features typically required in mid-size buildings in a package that is easy to install and competitively priced. Additionally, Models FC922 and FC924 are networkable, allowing the systems to fulfill the growing fire-protection needs of the building. The programming software for the 252 / 504-point fire systems is held in flash electrically erasable programmable read-only memory (EEPROM).

The following Cerberus PRO system components are used in the 252-point / 504-point FACP:

- Operating units
- Periphery boards
- Power supplies
- System enclosures

Other options are available to meet specific needs of the customer. Models FC922 and FC924 are CSFM (Listing No.: 7165-0067:0259) and FDNY (Certificate of Approval: #6104) Approved.

Specifications

Operating Interface Unit

The Operating Interface Unit (Model FCM2018-U3 or Model FCM019-U3) functions as the operating interface and central microprocessor for Models FC922 and FC924.

Either operating interface unit provides multi-use capability for each end-user to efficiently 'Acknowledge' events; to quickly control the NACs of the FACP, and to permit a manual reset of the respective system. Detailed information about the nature and location of the events can also be displayed, via a backlit, 2" —x— 4-3/4" LCD screen and the four-way navigation push button at the top of the panel.

Periphery Boards

The periphery boards (Models FCI2016-U1 and FCI2017-U1) serve as the main operating components for the 252 / 504-point FACP. Each module operates and monitors input-device identity; as well as controls the signaling-line circuits that communicate with smoke detectors and other field devices (i.e. – C-NET).

Specifications — (continued)

Power Supplies

All functions are supported by the power supplies (Model FP2011-U1 or Model FP2012-U1), which eliminate the need for external power supplies.

Further, the 170-Watt power supply (Model FP2011-U1) and 300-Watt power supply (Model FP2012-U1) provide primary, 24VDC nominal power for normal operation to Models FC922 and FC924. Both power supplies are filtered and regulated. Model FP2011-U1 is rated at 6.5 Amps, and Model FP2012-U1 is 11.5A rated.

The 170-Watt power supply incorporates a 4.0A, non-resettable slow-blow fuse on the primary input, and includes a built-in AC-line filter for surge and noise suppression. Model FP2011-U1 mounts in the panel's enclosure, and there are no serviceable Cerberus PRO Fire Safety parts to be maintained.

The 300-Watt power supply incorporates two (2) 6.3A replaceable, non-resettable slow-blow fuses on the primary input and includes a built-in AC line filter for surge and noise suppression. Model FP2012-U1 mounts in the panel's enclosure, and there are no serviceable Cerberus PRO Fire Safety parts to be maintained.

System Enclosures

The Cerberus PRO fire-alarm enclosures and their accessories provide a complete set of hardware for mounting all Cerberus PRO main-system and remote terminal cards and modules.

The hardware allows this Cerberus PRO system to be configured for a variety of applications, as well as for future system upgrades. Included in the enclosure series are back box and door sets; removable mounting plates and clear lenses, as well as blank plates for use with the enclosure doors.

All enclosures come with ground straps for the inner and outer doors, shield termination lugs, grounding lugs, and tie wrap lances for securing wire. All Cerberus PRO height-unit enclosures can also mount system back-up batteries up to 33AH in capacity.

Models FC922 and FC924 utilize a two-height-unit enclosure. The following components comprise a complete two-height-unit enclosure:

- One (1) back box, (Model FHB2002-U1 / R1)
- One (1) or two (2) inner doors, (Models FHD2004-U1 or FHD2005-U1)
- One (1) outer door, (Model FHD2002-U3 / R3 or FHD2003-U3 / R3)
- One (1) or two (2) clear windows, (Model FHD2006-U1)

Note: One (1) window is installed for Model FHD2002-U3 / R3 outer door, and two (2) windows are required for Model FHD2003-U3 / R3.

The approximate size for each two-height-unit enclosure is: 27.5" (70cm.) high; 21.5" (54.6cm.) wide, and 5.75" (14.6cm.) deep. The weight, without any attached components, is approximately 6.3 Lbs. (2858 g).

Additionally, the two-height-unit enclosure supports the following optional components:

- Enclosure trim kit (for flush-mounting)
- Battery bracket (to comply with seismic certification)
- DIN rail kit (provides connection between internal-system wiring and field wiring)

Optional Accessories

NAC Expansion Module

The NAC expansion module (Model FCI2011-U1) provides either of the following additional NACs to the 252 / 504-point panel:

- one (1) 'Class A', or
- two (2) 'Class B' NACs

Each NAC is rated at 3 Amps. Each NAC expansion module is monitored for open-line and short-circuit conditions.

Digital Alarm Communication Transmitter (DACT)

The DACT is used to provide communication between Models FC922 and FC924 and with either a central or remote monitoring station.

The Model FCA2015-U1 module mounts directly on the back enclosure and connects to the periphery boards. The DACT enables remote transmission of alarms and events via a public telephone line.

Releasing Module

The releasing module (Model XCI2001-U1) supports activation of releasing valves in pre-action / deluge systems (including double-interlock pre-action systems, or Sinorix™ engineered fire suppression systems). Activation can be event-controlled or performed by addressable manual pull stations. The releasing module is installed on the periphery board, and supports 'Class B' releasing circuits.

When installed on Models FC922 / FC924, the releasing module contains an integral manual-disconnect switch for releasing circuits. This essential feature protects the releasing circuits from accidental discharge during maintenance.

Leased-Line / City-Tie Module

Model FCI2020-U1, which is installed on the periphery board of the FACP, provides a local-energy output for municipal call-box connection, and gives a reverse-polarity output for leased-line connection.

When used for connection to a municipal call box, the city-tie function supports *Alarm*-event transmission. When used for leased-line connection, the module supports two (2) leased telephone lines for transmitting *Alarm*, *Trouble* and *Supervisory* events.

Specifications — (continued)

Network Module

The C-WEB network module (Model FN2001-A1) is used to network up to 16 FACPs, or one (1) fire terminal, via the C-NET system bus. Model FN2001-A1 is plugged into the Operating Unit (Model FCM2018-U3 or Model FCM2019-U3).

Model FN2001-A1, which connects to a system input / output bus, has ground-fault monitoring, as well as an integrated degrade-mode feature. Redundant networking is accomplished with one (1) network module per panel [Simple-Loop Trouble]. There is electrical isolation between the system bus and the FACP.

Remote Display Terminals

The Remote Display Terminals (Models FT2014-U3 / R3 and FT2015-U3 / R3) are remote annunciators that show the existing status of Models FC922 / FC924.

Light-emitting diodes (LEDs) will illuminate for any given *Alarm*, *Supervisory* and *Trouble* Cerberus PRO-system event. A 2" —x— 4-3/4" LCD screen will give details of the event in alphanumeric form. The display screen can be scrolled, via the four-way navigation button, to reveal additional events.

Model FT2014-U3 / R3 is a display-only remote annunciator that has one (1) button used to silence the local sounder. Model FT2015-U3 / R3 has three (3) control buttons for 'acknowledging' events, 'silencing' audible circuits and 'resetting' the system. Additionally, there are three (3) user-programmable buttons available. Model FT2015-U3 / R3 has an integral key switch that enables the control buttons to operate.

The remote display terminals are remotely connected to Models FC922 and FC924, via the RS—485 interface. Models FC922 and FC924 require the Model FCA2016-A1 RS—485 module to provide communication to the remote display terminals. Model FCA2016-A1 supports Style 4 or Style 6 wiring. Up to eight (8) modules can be supported on a RS—485 bus.

The remote display terminals require 24VDC [nominal] power, and the necessary power can be provided from this Cerberus PRO FACP or from another ®UL Listed, 24VDC power source.

Remote Peripheral Module

The Remote Peripheral Module (Model FCA2018-U1) provides a means of connecting this Cerberus PRO FACP to Model PAL-1 for creating hard copies of system-status and configuration reports. Model FCA2018-U1 is a supervised, intelligent module that has built-in transient protection and plain-decimal addressing.

Model FCA2018-U1 is remotely connected to the Model FCA2016-A1 RS—485 communication bus from any Cerberus PRO Fire Safety system enclosure. Model FCA2018-U1 uses Class B (Style 4) or Class A (Style 6) wiring, and provides two (2) RS—232 serial ports and a one (1) parallel port, thus connecting to Model PAL-1.

Temperature and Humidity Range

Models FC922 and FC924 are ®UL 864 9th Edition Listed for indoor dry locations within a temperature range of 120+/-3°F (49+/-2°C) to 32+/-3°F (0+/-2°C) and a relative humidity of 93+/-2% at a temperature of 90+/-3°F (32+/-2°C).

Related Documentation

Product	Data Sheet Number
Cerberus PRO operating units	9801
Cerberus PRO periphery boards	9802
Cerberus PRO fire terminals	9803
Cerberus PRO DACT	9804
C-WEB / C-NET Network Module	9805
Cerberus PRO power supplies	9806
Cerberus PRO enclosures	9807
NAC expansion module	9808
Cerberus PRO releasing module	9809
Leased-Line / city-tie module	9810
Remote periphery module	9811
Remote display terminals	9812
Single / multi-mode fiber modules	9814
LED / Blank option modules	9816

Details for Ordering

Model Number	Part Number	Description
FCM2018-U3	S54400-C40-A1	Cerberus PRO Operating Interface Unit
FCM2019-U3	S54400-C41-A1	Cerberus PRO Operating Interface Unit
FCI2016-U1	S54400-A55-A1	Cerberus PRO Periphery Board {for 252-point system}
FCI2017-U1	S54400-A56-A1	Cerberus PRO Periphery Board {for 504-point system}
FP2011-U1	S54400-Z59-A1	170-Watt Power Supply
FP2012-U1	S54400-Z60-A1	300-Watt Power Supply
FHB2001-U1	S54400-B47-A1	1HU Back Box, Black
FHB2001-R1	S54400-B47-A2	1HU Back Box, Red
FHD2001-U3	S54400-B45-A1	1HU Outer Door, Black
FHD2001-R3	S54400-B40-A1	1HU Outer Door, Red
FHB2002-U1	S54400-B48-A1	2HU Back Box, Black
FHB2002-R1	S54400-B48-A2	2HU Back Box, Red
FHD2002-U3	S54400-B32-A1	2HU Outer Door w/ 1 Window, Black
FHD2002-R3	S54400-C53-A1	2HU Outer Door w/ 1 Window, Red
FHD2003-U3	S54400-C42-A1	2HU Outer Door w/ 2 Windows, Black
FHD2003-R3	S54400-B46-A1	2HU outer door w/ 2 windows, Red
FHD2004-U1	S54400-B52-A1	Inner Door, Black
FHD2005-U1	S54400-B53-A1	Inner Door, Solid Black
FHD2006-U1	S54400-C46-A1	Clear-Lens Window

Optional Accessories

Model Number	Part Number	Description
FCI2011-U1	S54400-A54-A1	NAC Expansion Module
XCI2001-U1	S54400-A69-A1	Releasing Module
FCI2020-U1	S54400-A57-A1	Leased-Line / City-Tie Module
FCA2018-U1	S54400-A65-A1	Remote Peripheral Module
FCA2016-A1	S54400-A39-A1	RS—485 Module

Details for Ordering — (continued)

Optional Accessories — (cont.'d)

Model Number	Part Number	Description
FT2014-U3	S54400-B80-A1	Remote Display Terminal
FT2014-R3	S54400-B73-A1	Remote Display Terminal, Red
FT2015-U3	S54400-B88-A1	Remote Display Terminal
FT2015-R3	S54400-B16-A1	Remote Display Terminal, Red
FN2006-U1	S54400-A61-A1	Single-Mode Fiber-Optic Module
FN2007-U1	S54400-A62-A1	Multi-Mode Fiber-Optic Module
FCM2022-U3	S54400-C44-A2	Blank Option Module
FCM2023-U3	S54400-C45-A2	LED Option Module
FCA2015-U1	S54400-A63-A1	Digital Alarm Communication Transmitter (DACT)
FTI2001-A1	S54400-A58-A1	Fire Terminal Board
FN2001-A1	S54400-A60-A1	C-WEB / C-NET Network Module

SIEMENS Cerberus™ PRO

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NOTICE — The information contained in this data-sheet document is intended only as a summary, and is subject to change without notice. The devices described here have specific instruction sheets that cover various technical, limitation and liability information.

Copies of these instruction sheets and the *General Product Warning and Limitations* document, which also contains important information, are provided with the product and, are available from the Manufacturer.

Information contained in these documents should be consulted before specifying or using the product. For further information or assistance concerning particular problems contact the Manufacturer.